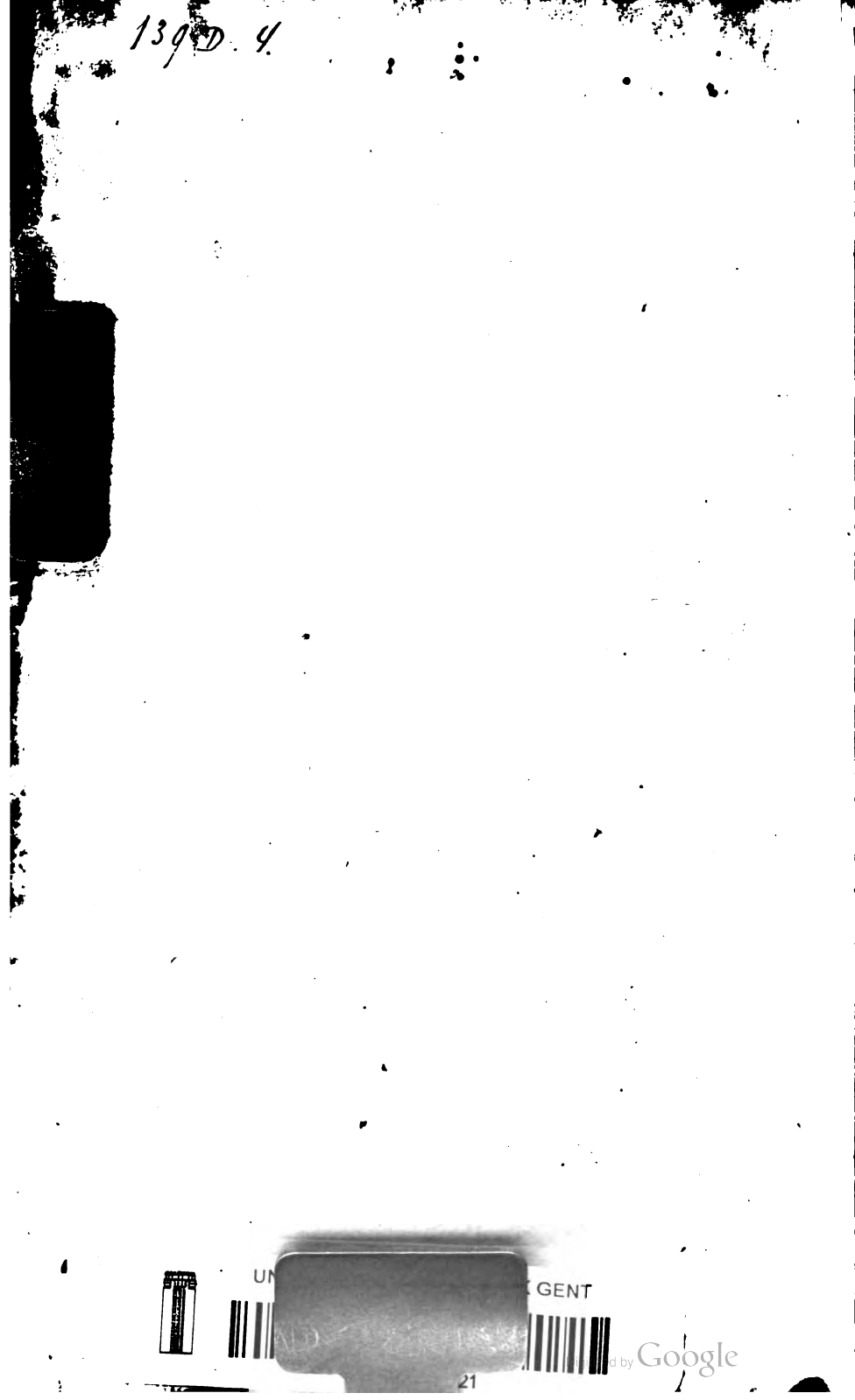
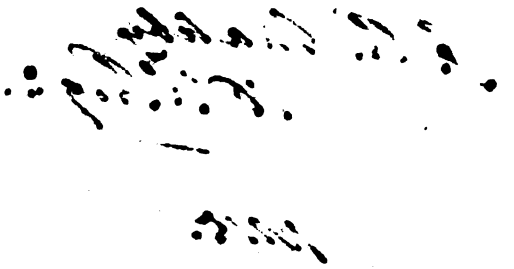


G. R. Walsby
N. Reg:

1815.



THE AMERICAN

UNIVERSAL GEOGRAPHY;

OR

A VIEW OF THE PRESENT STATE

OF ALL THE

KINGDOMS, STATES, AND COLONIES

IN THE KNOWN WORLD.

IN TWO VOLUMES.

THE FIRST VOLUME

Contains a copious Introduction, adapted to the present improved state of Astronomical Science—a brief Geography of the Earth—a general Description of America—an Account of North-America, and its various Divisions, particularly of the United States—a general Account of the West-Indies, and of the four groupes of Islands into which they are naturally divided, and a minute Account of the several Islands—a general Description of South-America, and a particular Account of its various States and Provinces—and a brief Description of the remaining American Islands.

THE SECOND VOLUME

Contains a Geography of the Eastern Continent—a general Description of Europe, and a minute Account of its various Kingdoms and States—a general Description of Asia, its Kingdoms, Provinces, and Islands—an Account of the numerous Islands arranged by modern Geographers under the names of Austral Asia and Polynesia—a general Description of Africa, and a particular Account of its various States and Islands.

TO WHICH ARE ADDED

AN ABRIDGEMENT OF THE LAST CENSUS OF THE UNITED STATES—A CHRONOLOGICAL TABLE OF REMARKABLE EVENTS FROM THE CREATION TO THIS TIME—AN IMPROVED LIST OF ANCIENT AND MODERN LEARNED AND EMINENT MEN—AND A COPIOUS INDEX TO THE WHOLE WORK.

THE WHOLE COMPREHENDING A COMPLETE

SYSTEM OF MODERN GEOGRAPHY.

ACCOMPANIED BY A NEW AND ELEGANT

General Atlas of the World,

CONTAINING (IN A SEPARATE QUARTO VOLUME,)

SIXTY THREE MAPS,

Comprising, as far as they could be obtained, all the latest Discoveries to the present time.

BY JEDIDIAH MORSE, D. D. F. A. A. S. H. S.
Minister of the Congregational Church in Charlestown.

SIXTH EDITION.

Arranged on a new plan, and improved in every part by a laborious examination of most of the late respectable Voyages and Travels, in Europe and Asia, by a free use of the information in the Abridgement of Pinkerton's excellent Geography, and by the late admirable Statistical Tables of Hassel.

VOLUME I.

BOSTON:
PUBLISHED BY THOMAS & ANDREWS, AND SOLD, WHOLESALE AND RETAIL, AT THEIR BOOKSTORE, NO. 45, NEWBURY-STREET—MAY, 1812.

J. T. BUCKINGHAM, PRINTER, WINTER-STREET.

DISTRICT OF MASSACHUSETTS, to wit:

District Clerk's Office.

BE IT REMEMBERED, that on the twenty third day of April, A. D. 1812, and in the thirty sixth year of the independence of the United States of America, Thomas and Andrews, of the said district, have deposited in this office the title of a book, the right whereof they claim, as proprietors, in the words following, to wit:

"The American Universal Geography, or a view of the present state of all the kingdoms, states, and colonies in the known world. In two volumes. The first volume contains a copious introduction adapted to the present improved state of astronomical science—a brief geography of the earth—a general description of America—an account of North-America, and its various divisions, particularly of the United States—a general account of the West-Indies, and of the four groupes of islands into which they are naturally divided, and a minute account of the several islands—a general description of South-America, and a particular account of its various states and provinces, and a brief description of the remaining American islands. The second volume contains a geography of the eastern continent—a general description of Europe, and a minute account of its various kingdoms and states—a general description of Asia, its kingdoms, provinces, and islands—an account of the numerous islands arranged by modern geographers under the names of Austral Asia and Polynesia—a general description of Africa, and a particular account of its various states and islands. To which are added, an abridgement of the last census of the United States—a chronological table of remarkable events from the creation to this time—an improved list of ancient and modern learned and eminent men—and a copious index to the whole work. The whole comprehending a complete system of modern geography. Accompanied by a new and elegant general atlas of the world, containing (in a separate quarto volume) sixty three maps, comprising, as far as they could be obtained, all the latest discoveries to the present time. By Jedidiah Morse, D. D. F. A. A. S. H. S. minister of the Congregational church in Charlestown. Sixth edition. Arranged on a new plan, and improved in every part by a laborious examination of most of the late respectable voyages and travels, in Europe and Asia, by a free use of the information in the abridgement of Pinkerton's excellent geography, and by the late admirable statistical tables of Hassel."

In conformity to the act of the congress of the United States, intitled "an act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned;" and also to an act intitled, "an act supplementary to an act, intitled, an act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned; and extending the benefits thereof to the arts of designing, engraving, and etching historical, and other prints."

WILLIAM S. SHAW,

Clerk of the District of Massachusetts.

PREFACE.

THE first edition of this work was published in 1789, in an octavo volume of 534 pages. It was chiefly confined to a description of America, and called THE AMERICAN GEOGRAPHY.

In 1793 the work was enlarged to 1250 pages, and published in two volumes, 8vo. under the title of THE AMERICAN UNIVERSAL GEOGRAPHY; as it professedly embraced a description of the whole world. Three years after it received a new and large impression, with very considerable improvements, and was increased in size to 1500 pages.

A fourth edition appeared in 1801 and 1802, which, though but little enlarged, was enriched with much new information, inserted in place of obsolete or less important matter, omitted or abridged.

In these successive editions there was a gradual increase in the number of maps. In this department, however, owing to the imperfection of American maps, and the want of experienced artists, the author was never able to succeed in a degree equal to his wishes.

In 1805 a fifth edition was published; when the second volume, particularly, received important alterations and improvements. This edition was accompanied with "*a new and elegant general atlas*, containing SIXTY THREE maps, drawn by Arrowsmith and Lewis."

The present edition is so greatly altered, both as to matter and plan, in consequence of the great changes, which have taken place in the world, and the flood of information, which has been poured upon us, that the author has thought it expedient to alter the title of his work, and to obtain a new copy right. It may probably gratify his readers to be informed what are the most important alterations in this edition, and the authorities* on which they were made.

In the INTRODUCTION, *the Explanation of Terms, the Solar System, the Fixed Stars, and the Methods of ascertaining the Latitude and Longitude*, are chiefly, or wholly written anew. In some other parts of the Introduction material alterations have been made.

The article THE EARTH is now, for the first time, introduced into a system of geography. The propriety of an article of this kind, in such a work, is obvious, since none of the various particulars comprised under it could have been arranged under any less comprehensive head.

The descriptions of AMERICA and NORTH-AMERICA are almost wholly new. In place of the various vague, conjectural remarks of Robertson, Clavigero, and others, concerning the aborigines and their descent, have been substituted a few plain results, as better suited to the design of this work. For the first of these articles the travels of Hearne and M'Kenzie, furnished many valuable and interesting materials.

Russian America, a new article, has been compiled from Sauer's Expedition, and Coxe's Russian Discoveries. *Danish America* is

* In a multitude of instances these authorities are mentioned in the body of the work; but it was found inconvenient and even impracticable, in all cases, to make these references.

also new. The account of *Iceland* is from Van Troil; that of *Greenland* from Crantz and various missionary publications.

Of the *British Provinces* in North-America, the description of the first five is wholly altered. That of *New-Britain* has been compiled from Hearne, Cartwright, and others; that of *Lower and Upper Canada*, from the travels of Heriot, M'Kenzie, and Henry, and from the Quebec Almanac; that of *Newfoundland*, from the Encyclopedia and manuscript materials; and that of *Nova-Scotia*, from a very full account of that Province, politely furnished the author by his excellency Sir GEORGE PREVOST, governor general of British North-America. *Of New-Brunswick, Cape Breton*, and *St. John's*, very little new information could be obtained.

The general description of the *United States*, with the exception of its *constitution*, *botany*, and *zoology*, is chiefly new. The accounts of the individual states and territories have been mostly written anew, with a view to the exclusion of obsolete, and the introduction of new matter, and to shape the whole to the new arrangement of the work. To this part of the work particular attention has been paid, and a mass of information will here be found, not only new in a system of geography; but, as the author believes, new in fact, such as has never before been presented to the public. To enable him to make these improvements the attention of many gentlemen of education and extensive knowledge, in the several states and territories, at the request of the author, has been turned to the subject, and the reader is here presented with the results of their various communications, arranged and embodied in their proper departments. The author here takes leave publicly to repeat his grateful acknowledegments for the numerous favors of his generous correspondents.* The official documents of the federal government, obligingly forwarded by the Secretary of State, and other members of the government, and those of the several state governments, so far as they could be obtained, have been faithfully examined. And here the author cannot omit to express his regret that the returns of the Marshals to the Secretary of the Treasury, from several of the states, respecting manufactures, should have been made in so loose and unsystematic a form, that it was impossible to reduce them to any general results.

In the whole of the geography of the United States the author has never lost sight of one object, viz. to remove from the minds of *his own countrymen*, and as far as his work may have influence abroad, from the minds of *foreigners*, the false impressions respecting this country, which the reading of the travels of VOLNEY, WELD, ASH, and PARKINSON are calculated to leave on the minds of their

* The author feels it to be his duty particularly to name, as gentlemen to whom he is under special obligations, the following, viz. His excellency, governor PREVOST, of Canada; rev. Dr. Dwight, president of Yale college, and his son, SERENO E. DWIGHT, esq.; BENJAMIN RAYMOND, of the state of New-York; his excellency, gov. HULL, of Michigan territory; rev. JAMES BLYTHE, president of the university in Kentucky; MOSES FISK, esq. of Tennessee; ABRAHAM BRADLEY, esq. deputy post master general, Washington; Dr DAVID RAMSAY and judge DESSAUSURE, South-Carolina; capt. HUGH M'CALL, Georgia; and mon. B. LAFON, ingenieur geographe, New-Orleans, whose obliging communications, however, were received too late to be of use in the present edition.

readers. The first of these travellers appears to have been, in the main, honest; but is certainly often, if not chiefly, incorrect. The three last are viewed, by the most intelligent in this country, as influenced by sinister motives, and, in many instances, knowingly false. The first of the three, who was a young traveller, of respectable talents, and of amiable disposition, we are assured has ingenuously and publicly acknowledged his error, and will doubtless do what is proper to efface false impressions made by his work. The two last are so obviously under the influence of prejudice, and addicted to falsehood, that their slanders can have little effect on candid minds; and their works and names must shortly descend with disgrace into oblivion. On the minds of Europeans, inflated by a conceit of *continental superiority*, and capable of being influenced by the false statements and false reasonings of such travellers, and of such philosophers as BUFFON and DE PAUW, the author entertains little hope that his own, or the writings of any others, will make much impression on the side of candor, or of truth.

It has been objected, that the author of this work, in his account of his own country, has been too minute, and occupied too large a portion of his volumes. To remove this objection, in the present edition, he has omitted all *merely local matter*, in the account of its various divisions, and has compressed what he has thought it necessary to retain into the most compact and comprehensive form; which, indeed, has been his aim in every other part of the work. When it is considered, that the author's aim has been to furnish information to *Americans*, particularly to *American youths*, to whom the geography of their own country is especially interesting, he flatters himself that the objection above suggested will not be made to the present edition.

The account of *Louisiana* would have been more full, had not materials been wanting, which have since been received by the author from mon. B. LAFON and others. From the laws of the United States, however, he has been able correctly to define its two grand divisions; and from HUMBOLDT, PIKE, HUTCHINS, RAYNAL, and other sources, to settle its eastern and western limits, and to trace the progress of its settlements.

The article *Spanish America* is the result of very considerable research; and communicates much general information respecting that extensive region, which has not heretofore found its way into any geography. Of the *Floridas* little appears to be known, by any one; that little, however, will be found in its place. HUMBOLDT's interesting description of *Mexico* is the source from which the whole of that article has been derived. The introduction of a separate account of *Guatemala*, into geography, is justified by Humboldt. The author wishes he had the same authority for enlarging it.

Leaving the continent at the narrow isthmus, which connects its two great parts, only the more effectually to divide them, the author proceeded to describe those *groupes of islands*, called the *West-Indies*, which stretch from Florida to Guiana, along the eastern skirts of the gulf of Mexico and the Caribbean sea.

Of these islands no complete account has hitherto been given; even the groupes, which they form, appear to have been imperfect-

ly recognized in geography. The author believes that the arrangement he has followed, which was suggested in the neat and classical work of EDWARDS, is obviously pointed out by nature. From the same interesting author, from M'KINNEN's account of the Bahamas, and many other sources, he has been able to give a *general* geography of the whole *West-Indies*; an account of its various groupes of islands; and a minute description of each of the islands belonging to Great-Britain. That of *St. Domingo* is chiefly derived from REES's CYCLOPEDIA; and that of the Spanish islands, from oral information and former accounts.

Returning to the continent the author has to regret, that for his account of *New-Grenada* he has been obliged to depend chiefly on the old, though judicious, work of ULLOA. The view of *Venezuela*, by DEPONS, is modern, minute, and authentic. From the same writer, from the excellent work of BANCROFT, and the account of STEDMAN and BOLINGBROKE, he has derived his knowledge of *Guiana*. His account of *Peru* and *Amazonia* is from ULLOA, from the late work of SKINNER, and from his interesting extracts from the *Peruvian Mercury*, which it contains. That of *Brazil* would have been enlarged, but for the want of authentic documents. LINDLEY and sir GEORGE STAUNTON have been his chief authorities. MOLINA's interesting work on *Chili*, and WILCOCKE's on *Buenos Ayres* and *Patagonia*, have furnished the principal materials of his geography of those countries.

The *second* volume opens with THE EASTERN CONTINENT; an article now, for the first time, introduced into a geography; yet obviously proper, as there are on this, as well as on the western continent, various seas, bays, rivers, and chains of mountains, which belong exclusively to neither of the grand divisions of the globe.

For most of the very late statistical information respecting Europe, and for much relating to other parts of the eastern continent, the author is indebted to the excellent tables of HASSEL, printed at Gottingen, in 1809, and obligingly forwarded by his worthy friend professor EBELING. These tables contain the latest *official* information of the extent, divisions, population, revenue, debt, expenditure, army, and navy of every country in Europe. Where no late census is given, the author of the tables gives the last, and likewise his own estimate of the population; in 1808, usually founded on the ascertained proportion of births and deaths in the given country; due allowance, also, being made for any peculiar ravages of war. Of these tables the author has availed himself in his account of every country in Europe, and most of those, also, in Asia.

And here the author wishes to make one general acknowledgement of his obligations to Mr. PINKERTON in compiling the geography of Europe and Asia. In most of the states of *Europe* he has availed himself of the *botany*, *zoology*, and *mineralogy* of that learned geographer, abridging them from his abridgement. In several countries, also, he has adopted his *historical epochs*, *antiquities*, and various other articles. *Ireland* is almost wholly from PINKERTON. Copious extracts from him will, also, be found under the articles, *England*, *Scotland*, *Prussia*, *Austria*, and the general description of *Germany*, and to some extent under *Holland*, *Swit-*

zerland, *Sweden*, and *Denmark*. In all these, however, the reader will find all the modern information to be entirely new, and much, also, of that which is not modern. The articles *Lapland*, *Russia*, *Poland*, the *states of Germany*, *Netherlands*, *France*, *Spain*, *Portugal*, *Italy*, and *Turkey*, are wholly, or almost entirely new. For *Norway* the author has been indebted to COXE; for *Lapland* to LEEMS and ACERBI; for *Sweden* to ACERBI and COXE; for *Denmark* to COXE and REES; for *Russia* to TOOKE and COXE; for *Poland* to COXE; for the divisions, and other particulars of *Germany*, to HASSEL; for *France* to YOUNG and the official publications of the government; for *Spain* and *Portugal* to TOWNSEND, BOURGOANE, and a late excellent anonymous description of that country; for *Italy* to SPALLANZANI, HASSEL, and various other writers; and for *Turkey* to ETON, THORNTON, OLIVIER, and to the MS. journal of J. W. LANGDON.

The descriptions of the several countries in *Asia* are principally taken from PINKERTON's abridgement. The reader will, however, find many valuable additions and improvements in this part of the work, from late publications, particularly in *China*, from HASSEL, MARSHMAN, the abbe GROSIER, and sir GEORGE STAUNTON; in *Chinese Tartary*, from HASSEL. The *tributary dominions of China* are in great part new; *Bootan*, *Nepaul*, *Annan*, *Cochin China*, and *Tunquin* almost wholly so. The information of these remote, and till lately almost unknown regions, has been derived from HASSEL, KIRKPATRICK's account of the kingdom of *Nepaul*, the ASIATIC REGISTER, and BARROW. A few additions have been made from HASSEL to the *Birman empire*, *Siam*, and *Laos*; and more, from the same author, and from BUCHANNAN, to *Hindostan*; and a few to *Persia*, from the same authors. *Arabia* is in great part new, on the authority of REES. The *Asiatic isles* are improved from HASSEL, BUCHANNAN, and others; and a few additions have been made, from several late writers, to *Austral Asia* and *Polynesia*.

In respect to *Africa* the author flatters himself that his description of it will be found more minute, full, and modern, than any which has heretofore been published. JACKSON has furnished copious and interesting materials for *Morocco*; *Algiers* is chiefly derived from REES; from the MS. of an intelligent gentleman, long resident in *Tunis*, furnished by a friend of the author, has been compiled the description of that state. Of *Tripoli* no late information could be obtained. From DENON, WILSON, and REES has been compiled a new and enlarged description of *Egypt*. *Nubia* and *Abyssinia* are from BRUCE. The *eastern coast* is from the best authorities which the author could command. The geography of the *cape of Good Hope* has been admirably illustrated by BARROW, from whom the new account in this work is wholly derived. On the western coast, south of *Soudan*, no late information could be obtained. In *Soudan* and the countries north of it on the coast, and in the *interior of the desert*, the author's course has been directed by, and his information obtained from, the travels of PARKE, of BROWN, and of HORNEMAN, and from the interesting *reports of the Committee of the African Institution*, and the learned and acute researches of RENNEL, a man to whom modern geography is more

indebted than to any, perhaps, it will be hardly saying too much if we add, than to all other writers on the subject.

The ever changing state of the world has always rendered the duties of a faithful geographer arduous; but within the last twenty years the constant and rapid succession of revolutions in Europe, and the uncommon changes in other quarters of the globe, have immensely increased the labors of geographical writers, peculiarly in respect to the construction of maps. No plan to meet these changes to advantage has yet been devised; that adopted in this work appeared to be the best suited to this purpose of any which has yet appeared. The German geographers, who it must be admitted excel all others in this science, have lately attempted to construct a geography so as to render it independent of all political changes, by dividing the world into *natural portions*, bounded by great ridges of mountains, the sea, or large rivers. Professor STEIN, of Berlin, has successfully executed a short system of geography upon this plan. But although this method may answer well in respect to the mathematical, physical, economical, and topographical part of geography; yet men of business, politicians, and travellers require some statistical knowledge relative to the trade, population, productions, government, laws, military and naval force, and other matters, which could not be introduced upon this new plan. Professor EBELING, from whom the above information was received, suggests a division, in Europe particularly, according to the different *languages*; but this would be liable to similar difficulties.

From the foregoing recital the reader will perceive what alterations and improvements have been made in the present edition, and will be enabled to form some judgement of the labor they must have necessarily required. Although all the works mentioned have not been actually *read through*, yet they have all been faithfully examined; and the information contained in them respecting *each article* in the description of the several countries, has usually and necessarily been drawn from many scattered pages, and this often without the help of an index.

It will not be supposed that the author, amidst his professional duties, and his other numerous avocations, could have found leisure to accomplish the whole of this immense labor himself. For much of it he acknowledges himself indebted to his worthy friends, whom he would be happy to name were he permitted, and to his sons: he has, however, carefully examined the results of their labors, and can vouch for the judicious selection of authorities, and for the fidelity with which they have been examined.

The Atlas has been newly engraved and enriched by several new and valuable maps, particularly New-Granada, Caraccas, Peru, Chili, and La Plata, in South-America, and is believed to be the most complete collection of the kind, for the price, that has been published. Of the diligence and fidelity of the author, in executing the whole work, he is willing *that* public should judge, for whose information he has, during a course of twenty eight years, bestowed no small portion of his labors, and whose approbation and liberal patronage he has hitherto gratefully received.

Charlestown, May, 1812.

AMERICAN

UNIVERSAL GEOGRAPHY.

INTRODUCTION.

RISE AND PROGRESS OF GEOGRAPHY.

GEOGRAPHY is a term,* derived from the Greek language, and literally signifies a description of the earth. It is a branch of mixed mathematics, and treats of the nature, figure, and magnitude of the earth; the situation, extent, and appearance of different parts of its surface; its productions and inhabitants.

It may be useful and entertaining, to begin this introduction to geography by tracing the outline of its history, or surveying, in a cursory manner, the principal stages by which it has advanced to its present state of improvement. A person, by observing the whole process of erecting an edifice, from the laying of the foundation to the finishing stroke of the superstructure, has a more perfect knowledge of the work, the manner of executing it, and the requisite means, than he could obtain by any examination after its completion. In like manner, a brief view of the rise and progress of geography will facilitate the acquisition of an accurate knowledge of its present state; it will show us the connection that subsists between this science and astronomy, and the necessity of some acquaintance with the one in order to a full understanding of the other.

The time when attention was first paid to the pleasing and useful study of geography, is unknown. It seems to be the general opinion, that the Greeks, who were the first cultivators of this science in Europe, received it either from the Egyptians or Babylonians; but it cannot be determined to which of these two nations belongs the honor of having invented it. Herodotus informs us, that the Greeks first learned the pole, the gnomon, and the twelve divisions of the day, from the Babylonians.

Geography was very imperfect in its beginning, and has advanced slowly toward its present degree of perfection. The true figure of the earth was unknown to its first inhabitants, and the earliest opinion seems to have been that, which would most naturally result from the first information given by the senses. It was considered as a large circular plane; and the heavens, in which the

* Γεωγραφια, from γη the earth, and γραφω to describe.

sun, moon, and stars, appear daily to move from east to west, were supposed not to be elevated to a very great height above it, and to have been created solely for its use and ornament. It is not known who first rejected this erroneous hypothesis, and shewed that the figure of the earth is spherical; but it seems to have been done at a time of remote antiquity. For the accounts we have, relative to the proficiency made by the ancient Egyptians and Chaldeans in astronomy, particularly in the doctrine of eclipses, furnish sufficient evidence of their acquaintance with the sphericity of the earth.

It appears that the situation of places was first determined according to climates; and that geographers were then guided, in fixing on the climates, by the form and colour of certain animals, which were to be found in different countries. The appearance of Negroes, or what they called Ethiopians, and of the larger sized animals, as the rhinoceros and elephant, suggested to them the northern and southern limits of the torrid zone: for reason, said they, points out to us, that similar things appear in the same temperature of the elements; and that, whether they be plants or animals, they are produced according to the similar state of the air or climate under the same parallels, or in a situation that is similar, being equally distant from either pole. Such a gross manner of dividing the climates must be considered as one of the first rudiments of geography. A different and more scientific method was used by the Egyptians and Babylonians, who determined the situation of places, or their distance from the equator, by observing *the length of their longest and shortest days*. And these observations were made with a species of sun-dial, having a *stilus* or *gnomon*, erected perpendicularly upon a horizontal plane, by which the length of the shadow of the gnomon, in proportion to its height, might be measured.

It may be conjectured that travelling, soon after it began to be much practised in the world, gave rise to a kind of geography, which might furnish in some degree the requisite information relative to its way. Itineraries constituted this rudiment of geography. Some, who had performed journies, made a rough sketch or description of their routs, for the information of others who might afterward wish to travel in the same. The earliest specimen of this kind, of which we have an account, is that of Sesostris, an Egyptian king and conqueror, who, as Eustathius relates, "having traversed great part of the earth, recorded his march in maps, and gave copies of his maps not only to the Egyptians, but to the Scythians, to their great astonishment." And according to the account of Apollonius of Rhodes, he marked the direction of the roads, and the boundaries of the land and sea, upon columns erected at Œa in Colchis. Some have imagined that the Jews made a map of the Holy Land, when they gave the different portions to the nine tribes at Shiloh; for Joshua tells us, that they were sent to walk through the land, and that they *described it in seven parts in a book*; and by Josephus we are informed, that when Joshua sent out people from the different tribes to measure the land, he gave them as companions, persons well skilled in geometry. And the same histo-

rian afterwards says, that the men, who were sent, being ten in number, *having gone round and estimated the land*, returned to Joshua at Shiloh in the seventh month. From these accounts it seems probable, that a geometrical survey of the Holy Land was then made; but it cannot be fully determined, whether the mensuration was protracted and digested into a kind of map, or registered in numbers.

HOMER was first distinguished among the Greeks for his knowledge of the different nations of the earth, and the countries they inhabited. He has described so many places, and with such a degree of accuracy, that Strabo considered him as first among the geographers of ancient times.

A taste for the sciences led THALES, the father of Grecian philosophy, who flourished in the sixth century before Christ, and was the first of that people, who can be considered as an astronomer, into Egypt, where he lived with the priests, receiving their instruction, and giving them some in return; for it appears, that he showed them a method of measuring the height of the pyramids by the length of their shadows. On his return to Greece, he introduced some of the fundamental principles of geography and astronomy: Among other things he taught his countrymen that the earth is globular, and may be divided into five zones, by means of five parallel circles, viz. the equator, the two tropics, and the two polar circles; and that the equator is cut obliquely by the ecliptic, and perpendicularly by the meridian. Thus he made them acquainted with the principal circles of the sphere.* He also taught them, that the year consisted of 365 days, which he learned from the Egyptians.

ANAXIMANDER, a disciple of Thales, is supposed by some to have been the first, who made a geographical map, and attempted to delineate the surface of the earth, with the boundaries of land and water, on an artificial globe. It is not improbable that he was acquainted with the map of Sesostris, who had sent copies of it throughout the then known world: and therefore has rather, perhaps, the merit of improving and extending the invention, than that of originating it. He was the author of the first Grecian map on record, which is mentioned by Strabo. It is conjectured that Hipparchus refers to the map of Anaximander under the title of the *ancient map*, which he preferred in a few particulars to that of Eratosthenes; and that it was a general map of the world, as far as it was then known. The knowledge of the earth was indeed very limited at that time, as it scarcely extended beyond the temperate zone, and did not even comprise the whole of that. The extent of the representation of the world from east to west was twice as great as from south to north; hence the reason, why distances on the earth in the former direction were denominated *longitude*; and those in the latter, *latitude*. Maps were afterward multiplied.

Some idea of the maps of those times may be formed from what Herodotus relates of one, which Aristagoras, tyrant of Miletus, car-

* See Explanation of Terms.

ried with him, when he went to make application to Cleomenes, king of Sparta, to attack the king of Persia, even in his palace at Susa, and which he showed him, with a view of inducing him to engage in such an enterprise, for the purpose of restoring the Ionians to their ancient liberty. Herodotus observes, that Aristagorus carried with him, as the Lacedemonians say, a plate of brass, on which a description of the whole earth, with all the seas and rivers, was engraved. This account of the extent of the map is not to be taken in a literal sense, as it probably refers only to the whole of the intermediate countries to be traversed in the proposed march. And from the state of geography at that time, it seems rational to conclude, that by the *sea*, was meant no more than the Mediterranean; by the *earth* or *land*, the coasts of that sea, and more particularly the Lesser Asia, extending toward the middle of Persia; and by the *rivers*, the Halys, Euphrates, and Tigris, which Herodotus informs us must have been crossed in the projected expedition. It contained one straight line, called the *Royal Highway*, with the royal stations or places of encampment from Sardis to Susa. Of these the whole number was 111; and the distance, 13,500 stadia, or 1687½ Roman miles of 8 stadia, or 5000 feet each.

Herodotus tells us, that 150 stadia were allowed for a day's march; therefore 90 days would be requisite for performing the whole march at the rate of 18¾ Roman miles a day, if the extent of the English mile be to that of the Roman as 32 to 31; then 18¾ Roman miles are equal to about 18½ English miles.

Such itinerary maps of the places of encampment were of great importance to armies. Athenæus quotes Eæton as author of a work entitled *The Encampments of Alexander's March*; he also cites Amyntas on the encampments. That conqueror had in his service two surveyors, Diognetus and Baeton, who measured and kept an account of his marches. Pliny and Strabo have preserved these measures. Arrian has handed down to us the particulars of the navigation of Nearchus and Onesicritus, who sailed back with Alexander's fleet from the mouth of the Indus, to those of the Euphrates and Tigris. By reducing Tyre and Sidon, the Greeks informed themselves of all the places to which the Phenicians traded by sea; and we know that their commerce extended even to the British islands. The successors of Alexander in the east, by carrying their conquests to the mouths of the Ganges, obtained a general knowledge of many parts of India. Ptolemy Evergetes led his armies into Abyssinia; and from his marches and success in that distant country a general knowledge of it was obtained.

ERATOSTHENES was the first, who attempted to reduce geography to a regular system, and introduced a regular parallel of latitude. This was traced over certain places, where the longest day was of the same length. He began it at the straights of Gibralter; and it thence passed through the Sicilian sea, and near the southern extremities of Peloponnesus; whence it was continued through the island of Rhodes and the bay of Issus; and there it entered Cilicia, and having crossed the rivers Euphrates and Tigris, was ex-

tended to the mountains of India. By means of this line he endeavored to rectify the errors of the ancient map, supposed to be that of Anaximander. In drawing this parallel he was regulated by observing where the longest day was $14\frac{1}{2}$ hours, which was afterwards found by Hipparchus to be the latitude of 36 degrees.

The first parallel through Rhodes was ever afterwards considered with a degree of preference, as the foundation of all ancient maps: and many succeeding geographers attempted to measure the longitude of the then known world in stadia and miles, according to the extent of that line. Eratosthenes soon after attempted not only to draw other parallels of latitude, but also to trace a meridian at right angles to these, passing through Rhodes and Alexandria down to Syene and Meroe; and, as the progress he thus made naturally tended to enlarge his ideas, he at last attempted the much more difficult operation of determining the circumference of the globe, by an actual measurement of an arc of one of its great circles. He knew that the sun, at the summer solstice, was vertical to the inhabitants of Syene, a town on the confines of Ethiopia, under the tropic of Cancer, where they had a well sunk for the purpose of ascertaining the time of the solstice, which would be on the day when the rays of the sun fell perpendicularly on the bottom of the well. He observed by the shadow of a wire set perpendicularly in a hemispherical bason, how far the sun was distant from the zenith of Alexandria at the noon of the same day; and found that distance to be one fiftieth part of a great circle in the heavens. Then Syene and Alexandria being supposed to be under the same meridian, he concluded the distance between them to be the fiftieth part of a great circle upon the earth; and this distance being by measure 5000 stadia, he concluded the circumference of the earth to be 250,000 stadia; but, as this number divided by 360 would give $694\frac{4}{9}$ stadia to a degree, either Eratosthenes himself, or some of his followers, assigned the round number 700 stadia to a degree; which multiplied by 360, makes the circumference of the earth 252,000 stadia; whence both these measures are given by different authors as that of Eratosthenes.

The map of Eratosthenes appears to have contained little more than the states of Greece, and the dominions of the successors of Alexander, digested from the surveys that had been made. Strabo informs us that Alexander very carefully examined the measures of his surveyors himself, having always his descriptions from the most skilful persons in every country; and that a copy of their surveys was given by Xenocles, his treasurer, to Patrocles the geographer, who, according to Pliny, was admiral of the fleets of Seleucus and Antiochus. His geographical work is often quoted both by Strabo and Pliny, and he seems to have furnished Eratosthenes with the principal materials and authorities for the oriental part of his map of the then known world; for the voyages of Patrocles under Seleucus upon the Caspain sea and elsewhere were a kind of supplement to the surveys of Diognetus and Baeton, and the voyages of Nearchus and Onesicritus, the two admirals, who were employed under Alexander. Eratosthenes has

also quoted the voyages of Pytheas into the great Atlantic ocean, which gave him some faint idea of the western parts of Europe, but did not enable him to realize them in the outline of a map. Strabo says, that he was extremely ignorant of Spain, Gaul, Germany, and Britain, as well as of the Gæti and Bastarni; he was equally ignorant of Italy, the coasts of the Adriatic, Pontus, and all the countries toward the north.

TIMOCHARIS and ARISTILLUS, who flourished about 300 years before the christian era, seem to have been the first who attempted to fix the longitudes and latitudes of the fixed stars, by considering their situation with respect to the equator.* One of their observations gave rise to the discovery of the precession of the equinoxes, which was made by HIPPARCHUS about 150 years afterward; and he made use of their method in order to delineate the parallels of latitude and the meridians on the surface of the earth; thus laying the first solid foundation of the science of geography, as we have it at the present time, and uniting it more closely to astronomy.

Although latitudes and longitudes were thus introduced by Hipparchus, it does not appear that any subsequent writers on the subject attended to them before the time of Ptolemy. STRABO, VITRUVIUS, and PLINY, have each entered into a minute geographical description of the situation of places, according to the lengths and shadows of the gnomon, without taking any notice of the degrees and minutes of longitude and latitude. The introduction of longitude and latitude into geography laid a foundation for making maps or delineations of the surface of the earth in plano, on a plan essentially different from any that had been attempted before, and much better. For the maps, on record before the time of Hipparchus were little more than rude outlines and topographical sketches of different countries; except only that of Eratosthenes, the imperfections of which appear in some measure from the account already given.

It appears that war, though in most respects one of the greatest calamities that can befal people, has been generally the occasion of the most accurate maps of different countries, and on this account geography made considerable advances about this time, in consequence of the progress of the Roman arms. For as the Romans were the *conquerors*, so they became the *surveyors*, of the world. In all their provinces, we find camps were constructed every where at proper intervals, and that roads were raised with substantial materials to form an easy communication between the different places of encampment. Every new war produced a new survey and itinerary of the countries, which were the scenes of action; so that the materials of geography increased with their wars. At the beginning of *the second Punic war*, according to Polybius, when Hannibal was preparing for his expedition against

* The longitudes and latitudes of the stars were referred to the equator both by Timocharis and Hipparchus; and never uniformly to the ecliptic, till after the precession of the equinoxes was fully established by Ptolemy.

Rome, by crossing from Africa into Spain, and so through Gaul into Italy, the Romans measured or surveyed all these places with the greatest care. Julius Cæsar caused a general survey to be made of the whole Roman empire, by a decree of the senate. Three surveyors, who were said to have been very wise men and accomplished philosophers, were appointed to this business, and to each was assigned a different division of the empire. Zenodoxus completed his survey of the eastern part of the empire in 14 years, 5 months and 9 days; Theodotus finished the northern part in 20 years, 8 months and 10 days; and Polyclitus, the southern part in 25 years, 1 month and 10 days. This survey was begun in the year 44, and finished in the year 19, before Christ. The Roman itineraries, that are still extant, show the degree of care and attention with which their surveys in all the different provinces were made; and Pliny has filled the third, fourth, and fifth books of his Natural History, with the geographical distances that were thus measured. There is likewise still preserved an ancient set of maps, called the *Peutingerian Table** or *map*, published by Velseus and Bertius, which gives a sufficient specimen of what Vegetius calls the *Itinera Picta*, designed for the better direction of their armies in their marches.

Strabo and Ptolemy were the most eminent of the ancient geographers. Strabo relates very little more than he saw himself; he made a vast number of voyages to obtain the information that was necessary, in order to give the requisite certainty to his accounts, and is very short in what he relates from others. He was a philosopher as well as a geographer. Good sense, perspicuity, accuracy, and solidity of judgement, are visible in every part of his works. The geography of Ptolemy is more extensive; it takes in a greater part of the earth, while it seems to be equally circumstantial every where; but this extent renders it liable to more errors. He had the merit of carrying into full execution and practice the invention of Hipparchus for designating the situation of places on the earth by latitude and longitude, after it had lain dormant upward of 250 years; and thus he greatly advanced the state of the science.

The Roman empire had been enlarged to its greatest extent, and all its provinces well known and surveyed, when Ptolemy, about 150 years after Christ, composed his system of geography. The principal materials he made use of in composing this work were, *the proportions of the gnomon to its shadow*, taken by different astronomers at the times of the equinoxes and solstices; *calculations* founded upon the lengths of the longest days; the *measures* or computed distances of the principal roads contained in the

* This table or map was found by Conrad Celtes, and purchased by Conrad Peutinger, a burgomaster of Augsburg, from whom it derives its name. This ancient map was published and explained by Beatus Rheuanus and Marcus Velserus; it seems to have been first executed in the fourth century after Christ, and is a delineation of a journey through Europe and Asia, beginning at Hercules' Pillars, and ending at the ocean, which terminated the conquests of Alexander.

Roman surveys and itineraries; and the various *reports of travellers and navigators*, who often determined the distances of places by hearsay and conjecture. All these were compared together, and digested into one uniform body or system; and were afterward translated by him, as far as was necessary in adopting the plan of Hipparchus, into the new mathematical language of *degrees* and *minutes of longitude* and *latitude*.

The degree of accuracy in the latitudes and longitudes, given by Ptolemy, depended upon the veracity of the facts or suggestions communicated to him, from which they were afterward deduced. We must not therefore be surprised at the multitude of errors to be found there, when his original materials were so imperfect for executing so large a work, as the fixing of the longitudes and latitudes of all the places, coasts, bays, and rivers of the then known world. His principal mistakes took their rise from certain astronomical observations and surveys, which were supposed to have been made with accuracy in an age prior to himself; and as that great author received and adopted them as genuine, having none more authentic, by which their accuracy might have been tried, and having otherwise no reason to suspect them; so succeeding geographers, for want of better information, were induced to copy and insert them in their maps, as being, in their opinion, of acknowledged and undoubted authenticity. These errors did not merely creep into the most distant extremities of his maps, which generally contain places less visited and more uncertain with respect to situation, but they were in the very centre of that part of the world, which was best known to the ancient Greeks and Romans, and where all the famed ancient astronomers had made their observations. Yet this system, with all its imperfections, continued in vogue till the beginning of the 17th century; and the capital errors of Ptolemy's work kept their place in all maps, by a sort of unquestioned prescription, down even to that time.

Little was done in geography from the days of Ptolemy to the restoration of learning in Europe; for the Arabian geographers copied and retailed all his principal errors. They observed indeed, under their Caliph Almanon, in the beginning of the ninth century, a degree of latitude on the plains of Singar or Shinar near Babylon, and found it equal to $56\frac{2}{3}$ Arabian miles, each of which is 4000 cubits or 6000 feet; hence they determined the circumference of the earth.

The ancients were acquainted with but a small portion of the earth's surface. On the west the Atlantic ocean and British isles limited their knowledge. The Fortunate islands, now called the Canaries, were the remotest lands towards the south, that were known to them. Their notions with regard to the northern countries were very imperfect. Though Scandinavia was known, yet that and some other countries on the same continent were considered as large islands. It is not easy to determine what place the ancients understood by *Ultima Thule*; many take it for Iceland, but Procopius thinks it was a part of Scandinavia. Their know-

ledge of Sarmatia and Scythia was far from extending to the sea, which bounds Russia and Great Tartary on the north-east. Their discoveries went no farther than the Riphean mountains, which now divide Russia from Siberia. The western frontier of China seems to have bounded their knowledge on the east. Ptolemy indeed had a very imperfect notion of the southern parts of that extensive empire. How far the antients extended their discoveries with regard to Africa cannot be certainly known. Some are of opinion, that they were acquainted with the whole coast, having sailed round the southern extremity, now called the Cape of Good Hope, and extended their voyages from the Red Sea to the Mediterranean. Ptolemy, however, supposed that Africa was not surrounded by the sea, but extended in its breadth eastwardly till it joined to India.

In the fifteenth century the Portuguese, animated with the desire of finding a passage to the East-Indies, pushed their enquiries along the western coast of Africa, till they found the Cape of Good Hope, in 1486. In 1497, Vasquez de Gama doubled the Cape, and the next year made a voyage to India, and thus completed the discovery of that country by the east. The passage being thus opened, several European nations, desirous of sharing in the rich commerce of the east, sent their ships to the Indian Sea, where they discovered the Asiatic islands, and penetrated to the empire of Japan. The voyages of the Russians have completed our knowledge of the eastern parts of the continent of Asia.

The Portuguese had just crossed the equator, when CHRISTOPHER COLUMBUS, a native of Genoa, an intrepid and skilful navigator, conceived the idea of finding India by a western course. So great were the obstructions, that presented themselves, that he spent about twenty years in projecting and preparing for this enterprise. At length, in 1492, he crossed the Atlantic ocean; but, instead of the Indies he discovered the *new world*—AMERICA.

The improvements in geography at the time of the revival of learning in Europe, and since, have been very much owing to the great progress of astronomy. More correct methods and instruments for observing the latitude have been invented; and the discovery of Jupiter's satellites afforded a much easier method of finding the longitude, than was formerly known. Solar and lunar eclipses, transits of Mercury and Venus over the sun's disc, and occultations of the fixed stars by the moon, also furnish means for determining longitudes. And since the *lunar tables* were improved by Professor Mayer, and *time keepers* by Mr. Harrison and others, this important object has been obtainable by *measuring distances of the moon from the sun and from certain fixed stars, and by keeping time.* The voyages of different nations also, which became more frequent, brought to our knowledge a vast number of countries utterly unknown before. The late voyages of Capt. Cook and other navigators, together with the travels of Messrs. Bruce, Park, Mackenzie and others, contributed greatly to the improvement of geography during the 18th century; so that now the geography of the utmost extremities of the earth is in a fair way of

being much better known to the moderns, than that of the adjacent countries was to the antients. This science, however, is yet very far from perfection; and our best maps* ought to be considered only as unfinished works, which are to be altered and corrected by farther observations and discoveries.

ASTRONOMY,

AS CONNECTED WITH THE SCIENCE OF GEOGRAPHY.

Astronomy is the science, which treats of the heavenly bodies. By it we learn the figure and dimensions of the earth, and the relative situations of places upon its surface. Hence the propriety of giving a short account of this science in an Introduction to Geography.

EXPLANATION OF TERMS.

Angle. An angle is the space included between two lines, which meet each other.

Circle. A circle is a regular figure, bounded by a curve line, every part of which is equally distant from a point within it, called the *centre.* The *circumference* of a circle is the curve line, which bounds it. The *radius* of a circle is the distance from the centre to the circumference; and the *diameter* is equal to two radii, or the longest straight line, that can be drawn in a circle. The circumference of every circle is supposed to be divided into 360 equal parts, called *degrees;* each degree into 60 *minutes;* each minute into 60 *seconds.* An *arc* of a circle is the measure of an angle. Thus a right angle is an angle of 90 degrees. An *arc* of a circle is part of its circumference.

Sphere. A sphere is literally a ball, or globe. By the *celestial sphere* is meant, the apparently *concave* orb, which surrounds the earth, and in which the heavenly bodies appear to be situated at equal distances from the eye. In order to facilitate the knowledge of the places of these bodies in the sphere, several circles are supposed to be described on its surface, and are denominated *circles of the sphere.* The circles of the celestial sphere are supposed to have their centres coincident with the centre of the earth, and to mark correspondent circles on the earth's surface, where their planes cut

* The following facts will serve to give some idea of the want of accuracy in the *longitudes* of places. Dr. Bradley was of opinion, that there were but two places in England, on the longitude of which we could depend, as accurately determined; that these were the *Observatory at Greenwich* and *Sherburn Castle,* the seat of the Earl of Macclesfield in Oxfordshire; and that their difference of longitude was 4′ in time. But even this difference has been found to be inaccurate by a transit of Venus, being only 3′ 47″. In the account of longitudes prefixed to Dr. Halley's Tables, the Lizard is said to be 4° 45′ from the Observatory, which is therefore 4° 40′ from London; according to others, it is 5°, 5° 5′, 5° 14′, and even 6°.

it; so that the celestial and terrestrial spheres or globes are considered as concentric, and as having concentric circles on their surfaces.

Great circles. Great circles are those, whose planes pass through the centre of the sphere, and, of course, divide it into two equal parts. Of these there are four, the *Equator*, the *Ecliptic*, the *Meridian* and the *Horizon*.

Small circles. Those circles, whose planes divide the sphere unequally, are called *small circles*. Their planes do not pass through its centre. Of these there are four, also; the two *Tropics*, and the two *Polar Circles*.

Axis. The axis of the earth, or any heavenly body, is an imaginary line, around which it performs its diurnal rotation.

Poles. The Poles are the extremities of the axis.

Equator. The Equator is a great circle, whose plane divides the earth and the heavens into northern and southern hemispheres. The axis of the earth makes a right angle with its plane. It is often called the *Equinoctial;* because, when the sun is directly over it, the days and nights are of equal lengths in all parts of the world.

Meridian. The Meridian is a great circle, whose plane divides the earth and the heavens into eastern and western hemispheres. There is an indefinite number of meridians; for all places, that lie east or west of each other, have different meridians. They all pass through the poles of the earth, and cut the equator at right angles. The meridian of any place also passes through the *zenith* of that place, or the point directly over our heads; and through the *nadir*, or the point under our feet. The word meridian is derived from *meridies, mid-day;* because, when the sun is on the meridian of any place, it is noon at that place. Geographers usually assume the meridian, which passes through the metropolis of their own country, as the first meridian. But as great inconvenience and confusion result from this practice, the first meridian, throughout the following work, will be that of the Royal Observatory at Greenwich.

Ecliptic. The Ecliptic is a great circle, whose plane makes an angle of 23 28 with the plane of the equator. Considered as a circle in the heavens, its circumference is the path, which the earth describes annually in its revolution round the sun. The points, in which the ecliptic intersects the equator, are called the *equinoctial points;* because, when the sun is in either of those points, it shines on both poles, and the day is then equal to the night throughout the earth. The meridian, which passes through these points, is called the *equinoctial colure.* The two points in the ecliptic, which are 90 degrees distant from these, are called the *solstitial points;* because, when the sun is in either of them, it is summer in the nearest hemisphere. The meridian passing through these points is called the *solstitial colure*, and is the only meridian which cuts the ecliptic at right angles. The sun passes through the equinoctial points on the 20th of March, and the 23d of September. The former is called the *vernal;* the latter the *autumnal* equinox. The sun is in the solstitial points on the 21st of June, and the 21st of December. The former is called the *summer;* the latter the *winter* solstice.

The ecliptic is divided into 12 equal parts of 30 degrees each, called *signs*. These begin at the vernal intersection of the ecliptic with the equator, and are numbered from west to east. The names and characters of the signs, with the months in which the sun enters them, are as follows:

	Latin names.	English names.	Characters.	Months.
1	Aries	The Ram	♈	March
2	Taurus	The Bull	♉	April
3	Gemini	The Twins	♊	May
4	Cancer	The Crab	♋	June
5	Leo	The Lion	♌	July
6	Virgo	The Virgin	♍	August
7	Libra	The Scales	♎	September
8	Scorpio	The Scorpion	♏	October
9	Sagittarius	The Archer	♐	November
10	Capricornus	The Goat	♑	December
11	Aquarius	The Water Bearer	♒	January
12	Pisces.	The Fishes	♓	February

The first six are called *northern* signs; and the last six, *southern*.

Zodiac. The Zodiac is a broad belt in the heavens, 16 degrees wide; in the middle of which is the ecliptic. It comprehends the orbits of all the planets.

Horizon. There are two kinds of horizons; the *sensible*, and the *rational*. The sensible is the small circle, which limits our prospect; where the sky and the land or water appear to meet. There are as many of these as there are places. The rational horizon is a great circle, whose plane divides the earth into upper and lower hemispheres. Each place, has its own rational horizon, so that there are as many rational horizons, as there are spots on the earth's surface. The rational horizon of every place is that great circle of the earth, whose circumference is every where 90 degrees distant from the place. The poles of the celestial horizon are the *zenith* and the *nadir*.

Declination. The declination of a heavenly body is its distance north or south of the equator, measured on a meridian.

Tropics. The Tropics are two small circles, drawn parallel to the equator, at the distance of 23 28 on each side of it. The northern is called the *tropic of Cancer;* the southern, the *tropic of Capricorn.* The sun never passes these circles; but, when it has arrived at either, it turns, and goes toward the other. They, of course, bound those places where the sun is vertical.

Polar Circles. The Polar circles are two small circles, parallel to the tropics, and are described round the poles at the distance of 23 28 from them. The northern is called the *arctic circle;* and the southern, the *antarctic circle.* The following considerations will explain the reason of their being drawn. The sun, at any one moment, illuminates half of the earth. If the sun were always on the equator, it would just illuminate the two poles, and the two poles would enjoy uninterrupted day. If it were always at the tropic of

Cancer, it would shine 23 28 over the north pole, and all the places included within the arctic circle would constantly be illuminated. Of course, whenever the sun is in either tropic those who live directly under the nearest polar circle see it for that day without its setting. These circles therefore bound those places where the sun sets daily.

A *direct* or *right sphere* is when both the poles are in the horizon, and the equinoctial passes through the zenith; so that the equator and all its parallels, such as the tropics and polar circles, make right angles with the horizon, and are divided by it into two equal parts. Hence, that the sun, moon and stars ascend directly above, and descend directly below the horizon. This position is peculiar to those places, which are under the equator.

An *oblique sphere* is that, where all the diurnal motions are oblique to the horizon. This is common to all parts of the earth, except those under the poles and the equator. In an oblique sphere, one of the poles is elevated above, and the other depressed below, the horizon.

A *parallel sphere* is when one pole being in the zenith and the other in the nadir, the equator and all its parallels are parallel to the horizon. This position is peculiar to those parts which lie directly under the poles.

Zones. The surface of the earth is supposed to be divided into five unequal parts, called zones, each of which is terminated by two parallels of latitude. Of these five zones, one is called the torrid or burning zone; two are styled frigid or frozen; and two temperate; names adapted to the degree of heat and cold, to which their situations are liable.

The *torrid zone* is that portion of the earth, over every part of which the sun is perpendicular at some time of the year. The breadth of this zone is nearly 47 degrees; extending from 23 degrees and 28 minutes north, to 23 degrees and 28 minutes south latitude. The equator passes through the middle of this zone, which is terminated on the north by the parallel of latitude, called the tropic of Cancer, and on the south by the parallel called the tropic of Capricorn. The antients considered this zone as uninhabitable, on account of the heat, which they thought too great to be supported by any human being, or even by the vegetable creation; but experience has long since refuted this notion.

Many parts of the torrid zone are remarkably populous; and it has been found that the long nights, great dews, regular rains, and breezes, which prevail in almost every part of the torrid zone, render the earth not only inhabitable, but also so fruitful, that two harvests a year are very common. All sorts of spices and drugs are almost solely produced there; and it furnishes more perfect metals, precious stones, and pearls, than all the rest of the earth.

This zone comprehends the East and West-Indies, Philippine Islands, the greater part of South-America and Africa, and almost all Capt. Cook's discoveries, including the northern parts of New-Holland.

The *frigid zones* are those regions round the poles, where the sun does not rise for some days in the winter, nor set for some days in the summer. The two poles are the centres of these zones, which extend from these points to 23 degrees and 28 minutes; that is they are bounded by the northern and southern parallels of latitude of 66 degrees and 32 minutes. That part that lies in the northern hemisphere is called the *north* frigid zone, and is bounded by a parallel, called the arctic, or north polar circle; and that in the southern hemisphere, the *south* frigid zone, and the parallel of latitude which bounds it is called the antarctic, or south polar circle.

The northern frigid zone comprehends Nova-Zembla, Lapland, part of Norway, Baffin's Bay, part of Greenland, and part of Siberia. The southern frigid zone has no land known to us.

The two *temperate zones* are the spaces contained between the tropics and polar circles.

The northern temperate zone contains almost all Europe, the greater part of Asia, part of Africa, the United States of America, and the British Colonies. The southern temperate zone comprises the south part of New-Holland, (including Botany Bay) Cape of Good Hope, and Cape Horn.

In the frigid zones the longest day is never less than 24 hours; in the temperate zones it is not quite so much, and in the torrid never more than $13\frac{1}{2}$ hours.

Climates. The word *climate* has two significations, one *geographical* and the other *astronomical.* In common language, the word is used to denote the difference in the seasons and the temperature of the air. When two places differ in these respects, they are said to be in different climates.

In an *astronomical* sense, a climate is a tract of the earth's surface, included between the equator and a parallel of latitude, or between two parallels, of such a breadth, that the length of the day in one is half an hour longer than in the other. Within the polar circles, however, the breadth of a climate is such, that the length of the longest day, or the longest time of the sun's continuance above the horizon without setting, is a month longer in one parallel, as you proceed toward the elevated pole, than in the other.

Under the equator the day is always 12 hours long. The longest days gradually increase in length, as you advance either northward or southward from the equator. The space between the equator and a parallel, at the distance of 8 25, where the longest days are twelve hours and a half long, is called the first climate; and by conceiving parallels drawn in this manner, at the increase of every half hour, it will be found that there are 24 climates between the equator and each of the polar circles; and 48 in the whole.

Under the polar circles, the longest day is 24 hours; and on that day the sun, when lowest, skims the horizon without setting. As you advance from the polar circles to the poles, the sun continues above the horizon for days, weeks, and months, in a constant increase, until you arrive at the poles, where the sun is six months

above the horizon; and the whole year may be said to consist of but one day and one night.

There are 30 climates between the equator and either pole. In the first 24, between the equator and either polar circle, the period of increase for every climate is half an hour. In the other six, between either polar circle and its pole, the period of increase for each climate is a month. These climates continually decrease in breadth as you proceed from the equator, as may be seen by attending to the following Table:

TABLE.

Climates.	Longest day where the climate ends.	Latitudes in which the respective climates end. d.	m.	*Names of Countries and remarkable places, situated in the respective climates, north of the Equator.*
				Within the first climate lie,
1	12 1-2	8	25	1 The Gold coast in Africa, Malacca in the E. I. Cayenne in S. America.
2	13	16	25	2 Abyssinia, Siam, Madras, Darien, Barbadoes, Tobago, &c.
3	13 1-2	23	50	3 Mecca, Bombay, Bengal, Canton, Mexico, Jamaica, Guadaloupe.
4	14	30	25	4 Egypt, Delhi, Canary isles, Florida, Havanna.
5	14 1-2	36	28	5 Gibraltar, Jerusalem, Ispahan, Nankin, Georgia, and the Carolinas.
6	15	41	22	6 Lisbon, Madrid, Asia Minor, Virginia, Maryland, Philadelphia.
7	15 1-2	45	29	7 Rome, Genoa, Constantinople, Caspian Sea, New-York, New-England.
8	16	49	01	8 Paris, Vienna, Nova-Scotia, Newfoundland, Canada.
9	16 1-2	52	00	9 London, Flanders, Prague, Dresden, Cracow, Tartary.
10	17	54	27	10 Dublin, Warsaw, Holland, Hanover, Labrador, New-South Wales.
11	17 1-2	56	37	11 Edinburgh, Copenhagen, Moscow, capital of Russia.
12	18	58	29	12 South part of Sweden, Tobolski, capital of Siberia.
13	18 1-2	59	58	13 Orkney isles, Stockholm, capital of Sweden.
14	19	61	18	14 Bergen in Norway, Petersburgh in Russia.
15	19 1-2	62	25	15 Hudson's Straits, North America.
16	20	63	22	16 South part of West-Greenland, Siberia.
17	20 1-2	64	06	17 Drontheim in Norway.
18	21	64	49	18 Part of Finland in Russia.
19	21 1-2	65	21	19 Archangel on the White Sea, Russia.
20	22	65	47	20 Hecla in Iceland.
21	22 1-2	66	06	21 Northern parts of Russia and Siberia.
22	23	66	20	22 New North-Wales in North-America.
23	3 1-2	66	28	23 Davis' Straits in ditto.
24	24	66	31	24 Samoieda.
25	1 month	67	21	25 South part of Lapland.
26	2 do.	69	48	26 West-Greenland.
27	3 do.	73	37	27 Zembla Australis.
28	4 do.	78	30	28 Zembla Borealis.
29	5 do.	84	05	29 Spitzbergen, or East-Greenland.
30	6 do.	90	00	30 Unknown.

Latitude. The *latitude* of a place is its distance from the equator, reckoned in degrees, &c. north or south, on the meridian. The greatest latitude is that of the poles, which are 90 degrees distant from the equator. If the place be situated between the equator and the north pole, it is said to be in north latitude; if it lie between the equator and the south pole, it is in south latitude.

The elevation of the pole above the horizon is always equal to the latitude of the place; for to a person situated at the equator, both poles will rest in the horizon. If you travel one, two, or more degrees north, the north pole will rise one, two, or more degrees, and will keep pace with your distance from the equator.

Longitude. Every place on the surface of the earth has its meridian. The *longitude* of a place is the distance of its meridian from some other fixed meridian, measured on the equator. Longitude is either east or west. All places east of the fixed or first meridian are in east longitude; all west, in west longitude.

Opposition. A body is in *opposition* with the sun, when the earth is directly between it and the sun.

Conjunction. A body is in *conjunction* with the sun, when they are both in a straight line with the earth, and on the same side of it. If the body is between the earth and the sun, it is said to be in its *inferior* conjunction; but when the sun is between it and the earth, the body is said to be in its *superior* conjunction.

Quadrature. A body is in quadrature, when a line, drawn from the centre of the body to the centre of the earth, makes a right angle with a line, drawn from the centre of the earth to the centre of the sun.

Elongation. The greatest elongation of a heavenly body is its greatest apparent distance from the sun.

Eccentricity. The eccentricity of the orbit of a planet, is the distance from the sun to the centre of the orbit; the sun not being in the centre, but in one of the foci.

Aphelion. A planet is in its aphelion, when it is farthest from the sun.

Perihelion. The perihelion is that point in the orbit of a planet, which is nearest to the sun.

A *Digit* is a twelfth part of the diameter of the sun or moon.

Planets are bodies, which revolve about the sun in orbits nearly circular, whose planes make a very small angle with the plane of the ecliptic; and with a motion according to the order of the signs of the ecliptic, or from west to east.

Satellites, or *moons*, are bodies revolving round the planets, which are called their *primaries*; and, in company with them, round the sun.

Asteroids are very small bodies, revolving round the sun, in orbits making larger angles with the plane of the ecliptic, and with motions either *direct*, i. e. from west to east; or *retrograde*, i. e. from east to west.

Comets are bodies revolving about the sun in extremely elliptical orbits; whose planes may make any angle with the ecliptic, and whose motions are either direct or retrograde.

THE SOLAR SYSTEM.

The system of heavenly bodies, to which the earth belongs, is composed of *the Sun*, *the Planets*, *the Satellites*, *the Asteroids*, and *the Comets*.

The sun, the most glorious of the heavenly luminaries, is the source of light, and heat, and motion, to all the bodies which revolve around it.

The number of Planets is seven; the names of which, according to their nearness to the sun, are *Mercury*, *Venus*, the *Earth*, *Mars*, *Jupiter*, *Saturn*, *Herschel*. The two first are called *inferior* planets; the four last, *superior*.

The number of Satellites is eighteen. The earth has one; Jupiter four; Saturn seven; Herschel six. These roll round their respective primaries, and accompany them in their annual revolutions round the sun.

The number of Asteroids at present known is four. Their orbits lie between those of Mars and Jupiter. Their names, according to their nearness to the sun, are *Ceres*, *Pallas*, *Juno*, and *Vesta*.

The number of Comets belonging to our system is not yet ascertained.

Astronomers have, at different periods, supposed the principal bodies, which compose the solar system, arranged in different orders. Such a supposed arrangement is called *a system of the world*. The most distinguished of these systems are the *Ptolemaic*, the *Tychonic*, and the *Copernican*.

The PTOLEMAIC SYSTEM is so called from Claudius Ptolemy, a celebrated astronomer of Peiusium in Egypt; not because he was the author of it, but because he adopted and endeavoured to support it in his astronomical work, called the *Almagest*, which is the only important book of ancient astronomy, that has come into our possession. According to this hypothesis, the earth is immoveably fixed in the centre of the universe, and all the other bodies revolve round it from east to west in the space of twenty-four hours, at distances, which increase in the order, in which they are here named, viz. the Moon, Mercury, Venus, the Sun, Mars, Jupiter, Saturn, and the fixed stars. The sun and planets were supposed to be firmly set in separate crystalline spheres, inclosed by a concave one, containing the fixed stars, which would of course be all equally distant from the earth. Above this starry sphere were imagined to be the two crystalline spheres, the *primum mobile*, communicating motion to all the interior spheres; and, finally, the *empyrean heaven*, or *heaven of heavens*, to which a cubic form was attributed. Beside the above motion, performed in the course of twenty-four hours, the sun and planets were supposed to revolve about the earth in certain stated or periodical times, agreeably to their annual appearances.

This system owed its origin to a partial view of the appearances in the celestial motions. The motions observed were taken to be real. Not suspecting any motion of the earth, which of all things appeared to be most immoveably fixed, and unacquainted with the

doctrine of motion in general, philosophers were unable to correct the deceptions of sense, to distinguish apparent from real motion, and in the latter to trace the cause of the former. The phenomena to be explained by this system are inconsistent with it, and show its absurdity in a very satisfactory manner. Even in the infancy of astronomy, those, who endeavoured to explain the celestial motions on this hypothesis, were exceedingly embarrassed; as the science advanced, difficulties increased, and every new discovery reduced them to the necessity of adopting a new absurdity. And, though ignorance, bigotry and zeal laboured to support it, observation and reason long ago triumphed in its explosion and universal rejection by the learned.

The TYCHONIC or BRAHEAN SYSTEM was invented by Tycho Brahe, a nobleman of Denmark, and one of the most eminent astronomers of his time. Unwilling to admit any motion of the earth, particularly on account of some objections conceived to arise from certain passages of *Scripture*; and struck with the palpable absurdity of some parts of the Ptolemaic system, he endeavoured to establish a new one, more agreeable to his faith and astronomy. With Ptolemy he supposed the earth to be at rest in the centre of the universe, and the moon, the sun, planets and fixed stars, to revolve about it in twenty-four hours. He also supposed that these bodies had an annual motion around the earth; that the moon's orbit was nearest to the earth; then the sun's; and that Mercury, Venus, Mars, Jupiter and Saturn, revolved about the sun as their centre, and accompanied it as their primary in its annual revolution round the earth. As he denied the earth's diurnal rotation on its axis, he was obliged to admit one of the most gross absurdities of the Ptolemaic hypothesis, that is, the revolution of the whole universe, to its farthest visible limits, about the earth's axis in the space of a day, produced by the primum mobile. Some of his followers, however, varied from his system so far as to ascribe this apparent diurnal motion of the heavens to a real rotation of the earth on its axis, and were therefore called *Semi-Tychonics*. But the annual motion is as evident as the diurnal, and both are now universally admitted by astronomers.

The COPERNICAN SYSTEM is so called from Copernicus, a native of Thorn in Royal Prusia, and is the TRUE SOLAR SYSTEM. It had been taught by some of the Pythagorean philosophers, but was nearly lost, when Copernicus undertook to restore it, and published new and demonstrative arguments in its favour. It supposes the sun to be in the centre of the system, and all the planets to move round the sun in the order already mentioned. These, together with the asteroids and the comets, form the constituent parts of the Solar System.

This supposition readily solves all the appearances observable in the motion of the planets, and also agrees with the strictest philosophical and mathematical reasoning.

All the planets are opaque and spherical bodies, and receive their light from the sun. Their orbits are not circular, but elliptical, or oval, and have one common focus, which is occupied by the sun.

Hence, in their revolutions, they are sometimes nearer to, and sometimes farther from, that luminary. The influence of the sun is the cause of the motions of the planets; and this influence increases as their distance from the sun decreases. Hence also we see the reason why the planets move faster, as they approach nearer to the sun, and slower as they recede from it.

If a right line, called by some the *vector radius*, be drawn from the sun through any planet, and supposed to revolve round the sun with the planet, this line will describe, or pass over, every part of the plane of the orbit; so that the vector radius may be said to describe the area of the orbit.

In the solar system are observed two principal laws, which regulate the motions of the planets. These laws are the following:

1. "The planets describe equal areas in equal times." That is, the vector radius, in equal portions of time, describes equal areas or portions of the space, contained within the planet's orbit.

2. "The squares of the periodical times of the planets are as the cubes of their mean distances from the sun." That is, as the square of the time, which any planet takes to describe its orbit, is to the square of the time, taken by any other planet to describe its orbit: so is the cube of the mean distance of the former from the sun, to the cube of the mean distance of the latter from the sun.

These laws, together with the facts that the orbits of the planets are elliptical, and that they have the sun in a common focus, were discovered by Kepler, a distinguished astronomer, who flourished about the beginning of the seventeenth century, and who deduced them from a multitude of observations; but the first, who shewed the reason of these laws, was the great Sir Isaac Newton.

By the second law the relative distances of the planets from the sun are known; and were the real distance of any one of them determined, the real distances of all the others would be obtained. By the transits of Venus over the sun in 1761 and 1769, we now know the real distances of the planets from the sun much better than before: these, together with other necessary particulars for forming a competent idea of the solar system, are exhibited in Table 1. p. 45.

The limits to which we are confined will not admit of our multiplying proofs to establish the Copernican system; only the following, therefore will be added; but these, if there were no other, would be abundantly sufficient for the purpose.

1. The planets Mercury and Venus are always observed to have two conjunctions with the sun, but no opposition. This could not happen, unless their orbits were circumscribed by that of the earth.

2. Mars, Jupiter, and Saturn have each their conjunctions and oppositions with respect to the sun, alternately and successively, which they could not have, unless their orbits were exterior to that of the earth.

3. The greatest elongation or distance of Mercury from the sun is about 28 20, and that of Venus 47 48; which answers exactly to

their distance in the Copernican system; but according to the Ptolemaic, they must often be seen in opposition to the sun, or at the distance of 180 degrees.

4. In this disposition of the planets, all of them will be sometimes much nearer to the earth than at others; the consequence of which is, that their brightness and splendor, as well as their apparent diameters, will be proportionally greater at one time than at another; and this we observe to be true every day. Thus the apparent diameter of Venus, when greatest, is near one minute; when least, not more than ten seconds; that of Mars, when greatest, is twenty-two seconds; when least, only four. But if the Ptolemaic hypothesis be true, they must always be equal.

5. All the planets sometimes appear in direct motion; sometimes stationary, and sometimes retrograde. These appearances must happen according to the Copernican system, but are absolutely repugnant to any other.

6. The bodies of Mercury and Venus, in their superior conjunction with the sun, pass behind the body of that luminary, and in the inferior conjunction are seen to transit, or pass over, its disc, in the form of a round black spot. These phenomena are necessary in the Copernican system, but there could be no superior conjunction in that of Ptolemy.

7. The times in which these conjunctions, oppositions, stations, and retrogradations of the planets happen, are not such as they would be, were the earth at rest in the centre; but precisely such as would happen, if the earth and all the planets move about the sun, in the order and with the velocities assigned them in the Copernican system. Consequently this must be the true system of the world.

The Sun. The Sun is the centre of the system, and is immensely larger than all the other bodies which compose it. Its diameter is 883,246 miles, and its density (that of the earth being 1) is nearly $\frac{1}{4}$. It weighs 333,928 times as much as the earth, and is 1,380,000 times as large. It appears from calculation, that a body weighing 1 pound on the earth, would weigh 2·77 pounds on the sun. It revolves, on its axis, in 25 days, 14 hours, 8 minutes; and in its orbit, in the same time, around the common centre of gravity of the system. Its revolution in its orbit, as is that of all the planets, is from west to east. The plane of its orbit is not coincident with that of any of the planets; but is nearest to coincidence with the orbit of Venus. The axis of the sun makes an angle of about 82$\frac{1}{2}$ degrees with the plane of the earth's orbit. The sun, though to the naked eye it appears so extremely bright; yet, with a telescope of but very small powers, is discovered to have dark spots on its surface. These were first observed by Galileo, in 1611. They are very uncertain in their number. Sometimes none are visible: frequently, however, 20, 30, and 40 are seen at one time. In 1625, Scheiner, a German astronomer, counted 50 at a single observation. These spots are also very various in their magnitudes. Some are barely perceptible. Others have been seen so large, as to be capable of covering the continents of Asia and Africa. That

which appeared in 1779, was more than 31,000 miles in diameter, and was visible to the naked eye. They, of course, are not permanent, nor regular, in their number, shape, magnitude, nor duration. They are called by astronomers, *maculæ*; and, when they disappear, the places which they occupy generally become brighter than the rest of the sun, and are called *faculæ*. By means of these spots, the revolution of the sun on its axis was discovered. Every spot, if it continues long enough without being dissolved, appears to enter the sun's disc on the east side, to go from thence with a velocity continually increasing, till it has gone half its way; and then to move slower and slower, till it goes off at the west side: after which, it disappears about the same space of time which it appeared, and then enters upon the east side again, and pursues generally the same course. It follows from these facts, that the spots are attached to the surface of the sun; that the sun has a revolution on its axis; and that the time which elapses between the first appearance of a spot on the sun's eastern disc, and its re-appearance there, is the period of such a revolution. The path of the sun, in his revolution round the centre of gravity of the solar system, is very irregular; but his distance from this centre is never greater than the sun's diameter. It is not ascertained whether the sun has an atmosphere. There is, however, an appearance in the heavens, termed the *semita luminosa*, or *zodiacal light*, which is now generally supposed to be owing to the atmosphere of the sun. This was discovered by Cassini, in 1683. In northern latitudes, it is most conspicuous after the evening twilight, about the latter end of February; and before the morning twilight, in the beginning of October. It is very extensive, and reaches beyond the orbit of Venus, but not so far as that of the earth.

Mercury. Mercury is the smallest of the planets. It is 3224 miles in diameter, and 36,583,825 miles from the sun. Its bulk is to that of the earth, nearly as 1 to 15; and its weight, as 0·165 to 1. A body weighing 1 pound on the earth, would weigh 1·03 pounds on Mercury. It is not known whether it revolves on its axis; yet, as all the other planets do, it is naturally concluded that this does also. It revolves round the sun in 87 days, 23 hours; or little less than 3 months. It emits a very bright, white light. Mercury can be seen only a few days at a time. It is visible in the evening about the eastern elongation. It then disappears about 6 or 7 weeks, after which time it may be seen in the morning, rising before the sun. In about 10 weeks, it re-appears in the west, setting after the sun. It has no moon, nor any spots on its surface. Its hourly motion in its orbit is 111,000 miles. The heat near the poles of Mercury is not probably greater than that of the torrid zone. Near its equator, water would continually boil, and most inflammable substances would be parched up, destroyed, or converted into vapor.

Venus. This is the most beautiful of the celestial luminaries, and the only star that is ever visible in the day time. This happens once in about 8 years; when the planet is at its greatest north latitude, and near its farthest distance from the sun. Venus is 7687

miles in diameter, and its mean distance from the sun is 68,368,000 miles. Its bulk, compared with that of the earth, is nearly as 8 to 9 ; and its weight, as 0·89 to 1. A body weighing 1 pound on the earth would weigh 0·98 pounds in Venus. Its diurnal rotation on its axis is performed in 23 hours, 22 minutes, and it moves in its orbit 81,000 miles an hour. When Venus appears to the west of the sun, it rises before him in the morning, and is called the morning star ; and when it appears to the east of the sun, it shines in the evening, after the sun sets, and is called the evening star ; being in each situation, alternately, about 290 days. The axis of Venus is inclined 75 degrees towards the plane of its orbit. Hence the tropics of Venus are only 15 degrees from its poles, and its polar circles are only 15 degrees from its equator. Spots were first seen on the disc of Venus, in 1665, by Mr. Burratini, of Poland. They are, however, small, and usually of short duration. It is not determined whether Venus has an atmosphere. Some astronomers have supposed that Venus had a satellite, and have gone so far as to calculate its size, its distance from the primary, and the period of its revolution. By others, its existence is denied. It may safely be observed, that there is but little evidence that it does exist.

Mercury and Venus are inferior planets. Their orbits are within that of the earth. Mercury never appears more than 28 20 from the sun, nor Venus more than 47 48. Of course, they and the sun are never in opposition, i. e. on opposite sides of the earth. They have both, however, an *inferior* conjunction, when they pass between the earth and the sun ; and a *superior* conjunction, when they pass behind the sun. In their inferior conjunctions, they sometimes pass directly over the sun's disc. This passage is called a *transit*. In their transits, they appear like small, round, black spots, moving rapidly over the face of the sun. This appearance proves them to be opaque bodies. The transits of Venus are not so frequent as those of Mercury. The last transit of Venus was in 1769 ; the next will be in 1874. The last of Mercury was in 1802 ; the two next will be in 1815, and 1822. Both of these planets, as seen by the telescope, undergo nearly the same changes in their appearance, as the moon. They are sometimes invisible, at others horned, at others gibbous, and at others nearly full. They never appear quite round, because they are never in opposition. These changes also prove them to be opaque. The greatest heat on the planet Venus probably exceeds the heat of the torrid zone about as much as that exceeds the average heat of 60 degrees north latitude.

The Earth. The Earth is a spherical body. Its figure is very nearly that of a perfect sphere, or globe, notwithstanding the little inequalities of its surface ; as the largest mountains bear no greater proportion to the bulk of the earth, than the smallest grain of sand bears to a common globe. The sphericity of the earth is obvious from the following considerations : First, Such a figure is best adapted to motion. Secondly, When you stand upon the shore of the ocean, the spherical form of its surface is manifest to the eye.

Thirdly, From analogy; as all the other planets and heavenly bodies are spherical. Fourthly, The higher the eye is placed, the more extensive is the prospect; but on a plane absolutely horizontal, objects at a given distance would be visible, whether the eye were high or low; nor would any of them vanish, till the angle, under which they must appear, became too small to be perceptible. Fifthly, To people on shore, the mast of a ship appears before the hull; but, were the earth a plane, the hull would appear long before the mast, by reason of the much greater angle which it subtends. Sixthly, To people at sea, the land disappears, though near enough to be visible, were it not for the convexity of the water. Seventhly, The earth has been sailed round by Magellan, Drake, Dampier, Anson, Cook, and since by many others. This could not have happened, if the earth had not been of a globular figure. Eighthly, The boundary of the earth's shadow upon the moon, in a lunar eclipse, is always circular; and nothing but a spherical body can, in all situations, produce a circular shadow. The unevenesses of the earth's surface have no effect upon its shadow on the moon; for the height of Chimborazo, the highest mountain on the globe, is less than the 2000th part of the earth's diameter. Still, the earth is not a perfect sphere, but an *oblate spheroid*; that is, its equatorial diameter is longer than its axis. The difference of these diameters is about 34 miles. The mean diameter of the earth, or the diameter in latitude 45 degrees, is 7928 miles. Of course, the equatorial diameter is 7945 miles, and the length of the earth's axis is 7911. The equatorial circumference of the earth is about 24,970 miles; its mean circumference, in latitude 45 degrees, is 24,917; and its meridional circumference, 24,863. The number of square miles on the earth's surface is 197,459,101; and 260,909,292,265 is the number of cubic miles contained in the earth. It performs a rotation on its axis once in 24 hours. This is proved by the following circumstances. First, By analogy. The sun and all the planets, as far as they can be examined, have such a rotation. This is also true of our moon, of all the satellites of Jupiter, and of the fifth satellite of Saturn. What is true of the other satellites of the system, has not been ascertained. Secondly, The sun, the moon, the planets, and fixed stars, appear to revolve every day about the earth. This revolution is either real or apparent. If it be real, it is proved by arithmetical calculation, that the sun must move upwards of 300,000 miles in a minute. The nearest fixed stars are about 53,000 times as far from the earth as the sun is. Of course, the fixed stars about the equator must move 53,000 times faster than the sun, or more than 15,000,000,000 miles in a minute. And all this must be done to serve no other purpose, than what is as fully accomplished by the earth's turning round on its axis every 24 hours. Thirdly, If you take a thin iron hoop, and make it revolve swiftly about one of its diameters, that diameter will be diminished, and the diameter which is perpendicular to it, will be increased. It has already been remarked, that this is true of the earth. Its axis is not so long as its equatorial diameter. This figure of the earth can only have arisen from its rotation on its ax-

is. The same is true of Mars, Jupiter, and Saturn, which are *seen* to revolve on their axes. The earth's distance from the sun is 94,507,428 miles. Of course, the diameter of its orbit is 189,000,000 miles, and its circumference about 594,000,000 miles. The time in which the earth makes a revolution round the sun, is 365 days, 5 hours, 48 minutes, 48 seconds. Its hourly motion in its orbit is 75,222 miles, which is 140 times greater than that of a cannon ball; which moves about 8 miles in a minute, and would be 22 years, 124 days, 6 hours, in passing from the earth to the sun.

In addition to the proofs of the earth's *annual* revolution, furnished by our defence of the Copernican system, it may be remarked, that the sun revolves round the earth, or the earth round the sun. But there is no such thing in nature, as a heavy body moving round a lighter one, as its centre of motion. A pebble, fastened to a millstone by a string, may, by an easy impulse, be made to circulate round the millstone. But no impulse can make a millstone circulate round a loose pebble; for the millstone would go off, and carry the pebble along with it. The sun is more than a million times as large as the earth, and at least 333,000 times as heavy. If, therefore, it was moved out of its place, not only the earth, but all the other planets, would be drawn after it by the power of gravity, as the pebble would be after the millstone. The earth's axis makes an angle of 66 32 with the plane of its orbit. The earth's satellite will be described in its proper place.

The earth is surrounded with a thin, invisible, elastic fluid, called *air*, the whole body of which forms what is called the *atmosphere*. It being an elastic fluid, is capable of compression; on which account, the lower parts of the atmosphere are denser than the upper parts, and the density gradually diminishes, the higher you go, from the continual dimunition of compression; for the air being found to have weight, as you ascend, the weight of the incumbent air will be diminished. The density of the air is not always the same, it being subject to be expanded by heat and contracted by cold. In its mean state it is found to be about 850 times lighter than water. But notwithstanding the air is so extremely rare, it is capable of producing very considerable effects upon the rays of light as they pass through it, both by reflection and refraction. By reflection, the rays coming from the sun falling on the particles of air, and upon the vapors and exhalations contained in the atmosphere, are thrown in all directions, and thus the whole heavens become illuminated; by which our eyes are affected so strongly, as to render the fainter light of the stars insensible. Whereas, if there were no atmosphere, we should receive only those rays which come directly to us, and the other parts of the heavens would appear dark, and the stars would all be visible as at night. From the same cause we receive a considerable quantity of light for some time before the sun rises, and after he sets; this is called *twilight*; and were it not for this, we should be involved in total darkness, the instant after the sun is set; and there would be a sudden transition from darkness to light, at the rising of

the sun, which would be extremely prejudicial to the eyes. From the time at which twilight begins and ends, the beginning and end are found to be when the sun is about 18° below the horizon. It lasts however till the sun is further below the horizon in the evening, than he is in the morning when it begins; it also lasts longer in summer than in winter. In the *former* case, the heat of the day has raised the vapours and exhalations; and in the *latter*, they will be more elevated from the heat of the season; and therefore the twilight ought to be longer in the evening than in the morning; and longer in winter than in summer.

In the equatorial regions, darkness comes on very soon after sunset; because the convexity of the earth comes quickly in between the eye of the observer and the luminary, the motion of the earth being much more rapid there than any where else. In the latitude of 45° the time of twilight varies from 1h. 42m. to 2h. 39m.; and the inequality increases as one approaches the elevated pole. It is always longest at the time of the summer solstice, and in all countries, that have more than 48°½ of northern latitude, it continues through the night in the month of June. Under the poles it lasts seven weeks. As we approach the elevated pole, the twilight becomes brighter and brighter, until at last the sun does not appear to touch the horizon, but moves in a circle at some distance above it for many days successively. In like manner, during the winter, the same luminary sinks lower and lower, untill at last it does not appear at all; and there is only a dim twinkling of twilight for an hour or two in the middle of the day. A farther reason of all this is, that, in the northern and southern regions, only a small part of the convexity of the globe is between us and the sun for many days, and in the high latitudes none at all.

The height of the atmosphere is not yet ascertained. The beginning and ending of twilight, indeed, show that the height, at which the atmosphere begins to refract the sun's light, is about 44 or 45 miles. But this may not improbably be owing to the height to which the aqueous vapours are carried. That it actually extends much higher, is proved by the fact, that atmospheric meteors have often been seen at the height of 90 miles.

Another property of the atmosphere is that of refracting the rays of light, by which means the heavenly bodies appear out of their true places. It is a principle of optics, that when a ray of light passes out of a denser into a rarer medium, it is bent *towards* the perpendicular to the surface of the medium at the point where it enters. A ray of light therefore coming from any of the heavenly bodies, when it enters the top of the atmosphere will be bent from its rectilinear course, towards a radius drawn to the earth's centre, because the radius is perpendicular to the surface of the atmosphere; and as, in approaching the earth's surface, the density of the atmosphere continually increases, the rays of light, as they descend, are constantly entering a denser medium, and therefore the course of the ray will continually deviate from a right line towards a radius drawn to the earth's centre, and describe a curve; hence, at the surface of the earth the rays of light enter the eye of

the spectator in a different direction from what they would have entered, if there had been no atmosphere; therefore the *apparent* place of the body from which the light comes must be different from the *true* place; and as the course of the ray has been continually approaching to a radius drawn to the centre of the earth, its direction, when it comes to the surface of the earth, must be inclined from its original direction towards the zenith; therefore the *apparent* place of the body is *higher* than its *true* place. The ancients were not unacquainted with this effect: Ptolemy mentions a difference in the rising and setting of the stars in different states of the atmosphere; but he made no allowance for it in his computations. Alhazen, an Arabian optician, in the 11th century, observed the effect upon the circum-polar stars; but Tycho was the first person who constructed a table for the refractions at different altitudes, for the refraction decreases from the horizon to the zenith, where it is nothing. In the mean state of our air the refraction in the horizon is 33′.

Another property of the refraction of the air is this, that it causes all the heavenly bodies to appear in the morning above the horizon, when they are actually below it; and in the evening they appear above, a little after they are actually set; for the diameter of the sun being about 32′, the refraction in the horizon elevating it 33′, will cause it to appear above the horizon when the whole body is below. In climates nearer the equator, the refraction is less than it is here; and in colder regions it is much greater, and this is a happy provision for lengthening the appearance of the light at those parts. Gassendus relates, that some Hollanders, who wintered in Nova Zembla, in latitude 75 degrees, were agreeably surprised with a sight of the sun 17 days before they expected him. To the same cause we must attribute another phenomenon, mentioned by Pliny, that the moon had been visibly eclipsed when she was in the west, at the same time that the sun appeared above the horizon in the east. Mæstlinus, in Kepler, relates another instance of the same kind, which fell under his own observation. Also, the decrease of refraction, as the altitude above the horizon increases, makes the sun and moon appear of an oval form, more particularly in the horizon. For suppose the diameter of the sun to be 32′, and the lower limb to touch the horizon, then the mean refraction of that limb is 33′; but the altitude of the upper limb being then 32′, its refraction is only 28′ 6″, differing 4′ 54″ from the refraction of the lower limb; by this quantity therefore the vertical diameter is shortened, the lower limb being so much more elevated than the upper. The like is true at any other altitude, only in a smaller degree.

Notwithstanding the seeming inequality in the distribution of light and darkness, it is certain, that throughout the whole world, there is nearly an equal proportion of light diffused on every part, if we disregard what is absorbed by clouds, vapours, and the atmosphere itself. The equatorial regions have indeed the most intense light during the day, but the nights are long and dark; while on the other hand in the northerly and southerly parts, though the

sun shine less powerfully, yet the length of time that it appears above the horizon, with the longer duration of twilight, makes up for the seeming deficiency.

Mars. The diameter of Mars is 4189 miles, and its mean distance from the sun is 144,000,023 miles. Its annual revolution occupies 1 year, 321 days, 23 hours, 31 minutes, and its rotation on its axis 24 hours, 39 minutes, 22 seconds. It moves in its orbit at the rate of 50,000 miles an hour. Its bulk, compared with that of the earth, is as 7 to 24; its density, as 7 to 10; and its weight as 49 to 240. One pound on the earth would weigh 0·34 in this planet. Mars is of a fiery red colour. By the telescope, dark spots are discoverable on its surface; but round its poles, particularly the southern, an intense and permanent brightness. This brightness is observed to increase in extent and intenseness, as the poles are respectively visited by winter; and to decrease materially in both during the martial summer. This is, with great probability, supposed by Herschel, to be owing to the accumulation of ice and snow, in its polar regions, during nearly a twelvemonth cold, and their diminution, during a summer of the same length. The axis of Mars makes an angle of 28 42 with the plane of its ecliptic, which plane is nearly coincident with the plane of the earth's ecliptic, making with it an angle of only 1 51. Mars is an oblate spheroid. Its axis is to its equatorial diameter, as 98 to 103. It is an opaque body, never appearing horned like Mercury and Venus, but sometimes gibbous. It has an atmosphere of considerable extent.

Jupiter. Jupiter, the largest of the planets, is 89,170 miles in diameter, and 491,702,301 miles from the sun. Its bulk, compared with that of the earth, is nearly as 1400 to 1; its density as 5 to 22; and its weight as 312 to 1. One pound on the earth would weigh 2·33lbs. in Jupiter. Its shape is that of an oblate spheroid. Its polar diameter is to that of its equatorial, as 12 to 13; and the difference of their lengths, is upwards of 6000 miles. Its ecliptic and equator are nearly coincident; that is, its axis is nearly perpendicular to the plane of its orbit. Hence this planet has no sensible change of seasons. If its axis were inclined any considerable number of degrees towards the plane of its orbit, just so many degrees round each pole would, in their turn, be almost six years together in total darkness. It revolves on its axis in 9 hours, 55 minutes; and round the sun in 11 years, 314 days, 18 hours, 45 minutes. Its hourly motion in its orbit is 30,000 miles. From a comparison of the most ancient, with the modern observations, there is some reason to conclude, that the period of its revolution is decreasing. Jupiter is surrounded by faint substances, called *belts*. These were discovered in 1665. They are parallel to each other, and to the equator of the planet. So many changes appear in them, that they are generally supposed to be clouds; they have sometimes been observed of different breadths, and afterwards have all become nearly of the same breadth. Large spots often appear in them; and, when a belt vanishes, the contiguous spots disappear with it. Sometimes eight have been seen at once, covering almost the whole disc of the planet. The spots in the belts, near its equator, are found to

perform a revolution in a less time by several minutes, than the spots in the belts near the poles. This is conjectured, by Dr. Herschel, to be owing to the prevalence of winds. He thinks this conjecture confirmed by the fact, that the former are not uniform in their revolutionary periods. He also supposes that these belts do not adhere to the planet, but exist in its atmosphere. The quantity of light and heat enjoyed by Jupiter, is to that enjoyed by the earth, as 37 to 1000.

Saturn. The diameter of Saturn is 79,042 miles, and its distance from the sun is 901,668,908 miles. It bulk is proportioned to that of the earth nearly, as 1000 to 1. Its density, as 26 to 288, and its weight as 98 to 1. A body weighing 1lb. on the earth, would weigh 1·02 on this planet. It is an oblate spheroid, its axis being to its equatorial diameter, as 10 to 11. It revolves on its axis in 10 hours, 16 minutes, 2 seconds, and round the sun in 29 years, 166 days, 15 hours, 25 minutes. Its hourly motion in its orbit is about 22,000 miles. The intensity of the sun's light and heat, is about 9½ times greater at the earth than at Saturn. This planet has belts discoverable on its disc; but they are not so large or numerous as the belts of Jupiter. The most remarkable appearance, however, attending this, or indeed any of the planets, is a large ring, entirely separated from the planet itself, and yet completely surrounding it. The plane of the ring coincides with the plane of Saturn's equator, so that the axis of the planet makes a right angle with it. When the outer edge of the ring is turned towards the earth, it is invisible, except with telescopes of very great powers; either on account of its thinness, or of its almost total incapacity to reflect light. The ring is double, or is composed of two rings, having the same plane and the same centre. The outside diameter of the larger ring is 204,883 miles, and its inner diameter 190,248 miles; so that the breadth is 7318 miles. The outside diameter of the smaller ring is 184,393 miles, its inner diameter 146.345, and its breadth 19,024. The space between the rings is 2,977 miles. There is no visible connection between the two rings. They both however revolve on a common axis, in 10 hours, 32 minutes, 15 seconds; a period longer than that of Saturn's rotation by 16 minutes, 13 seconds. The ring is doubtless no less solid than the planet; and it is observed to cast a strong shadow upon it. Its light is also generally brighter than that of the planet, for it appears sufficiently bright when the telescope scarcely affords light enough for Saturn. The thickness of the ring is probably less than 1000 miles, and its outer edge is not flat, but spherical. As the planet revolves round the sun, the plane of the ring is always parallel with itself, so that in each Saturnian year, it is twice turned edgewise towards the sun.

Herschell. This planet is called in England *Georgium sidus*, on the continent of Europe, *Uranius*, and generally in this country *Herschell.* There is no reason to believe that it had ever been observed by any inhabitant of the earth before the 13th of March, 1781, when it was discovered by Dr. Herschel. Its diameter is 35,112 miles, and its distance from the sun, is 1,803,534,392. Its hourly motion in its orbit is 15,000 miles. Its bulk, compared with

that of the earth, is nearly as 90 to 1, and its weight as 16·84 to 1. A body on the earth weighing 1lb. would weigh 0·93lb. in this planet. The period of its revolution round the sun is 83 years, 150 days, 18 hours. It has not yet been determined whether it revolves on an axis. Yet there can be no doubt of this fact, as its shape is that of an oblate spheroid. The quantity of light and heat, communicated to the earth by the sun, is at least 360 times as great, as that enjoyed by Herschell; and the diameter of the sun, as seen from it, is not more than twice the apparent diameter of the planet Venus, as seen from the earth. The plane of its orbit is nearly coincident with the plane of the ecliptic. Owing to its immense distance few discoveries have been made respecting it.

Satellites. A satellite, or moon, is a body revolving round a planet, and, in company with the planet, round the sun. Of these there are 18 in our system, distributed in the following manner: 1 to the earth; 4 to Jupiter; 7 to Saturn; and 6 to Herschell.

The Moon. The moon's diameter is 2180 miles. This is to the diameter of the earth nearly as 20 to 73. Its surface is to that of the earth as 1 to $13\frac{1}{3}$; its bulk as 1 to 49; its density as 5 to 4 nearly; and its weight as 1 to 39. Its mean distance from the earth is 239,029 miles, which is to the sun's mean distance nearly as 1 to 390. The angle which its orbit makes with the ecliptic varies from 5 degrees to 5 18. The moon revolves round the earth in 27 days, 7 hours, 43 minutes. The interval of time between one new moon and the next, is 29 days, 12 hours, 44 minutes. If the earth stood still, or had no revolution round the sun, every month would be of the former length; but as the earth, during a lunary revolution, materially alters its place, it takes the moon 2 days 5 hours to regain what it has lost by the earth's motion. The moon's orbit, to a spectator on the sun, always appears concave. In different parts of its orbit the apparent size of the moon is found to vary. This is owing to the elliptical shape of the orbit. It is found by observation, that the moon always turns the same side towards the earth. Hence it must perform a rotation on an axis, and the time of this rotation must be equal to the time of the moon's synodic revolution, or 29 days, 12 hours, 44 minutes. Hence, also, though the lunar year is of equal length with ours, yet it contains only about $12\frac{1}{2}$ days, every lunar day being a little longer than $29\frac{1}{2}$ of our days. The side of the moon, which is towards the earth, during its day, receives light both from the sun and from the earth; and, during its night, only the light of the earth. The other side of the moon has, half of the time, the light of the sun; and the other half is in total darkness. Many astronomers have given maps of the face of the moon; but the most celebrated are those of Hevelius in his *Selenographia*, in which he has represented the appearance of the moon in its different states, from the new to the full, and from the full to the new. These figures Mayer prefers. Langrenus and Ricciolus denoted the spots upon its surface by the names of philosophers, mathematicians, and other celebrated men, giving the names of the most celebrated characters to the largest spots. This distinction is now generally followed, though others

have been proposed. These spots, visible on the moon, are occasioned by the mountains and vallies on its surface; for certain parts are observed to project shadows opposite to the sun, and when the sun becomes vertical to any of them, they are observed to have no shadow; these therefore are mountains: other parts are always dark on that side next the sun, and illuminated on the opposite side; these therefore are cavities. The tops of the mountains on the dark part of the moon, are frequently seen enlightened at a considerable distance from the confines of the illuminated part. These mountains were formerly supposed to be of a very great height. This, however, is a mistake. The highest observed by Herschell is $1\frac{47}{100}$ mile. Very few of the others are more than half a mile. It is not determined whether the moon has an atmosphere. No clouds or vapours, however, can be discovered near its surface. Mr. Schroeter, of Lilianthon, has endeavoured to establish the existence of the moon's atmosphere from the following observations. He observed the moon, when two days and a half old, in the evening, soon after sunset, before the dark part was visible; and continued to observe it till it became visible. The two cusps, or horns, appeared tapering in a very sharp, faint prolongation, each exhibiting its farthest extremity faintly illuminated by the solar rays, before any part of the dark hemisphere was visible. This prolongation of the cusps he thinks must arise from the refraction of the sun's rays by the moon's atmosphere. When the moon is in conjunction with the sun, she is said to be *new*, and is then invisible: As she goes eastward she appears *horned*, till she gets 90 degrees from the sun, when she appears half enlightened, or *dichotomized*; from thence, till she comes into opposition, she appears more than half enlightened or *gibbous*; and at opposition she appears full. From opposition to conjunction her apparent bright part decreases, as it before increased. When the moon is about three days from the new, the dark part is visible by the light reflected from the earth; but when she is in quadrature, her great light prevents the dark part from being seen. The strength of moonlight, at the full moon, is thus calculated by Nicholson. When the moon is visible in the day time, its light is so nearly equal to that of the lighter, thin clouds, that it is with difficulty distinguished from them. Its light continues the same during the night; but the absence of the sun suffering the pupil of the eye to dilate itself, it becomes more conspicuous. It therefore follows, that, if every part of the sky were equally luminous with the moon's disc, the light would be the same as if, in the day time, it were every where covered with such thin clouds. He calculates, that 90,000 moons would about cover the whole surface of the sky visible at one time. Of course 90,000 moons would afford as much light, as we enjoy when the sky is covered with such clouds. Mr. Bouguer, from experiments on lunar light, concludes that 300,000 moons would not make a stronger light than that of clear bright sunshine. The light of the moon condensed by the best mirrors produces no sensible effect upon the thermometer. The earth in the course of a month shows the same phases to the lunarians, as the moon does to us; the earth is at the full, at

the time of new moon, and new at the time of full moon. The surface of the earth being about 13 times greater than that of the moon, it affords 13 times more light to the moon, than the moon does to us.

It is remarkable, that, when the moon is full near the middle of September, there is less difference between the times of two successive risings, than there is, when she is full at any other season of the year. By this means she affords an almost immediate supply of light, after sunset, for a whole week together, which is very beneficial at that season for gathering in the fruits of the earth. Hence this full moon is called the *Harvest Moon*. This phenomenon is owing to the following causes. The moon, when full, is always opposite to the sun. The sun in September is in Libra. Of course the moon, when full, at that time, is in Aries. The moon's orbit is nearly coincident with the ecliptic. In northern latitudes, the ecliptic, and, of course, the moon's orbit, makes a smaller angle when the first point of Aries rises, than at any other time. When this angle is small, the moon will, as it goes from the full towards the new, advance a smaller number of degrees below the horizon, in 24 hours, than when it is great; because in the first instance it descends very obliquely, in the second more perpendicularly. And, as a body, which is at a small distance below the horizon at sunset, will rise sooner than one at a greater distance; it follows, that the intervals between the moon's rising for several successive nights will be less than at any other seasons of the year when she is full.

When the moon is near the horizon, her distance from the eye is really greater than when she is on the meridian. Still, her apparent diameter, as seen by the naked eye, is usually two or three times greater in the former case, than in the latter; though, when measured by an instrument, her diameter is not increased at all. This phenomenon is called the horizontal moon. It is thus accounted for. The visible heavens form, apparently, part of a concave sphere. But that part of the heavens, which is visible at any one time, is much less than a hemisphere; that is, the centre of the sphere is much below the eye. When the moon, or a star, is elevated about 23 degrees above the horizon, it appears advanced half way from the horizon to the zenith, owing to an ocular illusion occasioned by this shape of the sky; for the eye estimates the distance of any two objects in the heavens by the quantity of sky, that appears to lie between them; and the apparent quantity of sky, from the zenith to the plane of the sensible horizon, is not greater than about 46 degrees; although the real quantity of sky from the zenith to the spot where the moon rises, is 90 degrees. Hence 23 degrees of sky near the horizon, appear about as large, as the remaining 67 degrees. A body therefore near the horizon would appear, from this cause, nearly three times as large, as the same body in the zenith. In the same manner the extremities of a rainbow appear to the naked eye broader, than the centre of the arch; and two stars near the horizon farther apart, than the same stars on the meridian; though this is not the case, when these objects are

seen through an instrument. This will account for the ordinary increase of size in the horizontal moon. But the horizontal moon sometimes appears five or six times as great as the moon on the meridian. This unusual enlargement is owing to the state of the atmosphere. A horizontal line, drawn from the eye to the extremity of the atmosphere, would pass through a much longer tract of air, than a line passing from the eye to the zenith. When the air is misty, a body near the horizon will, of course, appear more faint, than when in the zenith. Faintness always suggests the idea of greater distance. And the mind always concludes that a body, appearing at a greater distance of a given diameter, is really larger than a body appearing, of the same diameter, at a smaller distance.

Eclipses. An eclipse of the moon is caused by its entering into the earth's shadow, and consequently it must happen at the full moon, or when she is in opposition to the sun, as the shadow of the earth must lie opposite to the sun. An eclipse of the sun is caused by the interposition of the moon between the earth and sun, and therefore it must happen when the moon is in conjunction with the sun, or at the new moon.

If the plane of the moon's orbit coincided with the plane of the ecliptic, there would be an eclipse at every conjunction and opposition; but the plane of the moon's orbit being inclined to the plane of the ecliptic, there can be no eclipse at conjunction or opposition, unless at that time the moon be at, or near, the node.

The ecliptic limits of the sun are to those of the moon as 17 21 to 11 34, or nearly as 3 to 2, and hence there will be more solar than lunar eclipses, in about that ratio. But more lunar than solar eclipses are seen at any given place, because a lunar eclipse is visible to a whole hemisphere of the earth at once; whereas a solar eclipse is visible to a part only, and therefore there is a greater probability of seeing a lunar than a solar eclipse. Since the moon is as long above the horizon as below, every spectator may expect to see half the number of lunar eclipses which happen.

If the earth had no atmosphere, when the moon was totally eclipsed, she would be invisible; but by the refraction of the atmosphere, some rays will be brought to fall on the moon's surface, on which account the moon is rendered visible, and of a dusky red colour.

An eclipse of the moon arising from a real deprivation of light, must appear to begin at the same instant of time to every place on that hemisphere of the earth, which is next the moon. Hence, it affords a ready method of finding the longitudes of places upon the earth's surface.

The diameters of the sun and moon are supposed to be divided into 12 equal parts, called *digits*, and an eclipse is said to be so many digits, according to the number of those parts which are involved at the greatest darkness.

The greatest number of eclipses, which can happen in a year, is seven, and when this happens, five will be of the sun and two of the moon. The least number which can happen is two, and these must be both solar; for in every year there must be two solar eclipses. The mean number in a year is about four.

In a total eclipse of the sun, the planets, and some of the brightest of the fixed stars have been seen.

There are two seasons in the year when eclipses happen, that is, when the earth approaches near each node, as before shown; and as the nodes lie at opposite points of the earth's orbit, these seasons would be at the distance of half a year from each other, if the nodes were stationary; but as the nodes have a retrograde motion of about 19 degrees in a year, and the earth moves about a degree in a day, the seasons of eclipses will return at an interval of about 9 or 10 days less than half a year; so that if there be eclipses about the middle of January, the next eclipses may be expected about the first week of July.

Jupiter's Moons. These are four in number, and were discovered by Galileo, Jan. 8, 1600, who called them *Medicea sidera.* Their distances from the planet, periodical times, &c. may be learnt from the tables at the close of our account of the solar system. The first and third are larger than the earth: the second and fourth are considerably less than Venus though larger than Mars. They all revolve on their axes, and also round the planet, from west to east. As they pass behind the planet the three nearest are eclipsed in every revolution, and the fourth generally, though not always. The duration of the eclipses of the three first, is not always the same. Hence no one of them has an orbit coincident with that of Jupiter. As they pass between the sun and their primary, their shadows are seen moving over its disc; as the satellites themselves are when they pass between the earth and Jupiter. When the planet is directly between them and the earth, they suffer what is called an occultation. The square of the periodic times of these, and all the satellites of the system, are as the cubes of their distances from the primary.

The progressive motion and velocity of light was discovered by observations on the satellites of Jupiter. These satellites are eclipsed at regular intervals, and tables of the times when these eclipses are to happen, are constantly published. It is found that, when the earth is exactly between Jupiter and the sun, his satellites appear eclipsed $8\frac{1}{4}$ minutes *sooner* than they would be according to the tables; but that, when the earth is at its greatest distance from Jupiter, these eclipses happen about $8\frac{1}{4}$ minutes *later*, than the tables predict them. Hence it follows that light takes up $16\frac{1}{2}$ minutes in passing over the diameter of the earth's orbit, which is about 190 millions of miles. This is nearly at the rate of 200,000 miles a second. By means of them also Jupiter's distance from the earth may be discovered, and the longitudes of places on the earth's surface.

Satellites of Saturn. Of these Huygens discovered the fourth in 1665; Cassini the fifth in 1671, the third in 1672, the first and second in 1684; and Herschell the sixth in 1787, and the seventh in 1788. These last are nearer to Saturn, than the other five; but, to prevent confusion in the numbers with regard to former observations, they are called the sixth and seventh. The tables exhibit their periods and distances from their primary. The third satellite

is the largest of all; the first and fourth are nearly of the same size.

The orbits of the four first make an angle of about 31 degrees with Saturn's ecliptic. Hence they are rarely eclipsed. The orbit of the fifth makes with it an angle of only 17 degrees.

The fifth, like our moon, has a rotation on its axis, in the same time that it revolves round its primary.

Satellites of Herschell. These are six in number. The second and fourth were discovered by Herschell in 1787; and, what is entirely singular in our sytem, he observed, that their orbits made an angle of more than 99 degrees with the ecliptic of the primary. The other four were also discovered by Herschell. The first and fifth in 1790, and the other two in 1794. Their light is extremely faint; but the fourth is somewhat the brightest. The sixth, at its greatest distance, is farther removed from the earth than any body, if we except the comets, that is known to belong to our system. Of all the bodies hitherto described, the satellites of Herschell alone revolve from east to west, or in a retrograde direction.

*Asteroids.** These bodies were entirely unknown, till the commencement of the present century; though Mr. Maclaurin, about 100 years ago, intimated the probability of their future discovery, by some diligent astronomer; and Mr. Capel Lofft, in March, 1800, threw out several fortunate hints respecting a new planet, lying between Mars and Jupiter. They appear of the size of stars of the 8th magnitude. It was owing to their diminutive size, that Herschell refused them a place among the planets, and gave them the name of Asteroids, though they are really primary planets, revolving round the sun.

Ceres was discovered by Joseph Piozzi, at the royal observatory at Palermo, January 1, 1801. It appears like a star of the 7th or 8th magnitude. Its diameter is estimated by Dr. Herschell at 160 miles; but this cannot be relied on as exact. All the asteroids are too small to be measured with precision. Their orbits are all between those of Mars and Jupiter. Ceres revolves in 4 years, 7 months, 10 days. Its mean distance from the sun is 263,633,000 miles.

Pallas was discovered by Dr. Olbers of Bremen, March 28, 1802. It appears sometimes like a star of the 7th magnitude, and sometimes considerably less. Its diameter is 110 miles. Its periodical revolution is 4 years, 7 months, 11 days; and its distance from the sun 267,438,000 miles. The orbits of Ceres and Pallas are said to cross each other.

Juno was discovered by Mr. Harding, at Lilienthal, near Bremen, September 1st, 1804. It appears like a star of the 8th magnitude. Its periodical revolution is a little longer than those of Ceres and Pallas. Its diameter is 119 miles. Its distance from the sun is 286,541,000 miles.

Vesta was discovered by Dr. Olbers, March 29, 1807. It may be seen by the naked eye, like a star of the fifth or sixth magnitude,

* From ἀστρ star, and εἶδος appearance.

and very much like the planet Herschell. The angle which its diameter subtends, is about half a second. Its periodical revolution is 3 years, 2 months, 5 days, and its mean distance, 206,596,000 miles. These elements all require to be corrected by future observations.

TABLE OF ASTEROIDS.

Names.	When Discovered.	Periodical time.	Distance from the Sun.	Inclination of the Orbit.	Eccentricity.
		y. m. d.		° ′	
Vesta	March 29, 1807	3 2 5	206,596,000	7 8	0·095
Ceres	January 1, 1801	4 7 10	263,663,000	10 37	0·097
Pallas	March 28, 1802	4 7 11	267,438,000	34 40	0·246
Juno	Septem. 1, 1804	longer than the two last.	286,541,000	21	0·25

Thus, of the 30 bodies, beside the comets, belonging to our system, only eight were known to the ancients; viz. the Sun, Mercury, Venus, the Earth, the Moon, Mars, Jupiter, and Saturn. Of the remaining 22, 9 were discovered in the 17th century; viz. Jupiter's four moons, by Galileo; Saturn's fourth, by Huygens; his first, second, third, and fifth, by Cassini: 9 in the 18th century; viz. Saturn's sixth and seventh moons, the planet Herschell, and his six moons, all by Dr. Herschell: and four already in the 19th; viz. Ceres, by Piozzi; Pallas, by Olbers; Juno, by Harding: and Vesta, by Olbers.

Comets. Comets are bodies revolving in very eccentric ellipses about the sun in one of the foci. They are popularly called *blazing stars*, having this to distinguish them from other stars, that they are usually attended with a long train of light, always opposite to the sun, and of a fainter lustre the farther it is from the body. When a comet is east of the sun, and moving from it, it is said to be *bearded*; because the light precedes the body or *nucleus* of the comet, like a beard. When a comet is west of the sun, and sets after it, it is said to be *tailed*; because a train of light follows it, in manner of a *tail*. When the sun and the comet are on opposite sides of the earth, the train is principally hid behind the body of the comet, and the little that appears has the form of a border of hair, or *coma*, whence it is called *hairy*; and whence the name *comet* is derived. The substance of the bodies of comets must be extremely solid, or they would be dissipated in their perihelion, or nearest approach to the sun. According to Sir Isaac Newton, the comet of 1680 endured a heat 28,000 times as great as that of the sun, in midsummer; or about 9,000 times as great as the heat of boiling water; or 2,000 times as great as the heat of red hot iron. The same author calculates, that a globe of red hot iron, as large as the earth, would not cool in 50,000 years. If, then, the comet be supposed to cool 100 times faster than red hot iron; yet, since its heat was 2,000 times greater, if of the bigness of the earth, it would not cool in a million

of years. Their *nuclei* are most luminous when near the sun; and their tails are brightest immediately after the perihelion. Their tails are also transparent, so that the smallest stars are visible through them; and are always broader and less luminous at the upper extreme, than near the comet. Newton supposes the tail to be a thin vapor emitted by the nucleus, ignited by the sun. The nuclei are liable to apparent changes, supposed to be owing to changes in their atmospheres. Little is ascertained respecting the magnitudes of comets. Tycho computes the diameter of that of 1577, to be $\frac{3}{14}$ths of the earth's diameter. Hevelius supposes the diameters of the comets of 1661 and 1665 to be less than $\frac{1}{10}$th that of the earth. The diameter of the comet of 1664, he estimated at one time, equal to 6 of the earth's diameters, and at another time, to $2\frac{1}{2}$. That of 1744 is supposed to have had a diameter 3 times as long as that of the earth. Their *apparent* magnitudes are also very various. That, which appeared in the time of Nero, was, as Seneca relates, apparently as large as the sun; and that of 1652, according to Hevelius, did not seem to be less than the moon, though of a very pale, dim light. Many of them appear no larger than stars of the first magnitude, and others still less. It is supposed that some of the solar eclipses, recorded in history, have been occasioned by the interposition of comets between the earth and the sun; as it is found by calculation that the moon could not have occasioned them at the seasons when they are said to have happened.

The number of comets belonging to our system has never been ascertained. Conjecture has limited it to 450. The elements of 97 of them have been determined with some degree of accuracy. The angles, which their orbits made with the plane of the ecliptic, were found to vary from 1 to 88 degrees. The perihelion distance of the comet of 1351 was just equal to the earth's mean distance. The perihelion distance of 24 of the others, was greater than this, and of the remaining 72, less. The least distance of the comet of 1680, was only 122,000 miles from the surface of the sun; while its greatest distance was 12,189,000,000 miles. The perihelion distance of the comet of 1759 is about 52,000,000 miles; its aphelion distance 3,342,500,000. These are the only two comets whose periods are known. That of the latter is about 76 years. It appeared in 1759, 1682, 1607, 1531, and 1456; and will probably re-appear in 1835. The period of the former is 575 years. It appeared in 1680, 1106, 531, and in 44, before Christ, and probably will not re-appear, till 2255. There is also strong reason to conclude, that the comet of 1264 was the same with that of 1556. If so, its period is 292 years; and it ought to appear again in 1848. Dr. Halley imagined, that the comet of 1661 was the same with that of 1532; and that its period was 129 years; but in 1790, it was found to have violated its engagements. Dr. Halley had the honor first to foretel the return of a comet. It was the comet of 1759. The velocity of a comet increases as it approaches the sun. That of 1680, in its perihelion, moved with the amazing velocity of 880,000 miles an hour. The comet of 1744,

had a tail of the length of 23,000,000 of miles; and that of 1759, of more than 40,000,000. The orbits of comets make very different angles with the plane of the ecliptic: 50 out of the 97, whose elements have been calculated, had a direct motion, or from west to east; and [redacted] from east to west. The comet of 1680, on the 11th of November, at 1 hour, 6 minutes, P. M. was only 4000 miles north of the orbit of the earth. If the earth at that time, had been in the part of its orbit nearest to the comet, their mutual gravitation must have caused a change in the plane of the earth's orbit, and in the length of our year. Dr. Halley remarks that, if so large a body, with so rapid a motion, as that of this comet near its perihelion, were to strike against the earth, a thing by no means impossible, the shock might reduce this beautiful frame to its original chaos. Whiston supposed the deluge to have been owing to its near approach to the earth. Whether this was the fact, however, cannot be ascertained. We only know that it was near its perihelion, at the time of the deluge, according to the Hebrew chronology. He also conjectured, that it would, probably, be the instrumental cause of the final conflagration. Mr. Cole, in his Theory of Comets, advances an hypothesis, which, in some cases, may perhaps be true. He supposes, that the orbit of a comet is not an ellipse; but that, when it passes its perihelion, it acquires so great a velocity, that it continues to recede from the sun, till it comes within the attraction of some fixed star; that this attraction may give it a new direction, and increase its velocity anew, till it performs its perihelion around that star, as another sun; when it may again fly off, and thus visit many different systems.

The following tables, taken, with some alterations, from Clarke's Commentary on the Bible, will present a full and interesting summary of the bodies in our solar system, together with their magnitudes, distances, periods, &c.

TABLE I. SUN AND PLANETS.

Names.	*Diameter.*	*Bulk, the Earth being* 1.	*Weight, the Earth being* 1.	*Time of rotation on their axis.* d. h. m. s.	*Inclination of axis to Equator*	*Hourly motion in their orbits.*	*Weight of* 1 *lb. at the surface.*
Sun	883,246	1,380,000	333,928	25 14 8 0			27·7
Mercury	3,224	$\frac{1}{15}$	0·165	unknown	unknown	111,256	1·0333
Venus	7,687	$\frac{8}{9}$	0·8899	23 22 0	75° 00′	81,398	0·9771
Earth	7,928	1	1	23 56 4	23 28	75,222	1·0000
Moon	2,180	$\frac{1}{49}$	$\frac{1}{39}$	27 7 43 5	1 43	2,335	0·1677
Mars	4,189	$\frac{7}{24}$	0·0875	1 0 39 22	28 42	56,212	0·3355
Jupiter	89,170	1400	312·1	9 55 36	3 22	30,358	2·3287
Saturn	79,042	1000	97·76	10 16 14	30 00	22,351	1·0154
Ring	204,883			10 32 15	30 00	22,351	
Herschel	35,112	90	16·84	unknown	unknown	15,846	0·9285

Names.	Mean distances from the Sun.	Proportion of Light & Heat.	Inclination of orbits to the Ecliptic.			Periodical Revolution.					Sidereal Revolution.				
			°	′	″	y.	d.	h.	m.	s.	y.	d.	h.	m.	s.
Mercury	36,583,825	6·25	7	0	0	0	87	23	14	33	0	87	23	15	40
Venus	68,360,058	2·04	3	23	45	0	224	16	41	27	0	224	16	49	11
Earth	94,507,428	1·				1	0	5	48	48	1	0	6	9	12
Moon	94,507,428	1·	5	9	0	0	27	7	43	5	0	27	7	43	12
Mars	144,000,023	0·44375	1	51	0	1	321	22	18	27	1	321	23	30	36
Jupiter	491,702,301	0·036875	1	19	15	11	315	14	39	2	11	317	14	27	11
Saturn	901,668,908	0·01106	2	30	45	29	164	7	21	50	29	176	14	36	43
Sat. Ring	901,668,908	0·01106				29	164	7	21	50	29	176	14	36	43
Herschell	1,803,534,392	0·00276	0	48	0	83	294	8	39	0	84	29	0	29	0

TABLE II. ASTEROIDS.

Names.	Diameter, in miles.	Proportional bulk.	Proportional surface.	Distance from the Sun.	Periods.					Inclination of orbit to the Ecliptic.		
					y.	d.	h.	m.	s.	°	′	″
Ceres	161·6	$\frac{1}{123000}$	$\frac{1}{2500}$	250,000,000	4	213	13	41	56	10	37	34
Pallas	110	$\frac{1}{380000}$	$\frac{1}{3300}$	270,000,000						35	0	42
Juno	119	$\frac{1}{370000}$	$\frac{1}{4300}$	285,000,000						13		
Vesta										7	5	50

TABLE III. JUPITER'S SATELLITES.

Satellites.	Diameter.	Bulk, the Earth being 1.	Distance from Jupiter.	Periodic Revolution.				Synodic Revolution.				Greatest distance from the Earth.
				d.	h.	m.	s.	d.	h.	m.	s.	
I.		$1\frac{13}{100}$	266,000	1	18	27	33	1	18	28	36	
II.		$\frac{6}{100}$	423,000	3	13	13	42	3	13	17	54	
III.		$1\frac{3}{23}$	676,000	7	3	42	33	7	3	59	36	
IV.		$\frac{23}{30}$	1,189,000	16	16	32	8	16	18	51	7	

TABLE IV. SATELLITES OF SATURN.

Satellites.	Distance from Saturn.	Periodic Revolution.				Synodic Revolution.			
		d.	h.	m.	s.	d.	h.	m.	s.
VII.	107,000	0	22	37	23	0	22	37	30
VI.	135,000	1	8	53	9	1	8	53	24
I.	170,000	1	21	18	26	1	21	18	55
II.	217,000	2	17	44	51	2	17	45	51
III.	303,000	4	12	25	11	4	12	27	55
IV.	704,000	15	22	41	13	15	23	15	20
V.	2,050,000	79	7	53	42	73	22	3	13

TABLE V. SATELLITES OF HERSCHELL.

Satellites.	Distance from Herschell.	Periodic Revolution.				Synodic Revolution.			
		d.	h.	m.	s	d.	h.	m.	s.
I.	226,450	5	21	23	22	5	21	25	0
II.	293,053	8	16	57	43	8	17	1	19
III.	342,784	10	22	58	20	10	23	4	0
IV.	392,514	13	10	56	29	13	11	5	1
V.	785,028	38	0	39	4	38	1	49	0
VI.	1,570,057	107	7	35	16	107	16	40	0

OF THE FIXED STARS.

Those stars, which, when seen by the naked eye, or through telescopes, keep constantly in the same situation with respect to each other, are called *fixed stars*. They are easily distinguished from the planets by their twinkling. They appear of various magnitudes. This may arise from their different sizes, or distances, or both. Astronomers have distinguished them, from their apparent magnitudes, into six classes. The *first* contains those of the largest apparent size, the *second* those which appear next in bigness; and so on to the sixth, which includes all those that can just be seen without telescopes. Those, which can be seen only by the help of the telescope, are called *telescopic* stars. This classification, however, cannot be very exact; for there are almost endless varieties in their apparent size, colour, or brilliancy; and, in some of these respects, many stars appear to undergo changes, so that the same star may be reckoned by some astronomers in the fisrt class, and by others in the second or third.

Number of stars of each magnitude.

Place.	Magnitudes.						
	1st	2d	3d	4th	5th	6th	Total.
In the Zodiac	5	16	44	120	183	646	1014
In the Northern Hemisphere	6	24	95	200	291	635	1251
In the Southern Hemisphere	9	36	84	190	221	323	865
Total	20	76	223	512	695	1604	3130

The stars in the preceding table are so numerous, that it would be impossible to furnish names for them all and retain those names in the memory. To remedy this inconvenience the ancients distributed them into *constellations*, to which they gave the names of birds, beasts, fishes, &c. from an imaginary resemblance between the forms of the constellations, and of those animals. The stars of each constellation are numbered, according to their magnitude, by the letters of the Greek alphabet. α is the largest, β the second, γ the third, &c. This division of the heavens was very ancient;

for some of the constellations are mentioned by Homer and Hesiod, by Amos and Job. The following tables exhibit the names of the constellations; of some of the most remarkable stars standing against the constellation to which they belong; and the number of the stars in each constellation according to different astronomers.

I. Constellations of the Zodiac.

Constellations.	Chief stars.		Ptolemy.	Tycho.	Hevelius.	Flamstead.
Aries			18	21	27	66
Taurus	Aldebaran	1	44	43	51	140
Gemini	Castor & Pollux	1 2	25	25	38	85
Cancer			3	15	29	83
Leo	Regulus	1	35	30	49	95
Virgo	Spica Virginis	1	32	33	50	110
Libra	Zuvenisch Mali	2	17	10	20	51
Scorpio	Antares	1	24	10	20	44
Saggittarius			31	14	22	69
Capricornus			28	28	29	51
Aquarius	Scheat	3	45	41	47	108
Pisces			38	36	39	113

II. Constellations north of the Zodiac.

Constellations.	Chief stars.		Ptolemy.	Tycho.	Hevelius.	Flamstead.
Ursa Minor	Pole star	2	8	7	12	24
Ursa Major	Dubhe	1	35	29	73	87
Perseus	Algenib	2	29	29	46	59
Auriga	Capella	1	14	9	40	66
Bootes	Arcturus	1	23	18	52	54
Draco	Rostaber	3	31	32	40	80
Cepheus	Alderamin	3	13	4	51	35
* Canes venaticis, viz. Asterion and Chara					23	25
* Cor Caroli						3
Triangulum			4	4	12	16
* Triangulum minus						5
* Musca						6
* Lynx					19	44
* Leo Minor						53
* Coma Berenices				14	21	43
* Camelopardalis					32	58
* Mons Menelaus						11
Corona Borealis			8	8	8	21
Serpens			18	13	22	64
* Scutum Sobieski					7	8

Constellations.	Chief stars.		Ptolemy.	Tycho.	Hevelius.	Flamsteed.
Hercules	Ras Algiatha	3	29	28	45	113
Serpentarius vel Ophiuchus	Ras Alhagus	3	29	15	40	74
* Taurus Poniatowski						7
Lyra	Vega	1	10	11	17	22
* Vulpecula et Anser					27	37
Sagitta			5	5	5	18
Aquila	Altair	1	15	15	42	71
Delphinus			10	10	14	18
Cygnus	Deneb Adige	1	19	18	47	81
Equuleus			4	4	6	10
* Lacerta						16
Pegasus	Markab	2	20	19	38	89
Andromeda	Almaac	2	23	23	47	66

III. Constellations south of the Zodiac.

Constellations.	Chief stars.		Ptolemy.	Tycho.	Hevelius.	Flamsteed.
* Phenix						13
* Officini sculptoria						12
Eridanus	Achernar	1	34	10	27	84
* Hydrus						10
Cetus	Menkar	2	22	21	45	97
* Formax Chemica						14
* Horologium						12
* Reticulis Rhomboidalis						10
* Xiphias						7
* Celapraxitellis						16
Lepus			12	13	16	19
* Columba Noachi						10
Orion	Betelguese	1	38	42	62	78
Argo Navis	Canopus	1	45	3	4	64
Canis Major	Sirius	1	29	13	21	31
* Equuleus Pictonius						8
* Monaceros						31
Canis Minor	Procyon	1	2	2	13	14
* Chameleon						10
* Pyxis Nautica						4
* Piscis Volans						8
Hydra	Cor Hydræ	1	27	19	31	60
* Sextans					11	41
* Robur Carolinum						12
* Machina Pneumatica						3
Crater	Alkes	3	7	3	10	31

Constellations.	Chief stars.		Ptolemy.	Tycho.	Hevelius.	Flamsteed.
Corvus	Algorab	3	7	4		9
* Crosiers						6
* Musca						4
* Apis Indica						11
* Circinus						4
Centaurus			37			35
Lupus			19			24
* Quadra Euclidis						12
* Triangulum Australe						5
Ara			7			9
* Telescopium						9
Corona Australis			13			12
* Pavo						14
* Indus						12
* Microscopium						10
* Octans Hadlianus						43
* Grus						14
* Toucan						9
Piscis Australis	Formathaut	1	18			24

In these tables the constellations which have the mark * against them are modern, the others are ancient.

The whole number of the constellations is 90. Of these 48 are ancient, and 42 modern; 33 north of the Zodiac, 12 in the Zodiac, and 45 south of it. Those stars, which have never been arranged into constellations, are called *unformed* stars. Those, whose distance from the nearest pole is less than the latitude of the place, never set below the horizon, and are called *circumpolar* stars. The circles, which they appear to describe in consequence of the earth's rotation, are called *circles of perpetual apparition.* Those stars, whose distance from the farthest pole, is less than the latitude of the place, never rise above the horizon. They also receive the same name; and the circles, which they appear to describe, are called *circles of perpetual occultation.* The real number of the fixed stars cannot be ascertained. Before the invention of the telescope, it was not supposed to surpass 3000. But since that event it has been found, that to the greater perfection that instrument is brought, the greater, in a very high proportion, is the number of the stars, which may be observed. Galileo found 80 stars in the belt of Orion's sword. De Rheita counted 188 in the Pleiades, and more than 2000 in the constellation of Orion, of which only 78 are visible to the naked eye. The fixed stars, as seen through a telescope, are found to be collected in clusters. When a small magnifying power is used, these clusters appear like small light clouds, and hence have been called *nebulæ.* Dr. Herschell has given a catalogue of more than 2000 nebulæ, which he has discovered. When these nebulæ are examined with a telescope of

great magnifying power, they are found to consist of immense multitudes of stars. Dr. Herschell is of opinion, that the starry heaven is replete with these nebulæ: that each nebula is a distinct and separate system of stars; and that each star is the sun or centre of its own system of planets. That bright, irregular zone, which we call the *Milky Way*, he has very carefully examined, and concludes that it is the particular nebula to which our sun belongs. In examining it, in the space of a quarter of an hour, he has seen the astonishing number of 116,000 stars pass through the field of view of a telescope of only 15′ aperture; and, in 41 minutes, he saw 258,000 stars pass through the field of his telescope. It is probable that each nebula in the heavens is as extensive, and as well furnished with stars, as the milky way; that many nebulæ, within the reach of the telescope, have not yet been discovered; and that very many more lie beyond its reach, in the remote regions of the universe. If this be true the number of 75,000,000, which La Lande assigned, as the whole number of the fixed stars, will be seen to fall far short of the truth.

The distance of the fixed stars, however, is so great, that their number will, probably, never be calculated with certainty. The diameter of the earth's orbit is 190 millions of miles. Of course, when the eye is placed at one end of this diameter, it is so much nearer given stars, than when at the opposite end. Yet this immense distance makes no apparent difference in the size of any of them, nor any difference in their relative situations. When seen through the telescope, also, their size, instead of being increased, is diminished. Dr. Bradley estimates the distance of the nearest fixed star to be 80,000 times that of the sun, and the distance of *γ draconis* to be 400,000 times that of the sun. These estimates are undoubtedly less than the truth. Light passes from the sun to the earth in about 8¼ minutes. It would be a year and a fifth in passing from the nearest fixed star to the earth, and more than 6 years in passing from *γ draconis*, on Dr. Bradley's supposition. The distance of the nearest fixed star is estimated to be more than 5,000,000,000,000 miles from us, a distance which a cannon ball, moving at the rate of 480 miles an hour, would not pass over in less than 1,180,000 years. Astronomers generally, however, have calculated the distance of the *nearest* fixed star, at 400,000 times the diameter of the earth's orbit.

The *real magnitudes* of the fixed stars are not known. In astronomical calculations they are generally supposed to be equal to that of the sun.

With regard to their *nature* we can make nearer approaches to certainty. We know that they shine by their own light; 1st, because reflected light is too feeble to shine at all to such an immense distance, and much more with the bright lustre of the fixed stars; 2dly, because if they borrowed their light from any large luminous body which was near them, that body would itself be visible. They resemble the sun in several other particulars. Many of them are observed to revolve on an axis; to have spots on their surface, and changeable spots, too, like those of the sun. Hence they are very

fairly concluded to be suns, each one a centre of light, and warmth, and motion for its own system of planets. Many of the stars, which appear single to the naked eye, Dr. Herschell has discovered to be double, treble, and even quadruple. He has observed about 700 of this description. Several stars, observed by ancient astronomers, are not now to be found; and several are now observed, which do not appear in their catalogues. The first new star, of which we have any accurate account, is that discovered by Cornelius Gemma, on November 8, 1572, in the chair of Cassiopea. It exceeded Sirius in brightness, and was seen at mid-day. At first, it appeared larger than Jupiter; but gradually decayed, and after 16 months entirely disappeared. Kepler discovered another in October, 1604, near the heel of the right foot of Serpentarius. It was extremely brilliant, and larger than Jupiter. It was observed to be every moment changing into some of the colours of the rainbow, except while near the horizon, when it was white. It gradually diminished, till October, 1605, when it came too near the sun to be visible, and was never seen afterwards. A new star appeared in the neck of the Whale, in 1596, and after three months disappeared. It was discovered again in 1637, and after an occultation of about 9 months, became again visible. The star *Algol* in Perseus has a periodic variation every 2 days 21 hours. Its greatest brightness is of the second, its least of the fourth magnitude. It changes from the second to the fourth, in $3\frac{1}{2}$ hours and back again in the same time, and retains its full size for the remaining 2 days 14 hours. Many others undergo similar changes. It ought also to be remarked that the fixed stars are now generally believed to have proper motions of their own, and that Dr. Herschell concludes, from a great variety of observations, that our system is moving towards a point in the heavens, near to the star called λ *herculis*.

THE GLOBES, AND THEIR USE.

A globe is a round body, whose surface is every where equally remote from the centre. But by the *globes*, sometimes called *artificial globes*, is here meant two spherical bodies, whose convex surfaces are supposed to give a true representation of the earth and the apparent heavens. One of these is called the *terrestrial*, the other the *celestial* globe. On the convex surface of the terrestrial globe, all the parts of the earth and sea are delineated in their relative size, form and situation.

On the surface of the celestial globe, the images of the several constellations and the unformed stars are delineated; and the relative magnitude and position, which the stars are observed to have in the heavens, are carefully preserved.

In order to render these globes more useful, they are fitted up with certain appurtenances, whereby a great variety of useful problems are solved in a very easy and expeditious manner.

The *brazen meridian* is that ring in which the globe hangs on its axis, represented by two wires passing through its poles. The

circle is divided into four quarters of 90 degrees each; in one semicircle the divisions begin at each pole, and end at 90 degrees of the equator, where they meet. In the other semicircles, the divisions begin at the equator, and proceed thence toward each pole, where they end at 90 degrees. The graduated side of this brazen circle serves as a meridian for any point on the surface of the earth, the globe being turned about till that point come under it.

The *hour circle* is a small circle of brass, divided into 24 hours, the quarters and half quarters. It is fixed on the brazen meridian, with its centre over the north pole; to the axis is fixed an index, that points out the divisions of the hour circles as the globe is turned round its axis. Sometimes the hour circle, with its divisions, is described or marked about the north pole on the surface of the globe, and is made to pass under the index. In some of Adams' globes, the equator is used as an hour circle, over which is placed a semicircular wire, carrying two indices, one on the east side of the brazen meridian, and the other on the west.

The *horizon* is represented by the upper surface of the wooden circular frame encompassing the globe about its middle. On this wooden frame there is a kind of perpetual calendar, contained in several concentric circles. The inner one is divided into four quarters of 90 degrees each; the next circle is divided into the 12 months, with the days in each according to the new style; the next contains the 12 equal signs of the zodiac or ecliptic, each being divided into 30 degrees; the next the 12 months and days according to the old style; and there is another circle containing the 32 points of the compass, with their halves and quarters. Although these circles are on most horizons, yet they are not always placed in the same order.

The *quadrant of altitude* is a thin slip of brass, one edge of which is graduated into ninety degrees and their quarters, equal to those of the meridian. To one end of this is fixed a brass nut and screw, by which it is put on and fastened to the meridian; if it be fixed in the zenith, or pole of the horizon, then the graduated edge represents a vertical circle passing through any point of the horizon, to which it is directed.

Beside these, there are several circles, described on the surfaces of both globes; as the *equator*, *ecliptic*, *circles of longitude and right ascension*, *the tropics*, *polar circles*, *parallels of latitude and declination*, on the celestial globe; and on the terrestrial, the *equator*, *ecliptic*, *tropics*, *polar circles*, *parallels of latitude*, *hour circles* or *meridians*, to every 15 degrees; and on some globes, the *spiral rhumbs* flowing from several centres, called *flies*.

In using the globes, keep the graduated side of the meridian towards you, unless the problem requires a different position. With respect to the terrestrial, we are to suppose ourselves situated at a point on its surface; with respect to the celestial, at its centre. The motion of the former represents the real diurnal motion of the earth; that of the latter, the apparent diurnal motion of the heavens.

The following PROBLEMS, as being most useful and entertaining, are selected from a great variety of others, which are easily

solved with a *terrestrial globe*, fitted up with the aforesaid appurtenances.

I. *The latitude of a place being given, to rectify, the globe for that place.*

Let it be required to rectify the globe for the latitude of Boston, 42 degrees 23 minutes north.

Elevate the north pole, till the horizon cut the brazen meridian in 42 23, and the globe is then rectified for the latitude of Boston. Bring Boston to the meridian, and you will find it in the zenith, or directly on the top of the globe. And so of any other place.

II. *To find the latitude and longitude of a place on the globe.*

Bring the given place under that half of the graduated brazen meridian, where the degrees begin at the equator, and under the graduated side of it; then the degree of the meridian over it shows the latitude; and the degree of the equator, under the meridian, shows the longitude.

Thus Boston will be found to lie in about 42 23 north latitude, and 71 west longitude from Greenwich.

III. *To find any place on the globe whose latitude and longitude are given.*

Bring the given longitude, found on the equator, to the meridian, and under the given latitude, found on the meridian, is the place sought.

IV. *To find the distance and bearing of any two given places on the globe.*

Lay the graduated edge of the quadrant of altitude over both places, the beginning or 0 degree being on one of them, and the degrees between them shew their distance; these degrees, multiplied by 60, give the geographical miles, and, by $69\frac{1}{2}$, give the distance in English miles nearly. Observe while the quadrant lies in this position, what rhumb of the nearest fly runs mostly parallel to the edge of the quadrant, and that rhumb shows nearly the bearing required.

V. *To find the sun's place in the ecliptic.*

Look the day of the month on the horizon, and opposite to it, you will find the sign and degree the sun is in that day. Thus on the 25th of March, the sun's place is $4\frac{1}{2}$ degrees in *Aries*. Then look for that sign and degree in the *ecliptic line* marked on the globe, and you will find the sun's place; there fix on a small black patch, so is it prepared for the solution of the following problems.

Note. The earth's place is always in the sign and degree opposite to the sun; thus, when the sun is $4\frac{1}{2}$ degrees in Aries, the earth is $4\frac{1}{2}$ degrees in Libra; and so of any other.

VI. *To find the sun's declination, that is, its distance from the equinoctial line, either northward or southward.*

Bring its place to the meridian; observe what degree of the meridian lies over it, and that is the declination. If the sun lie on the north side of the line, the declination is *north*, but if on the south side the declination is *south*.

Thus on the 20th of April the sun has $11\frac{1}{2}$ degrees of north declination, but on the 26th of October, it has $12\frac{1}{2}$ of south declination.

Note. The greatest declination can never be more, either north or south, than the distance of a tropic from the equator.

VII. *To find where the sun is vertical on any day.*

Bring the sun's place to the meridian, observe its declination, or hold a pen or wire over it; then turn the globe round, and all those countries which pass under the wire, will have the sun vertical, or nearly so, that day at noon. Thus on the 16th day of April, the inhabitants of the north part of *Terra Firma*, *Porto-Bello*, *Philippine Isles*, southern parts of *India*, *Abyssinia*, *Ethiopia* and *Guinea*, have the sun over their heads that day at 12 o'clock.

Note. This appearance can only happen to those who live in the *torrid zone*.

VIII. *To find at what place the sun is vertical at any hour.*

Bring the place, where you are, (suppose Boston) to the meridian; set the index to the given hour; then turn the globe till the index point to the upper 12, or *noon*, look under the degree of declination for that day, and you find the place to which the sun is vertical.

Thus on the first day of May, at half past 8 o'clock, A. M. I find the sun is then vertical at Cape Verd, the western point of Africa.

Note. If it be morning, the globe must be turned from east to west; if in the afternoon, it must be turned from west to east.

IX. *To find at any hour of the day, what o'clock it is at any place.*

Bring the place where you are, to the brass meridian; set the index to the hour, turn the globe till the place you are looking for come under the meridian, and the index will point out the time required.

Thus when it is 10 o'clock in the morning, at Boston, it is 24 minutes past 12 at Olinda in Brazil, and 8 at Mexico in New-Spain; the former being at 35 degrees west longitude, and the latter at 100 degrees west longitude.

Note. By this problem you may likewise see at one view, in distant countries, where the inhabitants are *rising*, where *breakfasting*, *dining*, *drinking tea*, where going to *assemblies*, and where to *bed*.

X. *To find at what hour the sun rises and sets any day in the year at a place, the latitude of which does not exceed 66½ degrees; and also on what point of the compass it rises and sets.*

Rectify the globe for the latitude of the place; bring the sun's place to the meridian, and set the index to 12; then turn the sun's place to the eastern edge of the horizon, and the index will point out the hour of rising; if you bring it to the western edge of the horizon, the index will shew the hour of setting.

Thus on the 10th day of April, the sun rises at half an hour after five o'clock at Boston, and sets half an hour before seven.

Note. In summer the sun rises and sets a little to the *northward* of the east and west points; and in winter a little to the *southward* of them. If, therefore, when the sun's place is brought to the eastern and western edges of the horizon, you look on the horizon directly against the little patch, you will see the point of the compass on which the sun rises and sets that day.

XI. *To find the length of the day and night, at any time of the year, and at any place in a latitude not exceeding 66½ degrees.*

Double the time of the sun's rising that day, and it gives the length of the night; double the time of its setting, and it gives the length of the day.

Thus on the 3d day of May, the sun rises at Boston about 5 o'clock, and sets about seven; therefore the day is about 14 hours long, and the night 10.

XII. *To find the length of the longest and shortest day, at a given place.*

Rectify the globe for that place; if its latitude be north, bring the beginning of Cancer to the meridian; set the index to 12, then bring the same degree of cancer to the east part of the horizon, and the index will show the time of the *sun's* rising, which doubled, gives the length of the shortest night.

If the same degree be brought to the western side, the index will show the time of the sun's setting, which doubled will give the length of the longest day.

If we bring the beginning of Capricorn to the meridian, and proceed in all respects as before, we shall have the length of the longest night and shortest day.

Thus in the great Mogul's dominions, the longest day is 14 hours, and the shortest night 10 hours. The shortest day is 10 hours, and the longest night 14 hours.

At Petersburg, the capital of Russia, the longest day is about 19½ hours, and the shortest night 4½ hours. The shortest day 4½ hours, and the longest night 19½ hours.

Note. In all places near the *equator*, the sun rises and sets at 6 o'clock, through the year. Thence to the *polar circles*, the days increase as the latitude increases; so that at those circles the longest day is 24 hours, and the longest night the same. From the *polar circles*, to the *poles*, the days continue to lengthen into weeks and months; so that at the pole, the sun shines for six months to-

gether in *summer*, and is below the horizon six months in *winter*. *Note* also, that when it is *summer* with the *northern* inhabitants, it is *winter* with the *southern*, and the contrary; and every part of the world partakes of an equal share of light and darkness.

XIII. *To find those inhabitants to whom the sun is this moment rising, setting, in the meridian, and in the opposite.*

Find the sun's place in the ecliptic and raise the pole as much above the horizon as the sun, that day, declines from the equator; then bring the place, where the sun is vertical at that hour, to the brass meridian; so will it then be in the *zenith*. Now see what countries lie in the western edge of the horizon; for to them the sun is *rising*; to those in the eastern side it is *setting*; to those under the upper part of the meridian the time is *noon*; and to those under the lower part of it, it is *midnight*.

Thus at Charlestown (Massachusetts) on the 10th of April, at four o'clock in the morning,

The sun is about rising to	Brazil, South-America.
Setting to	New-Guinea, the Japan Isles, and Kamtschatka.
In the meridian, or it is noon in	Persia, Austria, and Nova-Zembla.
In the opposite meridian, or it is midnight in	The Bay of Good Hope, in the vicinity of King George's Sound.

XIV. *To find the beginning and end of twilight.*

The *twilight* is that faint light, which opens the morning by little and little in the east, before the sun rises; and gradually vanishes in the west, after sunset. It arises from the sun's illuminating the upper part of the atmosphere, and begins when it approaches within about 18 degrees of the eastern horizon, and ends when it has descended about 18 degrees below the western; when dark night commences, and continues till another day dawn.

To find the *beginning of twilight*: rectify the globe; bring the sun's place in the ecliptic to the meridian, and set the index to 12 at noon. Turn the degree of the ecliptic, which is opposite to the sun's place, till it be elevated 18 degrees in the quadrant of altitude above the horizon on the west, so will the index point to the time when twilight begins.

To find when it *ends*: bring the same degree of the ecliptic to 18 degreees of the quadrant on the east side, and the index will point to the time when twilight ends.

Thus on the 10th of April, at Boston, twilight begins at 41 minutes after three in the morning, and ends 19 minutes after eight in the evening. In London they have no total night, but a constant twilight while the sun is beneath the horizon, for two months, from the 20th of May to the 20th of July.

Under the north pole, the twilight ceases when the sun's declination is greater than 18 degrees south, which is from the 15th of

November to the 29th of January; so that, notwithstanding the sun is absent from that part of the world for half a year together, yet total darkness does not continue above 11 weeks; and beside, the moon is above the horizon, at the poles, for a whole fortnight of every month through the year.

XV. *To explain the Phænomena of the Harvest Moon.*

Rectify the globe for any northern latitude, for instance, that of London; and as the moon's orbit makes but a small angle with the ecliptic, let us suppose the ecliptic to represent the moon's orbit. Now, in September, when the sun is in the beginning of *libra*, if the moon be then at its full, it must be in the beginning of *aries*; and as the mean motion of the moon is about 13° in a day, put a patch on the first point of aries, and another 13° beyond it on the ecliptic; bring the former patch to the horizon, and then turn the globe till the other comes to it, and the motion of the index will show about 17°, which is the difference of the times of the moon's rising on two successive nights, because the earth must make so much more than a revolution in time, before it overtakes the moon the next night. This small difference arises from the small angle which the orbit of the moon makes with the horizon. If you continue patches at every 13° till you come to *libra*, you will find the difference of the times of rising will increase up to that point, and there the difference will be about 1h. 17; and this point of the ecliptic, when it rises, makes the greatest angle with the horizon. Hence, when the moon comes to the first point of aries, there will be the least difference of the times of her rising, and this happens at the time of the full moon, when the full moon happens about the 21st of September. That point of the ecliptic which rises at the least angle with the horizon, will be found to set at the greatest, and therefore when there is the least difference in the times of rising, there will be found to be the greatest in the times of setting.

XVI. *To measure the distance from one place to another.*

Only take their distance with a pair of dividers, and apply it to the equinoctial, that will give the number of degrees between them, which, being multiplied by 60, (the number of geographical miles in one degree) gives the exact distance sought: or, extend the quadrant of altitude from one place to another, that will show the number of degrees in like manner, which may be reduced to miles as before.

Thus the distance from London to Madrid is $11\frac{1}{2}$ degrees. From Paris to Constantinople $19\frac{1}{2}$ degrees. From Bristol in England to Boston 45 degrees, which, multiplied by $69\frac{1}{2}$, (the number of English miles in a degree) gives $3127\frac{1}{2}$ miles.

Note. No place can be further from another than 180 degrees, that being half the circumference of the globe, and consequently the greatest distance.

XVII. *To calculate the circumference of the earth, that is, to find the number of miles round it, on supposition of its being a globe.*

A line going round the earth, being supposed to be a circle, is divided, like every other circle, into 360 degrees; and each degree into 60 minutes. Therefore if the length of a degree be multiplied by 360, the product is the circumference. Thus if a degree be $69\frac{1}{2}$ English miles, the circumference is 25,020 miles; if a degree be 69·2 miles, the circumference is 24,912.

Note. Sixty geographical miles make a degree, therefore the circumference is 21,600 geographical miles.

XVIII. *To calculate the diameter of the earth, that is, to find the number of miles through it, on supposition of its being a globe.*

Multiply the circumference by 113, and divide the product by 355, the quotient will be the diameter. Thus, if the circumference be 24,912 miles, the diameter is 7928.

Note. From these dimensions of the earth we may infer,

1st. That if a hole were made through it, and a mill stone should fall in this hole at the rate of one mile a minute, it would be more than $2\frac{3}{4}$ days descending to the centre.

2d. If a man, desirous of travelling round the earth, should go 20 miles a day, he would be nearly $3\frac{1}{2}$ years in completing the journey.

3d. If a bird should fly round the earth in two days, the flight would exceed the rate of 525 miles an hour.

XIX. *To find the superficial content of the earth, it being supposed to be a globe.*

Multiply the circumference by the diameter. Thus if the circumference be 24,912 miles, and the diameter 7928, the superficial content is 197,502,336 square miles.

XX. *To find the solid content of the earth, it being supposed to be a globe.*

Multiply the surface by *one sixth* of the diameter, and it will give the solidity. Thus the surface and diameter being as above, the solidity is 260,966,419,968 solid miles.

After the same manner we may find the surface and solidity, not only of the earth, but also of the whole body of the atmosphere surrounding it, provided it be always and every where of the same height. For, having found its perpendicular height by means of a barometer, or the refraction of the sun's light, double the said height and add the same to the diameter of the earth; then multiply the sum as a new diameter, or the diameter of the earth and atmosphere, by its proper circumference, the product is the upper surface of the atmosphere; multiply this surface by one sixth of the diameter, from the product subtract the solidity of the earth, and there will remain that of the atmosphere.

PROBLEMS SOLVED ON THE CELESTIAL GLOBE.

The equator, ecliptic, tropics, polar circles, horizon and brazen meridian are exactly alike on both globes. Both also are rectified in the same manner.

N. B. The sun's place for any day of the year stands directly against that day on the horizon of the celestial globe, as it does on that of the terrestrial.

The *latitude* and *longitude* of the celestial bodies are reckoned in a very different manner from the latitude and longitude of places on the earth; for all terrestrial latitudes are reckoned from the equator and longitudes from the meridian of some remarkable place, as of London by the British, and of Paris by the French. But the astronomers of all nations agree in reckoning the latitudes of the moon, planets, comets and fixed stars, from the ecliptic; and their longitudes, and that of the sun, from the equinoctial colure, and from that semicircle of it, which cuts the ecliptic at the beginning of aries; and thence eastward, quite round to the same semicircle again. Consequently those stars, which lie between the equinoctial and the northern half of the ecliptic, have north declination, but south latitude; those which lie between the equinoctial and the southern half of the ecliptic have south declination, but north latitude; and all those which lie between the tropics and poles have their declinations and latitudes of the same denomination.

PROB. I. *To find the right ascension and declination of the sun, or any fixed star.*

Bring the sun's place in the ecliptic to the brazen meridian; then that degree in the equinoctial which is cut by the meridian is the sun's *right ascension*; and that degree of the meridian which is over the sun's place is its *declination*. Bring any fixed star to the meridian, and its right ascension will be cut by the meridian in the equinoctial; and the degree of the meridian that stands over it is its declination. So that right ascension and declination on the celestial globe are found in the same manner as longitude and latitude on the terrestrial.

II. *To find the latitude and longitude of a star.*

If the given star be on the north side of the ecliptic, place the 90th degree of the quadrant of altitude on the north pole of the ecliptic, where the twelve semicircles meet, which divide the ecliptic into the twelve signs; but if the star be on the south side of the ecliptic, place the 90th degree of the quadrant on the south pole of the ecliptic: keeping the 90th degree of the quadrant on the proper pole, turn the quadrant about, until its graduated edge cut the star; then the number of degrees on the quadrant, between the ecliptic and the star, is its latitude; and the degrees of the ecliptic cut by the quadrant is the star's longitude, reckoned according to the sign in which the quadrant then is.

III. *To represent the face of the starry firmament, as seen from any given place of the earth, at any hour of the night.*

Rectify the celestial globe for the given latitude, the zenith, and sun's place, in every respect, as taught by the problem for the terrestrial; and turn it about until the index point to the given hour; then the upper hemisphere of the globe will represent the visible half of the heavens for that time: all the stars upon the globe being then in such situations, as exactly correspond to those in the heavens. And if the globe be placed duly north and south, by means of a compass, every star on the globe will point toward the like star in the heavens: by which means the constellations and remarkable stars may be easily known. All those stars, which are in the eastern side of the horizon, are then rising in the eastern part of the heavens; all in the western are setting in the western part; and all those under the upper part of the brazen meridian, between the south point of the horizon and the north pole, are at their greatest altitude, if the latitude of the place be north; but if the latitude be south, those stars which lie under the upper part of the meridian, between the north point of the horizon and the south pole, are at their greatest altitude.

IV. *The latitude of the place and day of the month being given: to find the time when any known star will rise, be on the meridian, or set.*

Having rectified the globe, turn it about until the given star come to the eastern side of the horizon, and the index will show the time of the star's rising; then turn the globe westward, and when the star comes to the brazen meridian, the index will show the time of the star's coming to the meridian of the place; lastly, turn on until the star come to the western side of the horizon, and the index will show the time of the star's setting.

N. B. In northern latitudes those stars, which are less distant from the north pole than the quantity of its elevation above the north point of the horizon, never set; and those, which are less distant from the south pole than the number of degrees by which it is depressed below the horizon, never rise: and *vice versa* in southern latitudes.

V. *To find at what time of the year a given star will be on the meridian at a given hour of the night.*

Bring the given star to the brass meridian, and set the index to the given hour; then turn the globe until the index point to XII. at noon, and the meridian will then cut the sun's place, answering to the day of the year sought: which day may be easily found against the like place of the sun among the signs on the wooden horizon.

METHODS OF FINDING THE LATITUDES AND LONGITUDES OF PLACES FROM CELESTIAL OBSERVATIONS.

What is meant by latitude and longitude has already been sufficiently explained; it remains that we show the methods of finding both by celestial observations.

Of finding the latitude. There are two methods of finding the latitude of any place. The first is by observing the height of the pole above the horizon; the second by discovering the distance of the zenith of the place from the equator. The elevation of the pole is always equal to the latitude; and is thus found. As there is no star, towards which either pole points directly, fix upon some star near the pole. Take its greatest and least height when it is on the meridian. The half of these two sums (proper allowance being made for the refraction of the atmosphere) will be the latitude. The other method is this. The distance of the zenith of any place from the celestial equator, measured in degrees on the meridian, is equal to the latitude. Fix upon some star lying in or near the equator. Observe its zenith distance when it is in the meridian. If it is directly in the equator this will be the latitude. If it is nearer than the equator add its declination to its zenith distance; if farther, deduct its declination from its zenith distance; the sum or difference will be the latitude.

Of finding the longitude. There are three approved methods of discovering the longitude; 1st, By the moon's distance from the sun or a fixed star; 2d, By a time-keeper; 3d, By an eclipse of the moon, or of one of Jupiter's satellites. The last only will be described in this place. By the earth's rotation on its axis in 24 hours, the sun appears to describe, in the same space of time, an apparent circle of 360 degrees in the heavens. The apparent motion of the sun is therefore 15 degrees in an hour. If two places therefore differ 15 degrees in longitude, the sun will pass the meridian of the eastern place 1 hour sooner than the western. The commencement of a lunar eclipse is seen, at the same moment of time, from all places where the eclipse is visible. If then an eclipse of the moon is seen to commence, at one place, at 12 o'clock at night, and, at another place, at 1 o'clock; the places differ 15 degrees in longitude, and the last lies eastward of the first. The nautical almanac, published in London, and calculated for the meridian of Greenwich, contains the exact time when the eclipses of the moon commence at that place. When the time of the commencement of an eclipse at any place has been observed, a comparison of it with the time in the almanac will determine the difference of time between the place and Greenwich. If the hour is later than the hour in the almanac, the place is situated to the east of Greenwich; if earlier, to the west. As 1 hour in time is 15 degrees in motion, so is one minute, 15 minutes, and one second, 15 seconds. This would be the easiest and most accurate method of ascertaining the longitude, if we could determine the precise moment of time when a lunar eclipse commences. But this cannot,

in general, be determined nearer than 1 minute, and often not nearer than 2 or 3 minutes. A variance of 1 minute would make the difference of 15 minutes or miles in longitude; of 2 minutes, 30 minutes; and of 3 minutes, 45 minutes.

This objection does not lie against the method of ascertaining the longitude by the eclipses of Jupiter's satellites. The telescope enables us to determine the precise moment when they are immersed in the shadow of their primary. The hour at the place, therefore, being ascertained, and compared with the hour in the almanac, we are enabled to determine, as before, the exact difference of longitude.

On the equator a degree of longitude is equal to 60 geopraphical miles; and of course a minute on the equator is equal to 1 geographical mile. But as all the meridians cut the equator at right angles and approach nearer and nearer till they cross each other at the poles, it is obvious that the degrees of longitude decrease as you go from the equator to the pole. They do not however decrease uniformly, for a degree of longitude in latitude 60 degrees, is 30 miles, or half as long as a degree on the equator.

The following Table contains the length of a degree of longitude in English *miles* for every degree of latitude.

Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.
0	69·2000	18	65·8134	36	55·9842	54	40·6751	72	21,3842
1	69·1896	19	65·4800	37	55·2659	55	39·6917	73	20·2320
2	69·1578	20	65·0265	38	54·5303	56	38·6959	74	19·0743
3	69·1052	21	64·6037	39	53·7788	57	37·6891	75	17·9103
4	69·0312	22	64·1609	40	53·0100	58	36·6705	76	16·7409
5	68·9363	23	63·6986	41	52·2259	59	35·6408	77	15·5665
6	68·8208	24	63·2177	42	51·4253	60	34·6000	78	14·3874
7	68·6845	25	62·7167	43	50·6094	61	33·5489	79	13·2041
8	68·5267	26	62·1963	44	49·7783	62	32·4878	80	12·0166
9	68·3481	27	61·6579	45	48·9313	63	31·4161	81	10·8250
10	68·1489	28	61·1001	46	48·0705	64	30·3352	82	9·6306
11	67·9288	29	60·52 7	47	47·1944	65	29·2453	83	8·4334
12	67·6880	30	59·9293	48	46·3038	66	28·1464	84	7·2335
13	67·4264	31	59·3162	49	45·3994	67	27·0385	85	6·0315
14	67·1448	32	58·6851	50	44·4811	68	25·9230	86	4·8274
15	66·8424	33	58·0360	51	43·5489	69	24·7992	87	3·6219
16	66·5191	34	57·3696	52	42·6037	70	23·6678	88	2·4151
17	66·1760	35	56·6852	53	41·6453	71	22·5294	89	1·2075

A TABLE

Showing the number of geographical miles contained in a degree of longitude in each parallel of latitude from the equator.

Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles	100th parts of a mile.
0	60	0	23	55	23	46	41	68	69	21	50
1	59	99	24	54	81	47	40	92			
2	59	96				48	40	14	70	20	52
3	59	91	25	54	38	49	39	36	71	19	53
4	59	85	26	53	93				72	18	54
			27	53	46	50	38	57	73	17	54
5	59	77	28	52	97	51	37	76	74	16	53
6	59	67	29	52	47	52	36	94			
7	59	55				53	36	11	75	15	53
8	59	41	30	51	96	54	35	27	76	14	51
9	59	26	31	51	43				77	13	50
			32	50	88	55	34	41	78	12	47
10	59	09	33	50	32	56	33	55	79	11	45
11	58	89	34	49	74	57	32	68			
12	58	68				58	31	79	80	10	42
13	58	46	35	49	15	59	30	90	81	9	38
14	58	22	36	48	54				82	8	34
			37	47	92	60	30	00	83	7	31
15	57	95	38	47	28	61	29	09	84	6	27
16	57	67	39	46	62	62	28	17			
17	57	38				63	27	24	85	5	22
18	57	06	40	45	96	64	26	30	86	4	18
19	56	73	41	45	28				87	3	14
			42	44	58	65	25	35	88	2	09
20	56	39	43	43	88	66	24	40	89	1	05
21	56	01	44	43	16	67	23	44	90	0	00
22	55	63				68	22	47			
			45	42	42						

MAPS, AND THEIR USE.

A map is the representation of some part of the earth's surface, delineated on a plane according to the laws of projection; for as the earth is of a globular form, no part of its spherical surface can be accurately exhibited on a plane.

Maps are either general or particular.

General maps are such as give us a view of an entire hemisphere, or half of the globe, and are projected on the plane of some great circle, which terminates the projected hemisphere, and di-

vides it from the other half of the globe, as the meridian, equator, or the horizon of some place; and from this circle the projection is said to be *meridional*, *equatorial*, or *horizontal*.

Particular maps are such as exhibit a part less than a hemisphere; such as maps of Europe, Asia, Africa, North-America, and South-America; or of particular kingdoms, provinces, countries, or less districts.

There are two methods of projecting the circles in general maps, viz. *stereographic* and *orthographic*. Almost all maps are of the former kind, and are projected on a meridian. In order to form an adequate idea of the construction of maps, we may imagine a globe, of thin glass, on which the great and small circles are delineated as on the terrestrial globe. Suppose both the poles of this glass globe to lie in the horizon, that meridian which is called the equinoctial colure to be coincident with the horizon, and the hemisphere below the horizon to be that which is to be projected. In that case the plane of the equinoctial colure will be the plane of projection. If the eye is now supposed to be placed in that point of the upper hemisphere where the solstitial colure cuts the equator, and straight lines are supposed to pass *from every point* in the surface of the lower hemisphere through the plane of projection, so that they all meet in the eye, it is obvious that every part of the surface of the lower hemisphere would be marked or *projected* on the plane of projection. This is an instance of *stereographic projection*, on the plane of *a meridian*. The map of the whole earth is commonly contained in two circles. The lower hemisphere projected in this manner on the plane of the meridian or colure would appear to the eye in the place supposed exactly like the half of such a map. A new projection obtained by reversing the hemispheres would give the other half of the map. Hence it appears that, in the *stereographic projection*, the eye is placed in the pole of that great circle, whose plane is the plane of projection; and that the hemisphere projected is the hemisphere opposite the eye. If the eye be supposed to be placed at an infinite distance, it is called the *orthographic projection*.

In the stereographic projection, the parts about the middle are contracted, being much less than those nearer the circumference.

All the maps in this treatise, and indeed those in almost all others, are laid down according to the laws of stereographic projection.

Maps differ from the globe in the same manner as a picture does from a statue. The globe truly represents the earth; but a map not more than a plane surface represents one that is spherical. But although the earth can never be exhibited exactly by one map, yet by means of several of them, each containing about 10 or 20 degrees of latitude, the representation will not fall very much short of the globe in exactness; because such maps, if joined together, would form a convex surface nearly as round as the globe itself.

Cardinal Points. The *north* is considered as the upper part of the map; the *south* is at the bottom, opposite to the north; the *east*

is on the right hand, the face being turned to the north; and the *west* on the left hand, opposite to the east. From the top to the bottom are drawn meridians, or *lines of longitude*; and from side to side, *parallels of latitude*. The outmost of the meridians and parallels are marked with degrees of latitude or longitude, by means of which, and the *scale of miles*, which is commonly placed in a corner of the map, the situations, distances, &c. of places may be found as on the artificial globe. Thus to find the distance of two places, suppose Philadelphia and Boston, by the map, we have only to measure the space between them with the compasses, or a piece of thread, and to apply this distance to the scale of miles, which shows that Boston is 286 miles distant in a straight line from Philadelphia. If the places lie directly north or south, east or west, from one another, we have only to observe the degrees on the meridians and parallels, and by reducing these to miles, we obtain the distance without measuring. Rivers are described in maps by black lines, and are wider toward the mouth than toward the head or spring. Mountains are sketched on maps as on a picture. Forests and woods are represented by a kind of shrub; bogs and morasses, by shades; sands and shallows are described by small dots; and roads usually by double lines. Near harbours, the depth of the water is expressed by figures representing fathoms.

When any part of the heavens or earth is said to be on the right or left, we are to understand the expression differently according to the profession of the person who makes use of it; because, according to that, his face is supposed to be turned toward a certain quarter. A geographer is supposed to stand with his face to the north, because the northern part of the world is best known. An astronomer looks toward the south, to observe the celestial bodies as they come to the meridian. The ancient augurs, in observing the flight of birds, looked toward the east; while the poets look westward toward the *Fortunate Isles*. In books of geography, therefore, by the right hand we must understand the east; in those of astronomy, the west; in such as relate to augury, the south; and in the writings of poets, the north.

GEOGRAPHICAL THEOREMS, OR PROPOSITIONS.

These propositions, which are deducible from the nature of the foregoing work, the learner will find to be so many *real truths*, if he properly applies and contemplates them upon the globe.

I. Places lying under the equator have no latitude; because the reckoning of latitude begins at the equator.

II. Under the *poles* of the world the latitude is greatest, or just 90 degrees.

III. In going from the *equator* toward the *poles* the latitude increases; but in going toward the *equator*, the latitude decreases.

IV. The *latitude* of any place is equal to the height of the pole in degrees above the horizon.

V. Places lying under that meridian, which is accounted the first, have *no longitude ;* because the reckoning of longitude begins at that meridian.

VI. Those places have the greatest longitude which lie under the meridian, opposite to that where longitude begins.

VII. The longitude of any place cannot be greater than 180 degrees eastward or westward ; because that is the meridian opposite to that whence longitude is reckoned.

VIII. No two places can be distant from one another above 180 degrees ; because 180 degrees is half the circumference of a great circle of the globe.

IX. All the inhabitants of the earth enjoy the *sun's light* an equal length of time, and are equally long without it.

X. Under the *equinoctial*, the days and nights are always equal to 12 hours ; but not exactly so in any other place.

XI. In all places between the equator and the poles, the days and nights are never equal but at the time of the equinoxes, in March and September.

XII. The difference between the lengths of the days and nights in any place, on either *side* of the *equator*, is greater, in proportion as the latitude of the place is greater.

XIII. In places exactly under the *polar circles*, the sun appears, when at the *summer tropic*, one whole day without setting ; and disappears one whole day when in the *winter tropic :* at other times it daily rises and sets as elsewhere.

XIV. At all places in the *frigid zones*, the sun appears every year without setting for a certain number of days ; and disappears for about the same space of time. And the nearer to or further from the pole those places are, the longer or shorter is its appearance and absence.

XV. To all places under the same semicircle of the meridian, whether on the north or south side of the equator, it is *noon* or *midnight*, or any other hour of the day or night, at the same time precisely.

XVI. Places lying eastward of any other place have their *morning*, *noon*, and *evening* hours earlier than at that place, by one hour for every 15 degrees it lies eastward of it.

XVII. Places lying westward of any other place have their *morning*, *noon*, and *evening* hours later than at that place, by one hour for every 15 degrees it lies westward of it.

XVIII. A person in going *eastward* quite round the globe will gain one day in his reckoning of time with respect to the account kept at the place whence he departed ; but if his circuit be made *westward*, he will lose one day with respect to the account kept at that place.

XIX. Two persons, setting out at the same time from a place, to make the circuit of the globe, one going *eastward* the other *westward*, will, on their return, differ in their account of time by two entire days.

XX. To all places within the torrid zone, the sun is *vertical*, i. e. passes over the heads of the inhabitants, *twice* a year. To those under the *tropics*, once: but it is never vertical to those in the *temperate* or *frigid zones*.

XXI. People who live to the north of the torrid zone see the sun due *south* at noon; and those who live to the south of the torrid zone see the sun due *north* at noon.

XXII. Those who see the sun toward the *north*, have their shadows projected *southward*; but those who see the sun toward the *south*, have their shadows projected *northward*.

XXIII. The nearer the sun is to the zenith of any person, the shorter is the shadow at noon; but the further from the *zenith* at noon the longer is the shadow; the shadow is always opposite to the sun; and those who have the sun in their zenith, i. e. directly over their heads, are said to have no [length of] shadow.

XXIV. In all places situated in a *parallel sphere*, i. e. at or very near the *poles*, the sun's daily motion is *parallel*, or nearly so, to the respective horizons of such places.

XXV. In every place situated in a *right sphere*, i. e. at or near the equator, the sun's daily motion is *perpendicular*, or nearly so, to the horizon of such places.

XXVI. In all places situated in an *oblique sphere*, i. e. lying between the equator and the poles, the circle of the sun's daily motion is always oblique to the horizon of such place, or cuts it at unequal angles.

XXVII. On the days of the *equinoxes* only, that is about the 20th of March and 23d of September, the sun rises exactly in the *east* point of the horizon, and sets in the *west* point, to every place on the earth.

XXVIII. To places in *north latitude*, the sun rises toward the *north* of *east* and sets toward the *north* of *west*, from the vernal to the *autumnal* equinox; and rises toward the *south* of *east*, and sets toward the *south* of *west*, from the time of the *autumnal equinox* to that of the *vernal*.

Lastly. In all places of the torrid zone, the morning and evening twilight is least; in the two frigid zones it is greatest; and in the temperate zones the twilight is a medium between those extremes.

ON THE TEMPERATURE OF DIFFERENT PARTS OF THE EARTH.

The presence of the sun is one of the principal sources of heat, and its absence the cause of cold; and were these the only sources of heat and cold, in the same parallel of latitude, there would be the same degree of heat or cold at the same season; but this is found to be contrary to matter of fact; the temperature of the eastern coast of North-America is much colder than the western coast of Europe, under the same latitude. Very hot days are frequently felt in the coldest climates; and very cold weather, even

perpetual snow, is found in countries under the equator. We must therefore seek for other causes of heat and cold, and these must evidently be partly local.

One great source of heat is from the earth; whether this arises from any central fire, or from a mass of heat diffused through the earth, it is not perhaps easy to say; the latter cause is perhaps the most probable; and in this case, the heat which is thus gradually lost is renewed again by the sun. This heat, imparted from the earth to the atmosphere, tends greatly to moderate the severity of the winter's cold. It is found by observation, that the same degree of heat resides in all subterraneous places at the same depth, varying a little at different depths, but is never less than 36 of FAHRENHEIT'S thermometer. There is however an exception to this in mines, where there is probably some chemical operations going forward. Mr. KIRWAN, in his *Estimate of the Temperature of different Latitudes*, and to whom we are principally indebted for what we shall here give upon this subject, observes, that at 80 or 90 feet (if this depth have any communication with the open air, and perhaps, at a much less depth, if there be no such communication) the temperature of the earth varies very little, and generally approaches to the *mean* annual heat. Thus the temperature of springs is nearly the same as the mean annual temperature, and varies very little in different seasons. The temperature of the cave at the observatory at Paris is about 53½ degrees, and varies about half a degree in very cold years; its depth is about 90 feet. The internal heat of the earth in our climate is always above 40, and therefore the snow generally begins to melt first at the bottom. The next source of heat is the condensation of vapor. It is well known that vapor contains a great quantity of heat, which produces no other effect, but that of making it assume an aerial, expanded state, until the vapor is condensed into a liquid; during which condensation a certain quantity of heat escapes, and warms the surrounding atmosphere. This condensation is frequently formed by the attraction of an electrical cloud, and hence arises the great sultriness which we frequently experience before rain, and particularly before a thunder storm.

As the earth is one of the great sources of heat, warming the surrounding air, distance from the earth must be a source of cold; and thus we find that as you ascend in the atmosphere, the cold increases. In the vicinity of Paris, the temperature of the earth being 47°, at the estimated height of 11084 feet it was found to be 21°, or 11° below congelation, by M. CHARLES, who ascended in a balloon. And Lord MULGRAVE, at the bottom of Hacklyt Hill, lat. 80, found the temperature of the air 50°; but on the top, at the height of 1503 feet, only 42°. Hence we find, that the highest mountains, even under the equator, have their tops continually covered with snow. Mr. BOUGUER found the cold of Pinchina, one of the Cordelieres, immediately under the line, to extend from 7° to 9° below the freezing point every morning before sun-rise; and hence at a certain height, which varies in almost every latitude, it constantly freezes at night all the year round, though in the warm

climates it thaws to some degree the next day. This height he calls the *lower term of congelation:* between the tropics he places it at the height of 15577 feet *English* measure. The next great source of cold is *evaporation.* The same cause which makes the condensation of vapor a source of heat, makes evaporation the source of cold; as it absorbs the fire in the latter instance, which it gives out in the former: the heat thus absorbed is called *latent* heat, it producing, in that state, no sensation of warmth. At a certain height above the lower term of congelation it never freezes, not because the cold decreases, but because the vapours do not ascend so high; this height Mr. BOUGUER calls the *upper term of congelation,* and under the equator he fixes it at the height of 28000 feet. Mr. KIRWAN has given us the following *mean* height of the *upper* and *lower* terms of congelation, for the latitude of every five degrees, in *feet.*

Lat.	Alt. *lower* Term.	Alt. *upper* Term.	Lat.	Alt. *lower* Term.	Alt. *upper* Term.
0°	15577	28000	45°	7658	13730
5	15457	27784	50	6260	11253
10	15067	27084	55	4912	8830
15	14498	26061	60	3684	6546
20	13719	24661	65	2516	4676
25	13030	23423	70	1557	2809
30	11592	20838	75	748	1346
35	10664	19169	80	120	206
40	9016	16207			

Sometimes the temperature of the upper air is higher than that of the lower air, particularly when a large mass of vapors is condensed by electrical agency; for no part of the heat given out by that cause being lost by communication with air much colder, that which surrounds the vapors so condensed, must be heated to a considerable degree. The clouds, by absorbing the sun's rays, are more heated than the clear air would be. These, and other circumstances, render the true height of the terms of congelation at any time, subject to considerable uncertainty.

The clearing away of woods lessens the vapors, and consequently diminishes the quantity of rain, and increases the temperature. Several parishes in Jamaica which used to produce fine crops of sugar canes, are now dry for nine months in a year, and are turned into cattle-pens, through the clearing away of the woods. Hence, water is most plentiful in those countries where woods abound, and the best springs are there found. In America, since the woods in the neighbourhood of their towns have been cut down, many streams have become dry; and others have been reduced so low, as to cause great interruptions to the miller.

Of evaporation, the following facts may be observed. 1. That in our climates, evaporation is about four times as great from the 21st of March to the 21st of September, as from the 21st of September to the 21st of March.

2. That, other circumstances being the same, it is greater in proportion as the difference between the temperature of the air and that of the evaporating surface is greater; and so much the smaller, as the difference is smaller; and therefore smallest, when the temperature of the air and evaporating liquor are equal. The former part of this proposition however requires some restriction; for if air be more than 15 degrees colder than the evaporating surface, there is scarce any evaporation; but on the contrary, it deposites its moisture on the surface of the liquor.

3. The degree of cold produced by evaporation, is always much greater when the air is warmer than the evaporating surface, than that which is produced when the surface is warmer than the air. Hence, warm winds, as the *Sirocco* and *Harmatan*, are more drying than cold winds.

4. Evaporation is more copious when the air is less loaded with vapors, and is therefore greatly promoted by cold winds flowing into warmer countries.

5. Evaporation is greatly increased by a current of air or wind flowing over the evaporating surface, because unsaturated air is constantly brought into contact with it. Hence, calm days are hottest, as has commonly been remarked.

6. Tracts of land covered with trees or vegetables emit more vapor than the same space covered with water. Mr. WILLIAMS (*Philadelphia Transactions*) found this quantity to amount to $\frac{1}{3}$ more. Hence the air about a wood or forest is made colder by evaporation from trees and shrubs, while the plants themselves are kept in a more moderate heat, and secured from the burning heat of the sun by the vapors perspired from the leaves. Thus, we find the shade of vegetables more effectual to cool us, as well as more agreeable, than the shade from rocks and buildings.

The heat and cold of different countries are transmitted from one to the other, by the medium of winds.

From what has been observed it is manifest, that some situations are better fitted to receive or communicate heat, than others; thus, high and mountainous situations being nearer to the source of cold than lower situations; and countries covered with woods, as they prevent the access of the sun's rays to the earth, or to the snow which they may conceal, and present more numerous evaporating surfaces, must be colder than open countries, though situated in the same latitude. And since all tracts of land present infinite varieties of situation, uniform results cannot here be expected. Mr. KIRWAN observes therefore, that it is on water only that we must seek for a standard situation with which to compare the temperature of other situations. Now the globe contains, properly speaking, but two great tracts of water, the Atlantic ocean, and the Pacific ocean; which may each be divided into north and south, as they lie on the northern or southern side of the equator. In this

tract of water, he chose that situation for a standard which recommends itself most by its simplicity, and freedom from any but the most permanent causes of alteration of temperature; viz. that part of the Atlantic which lies between 80° north and 45° south latitude, and extending southward as far as the gulf stream, and to within a few leagues of the coast of America; and that part of the Pacific ocean which lies between 45° north and 40° south latitude, and from 20° to 275° east longitude. Within this space, the *mean* annual temperature will be found as expressed by the following table. The temperatures beyond 80° latitude are added, though not strictly within the standard.

A Table of the *mean* Annual Temperature of the standard situation, in every degree of Latitude.

Lat.	Temp.	Lat.	Temp.	Lat.	Temp.
0°	84	33°	68·3	62°	42·7
5	83·6	34	67·4	63	41·9
6	83·4	35	66·6	64	41·2
7	83·2	36	65·7	65	40·4
8	82·9	37	64·8	66	39·7
9	82·7	38	63·9	67	39·1
10	82·3	39	63	68	38·4
11	82	40	62	69	37·8
12	81·7	41	61·2	70	37·2
13	81·3	42	60·3	71	36·6
14	80·8	43	59·4	72	36
15	80·4	44	58·4	73	35·5
16	79·9	45	57·5	74	35
17	79·4	46	56·4	75	34·5
18	78·9	47	55·6	76	34·1
19	78·3	48	54·7	77	33·7
20	77·8	49	53·8	78	33·2
21	77·2	50	52·9	79	32·9
22	76·5	51	52·4	80	32·6
23	75·9	52	51·1	81	32·2
24	75·4	53	50·2	82	32
25	74·5	54	49·2	83	31·7
26	73·8	55	48·4	84	31·5
27	72·8	56	47·5	85	31·4
28	72·3	57	46·7	86	31·2
29	71·5	58	45·8	87	31·14
30	70·7	59	45·1	88	31·10
31	69·9	60	44·3	89	31·04
32	69·1	61	43·5	90	31

The rule by which this table has been computed, was given by the famous astronomer Tobias Mayer of Gottingen, and is

as follows; it was constructed from knowing the mean annual temperatures of two latitudes. Let s be the sine of the latitude; then the mean annual temperature will be $84 - 53 \times s^2$; that is, *from 84 subtract 53 multiplied into the square of the sine of the latitude, and the remainder is the mean annual temperature.*

The temperatures of different years differ very little near the equator, but they differ more and more as you approach the poles.

It scarce ever freezes in latitudes under 35°, except in high situations; and it scarce ever hails in latitudes higher than 60°.

In latitudes between 35° and 60°, in places adjacent to the sea, it generally thaws when the sun's altitude is 40° or upwards; and seldom begins to freeze, until the sun's meridian altitude is below 40°.

The greatest cold in all latitudes in our hemisphere is generally about half an hour before sun-rise. The greatest heat in all latitudes between 60° and 45° is about half past 2 o'clock in the afternoon; between latitudes 45° and 35°, about 2 o'clock; between latitudes 35° and 25°, about half past 1 o'clock; and between latitude 25° and the equator, about 1 o'clock. On sea, the difference between the heat of day and night, is not so great as on land, particularly in low latitudes.

In all latitudes, January is the coldest month. July is the warmest month in all latitudes above 48°; but in lower latitudes, August is the warmest. The temperature of April approaches more nearly to the mean annual temperature, than any other month.

In the highest latitudes, we often meet with an heat of 75° or 80°; and in latitudes 59° and 60° the heat of July is frequently greater than in latitude 51°.

All countries lying to the windward of high mountains, or extensive forests, are warmer than those to the leeward in the same latitude.

The vicinity to the sea is another circumstance which affects the temperature of a climate; as it moderates the heat from the land, and brings the atmosphere down to a standard best fitted to the human constitution. In our hemisphere, countries which lie to the south of any sea, are warmer than those that have the sea to the south of them, because the winds that should cool them in winter are mitigated by passing over the sea; whereas those which are northward of the sea, are cooler in summer by the breezes from it. A northern or southern bearing of the sea, renders a country warmer than an eastern or western bearing.

Islands participate more of temperature arising from the sea, and are therefore warmer than continents.

The soils of large tracts of land have their share in influencing the temperature of the country: Thus, stones and sand heat and cool more readily, and to a greater degree, than mould; hence, the violent heats in the sandy deserts of Arabia and Africa; and the intense cold of Terra del Fuego, and other stony countries in cold latitudes.

Vegetables considerably affect the temperature of a climate. Wooded countries are much colder than those which are open and cultivated.

Every habitable latitude enjoys a heat of 60° at least, for two months, and this is necessary for the growth and maturity of corn. The quickness of vegetation in the higher latitudes proceeds from the time the sun is above the horizon. Rain is but little wanted, as the earth is sufficiently moistened by the liquefaction of the snow that covers it during the winter. In this we cannot sufficiently admire the wise disposition of Providence.

It is owing to the same provident hand that the globe of the earth is intersected with seas and mountains, in a manner, that seems, on its first appearance, altogether irregular and fortuitous; presenting to the eye of ignorance, the view of an immense ruin: but when the effects of these seeming irregularities on the earth are carefully inspected, they are found most beneficial, and even necessary to the welfare of its inhabitants; for to say nothing of the advantages of trade and commerce, which could not exist without seas, we have seen that it is by their vicinity, that the cold of higher latitudes is moderated, and the heat of the lower. It is by the want of seas, that the interior parts of Asia, as Siberia and Great Tartary, as well as those of Africa, are rendered almost uninhabitable; a circumstance which furnishes a strong prejudice against the opinion of those, who think those countries were the original habitations of man. In the same manner, mountains are necessary; not only as the reservoirs of rivers, but as a defence against the violence of heat in the warm latitudes; without the Alps, Pyrences, Apennines, the mountains of Dauphine, Auvergne, &c. Italy, Spain and France would be deprived of the mild temperature which they now enjoy. Without the Balgate Hills, or Indian Apennine, India would have been a desert. Hence, Jamaica, St. Domingo, Sumatra, and most other islands between the tropics, are furnished with mountains, from which the breezes proceed which refresh them.

The annual heat of London and Paris is nearly the same; but from the beginning of April to the end of October, the heat is greater at Paris than at London. Hence, grapes arrive at greater perfection in the neighborhood of Paris than about London.

The following table contains a comparison of the temperature of London with several other places. The first column contains the place; the second, the annual temperature; the third, the temperature of January, that being the coldest month; and the fourth, the temperature of July; that at London, as the standard, being estimated at 1000. The degree of *cold* is estimated in the third column, and the degree of *heat* in the fourth and second.

Places.	An. Temp.	Temp. Jan.	Temp. July.
London - - -	1000	1000	1000
Paris - - - -	1028	1040	1037
Edinburgh - - -	923	1040	914
Berlin - - -	942		
Stockholm - - -	811	1583	967
Petersburgh - - -	746	3590	1008
Vienna - - -	987	1305	1037
Pekin - - - -	1067	1730	1283
Bourdeaux - - -	1090	925	1139
Montpelier - - -	1170	850	1196
Madeira - - -	1319	559	1128
Spanish Town, in Jamaica	1557		
Madras - - -	1565	491	1349

At London, by a mean of the observations made at the Royal Society from 1772 to 1780, it appears that the mean annual temperature is 51°·9, or in whole numbers, 52°; and the monthly temperature is as follows:

January - - -	35°·9	July - - -	66°·3
February - -	42·3	August - - -	65·85
March - - -	46·4	September - -	59·63
April - - -	49·9	October - -	52·81
May - - -	56·61	November - -	44·44
June - - -	63·22	December - -	41·04

The greatest usual cold is 20°, and happens in January; the greatest usual heat is 81°, and happens generally in July.

The limits of the annual variation are 2°·5, that is, 1° above, and 1°·5 below the mean.

The greatest variations of the mean temperature of the same month in different years, are as follows:

January - - -	6°	July - - - -	2°
February - - -	5	August - - -	2
March - - -	4	September - -	3·5
April - - -	3	October - - -	4
May - - - -	2·5	November - -	4
June - - - -	2	December - -	3

Hence it appears, that the temperatures of the summers differ much less than those of the winter.

The most usual variations of temperature within the space of 24 hours in every month, are,

January - - -	6°	July - - - -	10°
February - - -	8	August - - -	15
March - - -	20	September - -	18
April - - -	18	October - - -	14
May - - - -	14	November - -	9
June - - - -	12	December - - -	6

At Petersburgh, latitude 59 56, longitude 30 24 E. the mean annual temperature is 38°·8, from the mean of 6 years. The greatest cold observed was that at which mercury freezes, that is 39° below 0°; but the greatest mean degree of cold for several years was 25° below 0°. The greatest summer heat, on a mean, is 79°, yet once it amounted to 94°. It scarce ever hails at this place.

In latitude 79 50, Lord Mulgrave observed the greatest heat for two days to be 58°, and the least 46°. Mr. Martin observes, that the weather in the polar regions is very unsteady: one hour it blows a violent storm, and in the next there is a dead calm; neither does it blow long in any one point, but sometimes from every point within 24 hours. After a calm, the north wind springs up first; the sky is seldom perfectly clear, and storms are much more frequent than in lower latitudes.

In Europe, unusual cold in summer may arise, either from a long continuance of easterly or northerly winds, or from frequent and heavy rains, which are followed by great evaporations, or from a long continuance of cloudy weather in June and July, which prevents the earth from receiving its proper degree of heat.

The causes of unusual cold in winter may be these. 1st. *Unusual cold in the preceding summer.* For the heat in the winter being in a great measure derived from the earth, if this be deprived of its usual heat, the want of it must be perceived in winter. The cold of January, 1709, was the severest long known in Europe; and Mr. Derham remarked, that the preceding June was so cold, that his thermometer was near the freezing point on the 12th of that month, and the quantity of rain was much greater than usual. Mr. Wolf made the same observation in Germany. 2dly. *Heavy rains followed by easterly or northerly winds.* This circumstance produces great cold at any time, on account of the great evaporation which then takes place by these dry winds. It took place in October, 1708, as Mr. Wolf observed; and an intense cold immediately followed. 3dly. *Westerly or southerly currents, in the upper regions of the atmosphere, whilst easterly or northerly winds prevail in the lower.* For the warm currents are deprived of their moisture, by the cold of the superior regions; and this descending in the form of snow, cools the inferior strata below their usual temperature: this circumstance also took place in 1709, when the cold was greatest. 4thly. *The arrival of Siberian or American winds.* Siberia is 2800 miles east of London; but according to Mr. Smeaton's computation, a common high wind moves at the rate of 35 miles in an hour, and therefore may pass to us in 3 days from Siberia, and preserve much of its original degree of cold. The winds from America may also arrive in a few days; but their rigor will be abated by passing over the sea; but if the sea have been previously cooled by northerly winds, the westerly winds may prove very cold. Mr. Derham, on comparing his journals with those of Mr. Robie in New England, found, that after a few days, the American winds passed into England. The wind in 1784 was equally severe in America, as in Europe. 5thly. *The fall of a superior stratum of the atmosphere.* This will happen when a cold wind in the upper regions of the atmo-

sphere passes over a country, the lower strata of whose atmosphere are lighter; and hence a low state of the barometer generally precedes such extraordinary cold. It is probably for this reason, that Holland oftener experiences a greater degree of cold, than other countries under higher latitudes; for being a moist country, its atmosphere abounds more in vapors, which renders it specifically lighter; thus, during the great cold of January, 1783, the barometer was lower than it had been known to be for 50 years before, during that month: and Muschenbrock remarked, that in winter, when the mercury in the barometer descends, the cold increases.

Land is capable of receiving much more either heat or cold than water. In winter when the surface of water is much cooled by contact with the colder air, the deeper and warmer water at the bottom, being specifically lighter, rises and tempers the top, and as the colder water constantly descends during the winter, in the following summer the surface is generally warmer than at greater depths; whereas in winter it is colder; hence it has been remarked, that the sea is always colder in summer and warmer in winter, after a storm, the water at great depths being mixed with that at the surface. Of the following observations, the three first were made by Lord Mulgrave, the three next by Wales and Bayley, and the other by Mr. Bladh. The third column expresses the heat of the air over the surface of the sea; the fourth expresses the depth of the sea in *feet*; the fifth expresses the heat of the sea at that depth, and the sixth expresses the heat of the sea at the surface.

Latitude.	Time.	Heat of Air.	Depth.	Heat of Sea.	Ht. of Surf.
67° N.	June 20	48·5	4680	26	
78 N.	30	40·5	708	31	
69 N.	Aug. 31	59·5	4038	32	
0	Sept. 5	75·5	510	66	74
24 S.	26	72·5	480	70	70
34 44′ S.	Oct. 11	60·5	600	57	59
57 N.	Jan. 8	46	6	40	37
	10	43·6	50	43·6	43·6
55 40′ N.	20	47	110	51·5	40
39 30 N.	28	53	110	59	59
2 55 N.	Feb. 25	81	58	81	81
2 50 N.	26	83	110	81	84·5

As the water in the high northern and southern latitudes, is, by cold, rendered heavier than that in lower warm latitudes, hence arises a perpetual current from the poles to the equator, which sometimes carries down large masses of ice, which cool the air to a great extent. Inland seas of great extent have been frozen in very severe winters. In 1668, the Baltic was so firmly frozen, that Charles XI. of Sweden, carried his whole army over it; and the Adriatic was frozen in 1709. The temperatures of land and water

differ more in winter than in summer; for in winter, inland countries, from lat. 49° to 70° are frequently cooled down to 40°, 50°, and some to 70° below the freezing point; whereas, the sea below lat. 76° is not colder than 4° below that point in the northern hemisphere, except some narrow seas in the north Pacific ocean; but in summer, no considerable extent of land is heated to more than 15° or 20° above the temperature of the sea, stony and sandy deserts excepted.

The temperatures of the smaller seas, in general, if not surrounded with high mountains, are a few degrees warmer in summer, and colder in winter, than the standard ocean; in high latitudes they are frequently frozen.

The White sea is frozen in the winter.

The gulf of Bothnia is in a great measure frozen in winter; but in summer it is sometimes heated to 70°. Its general temperature in July is from 48° to 56°.

The German sea is about 3° colder in winter and 5° warmer in summer, than the Atlantic.

The Mediterranean sea is, for the greater part of its extent, warmer both summer and winter, than the Atlantic, which, for that reason, flows into it. It is sometimes frozen in the neighborhood of Venice.

The Black sea is colder than the Mediterranean, and flows into it.

The Caspian sea is situated in the vicinity of high mountains, and is in a great measure frozen in winter. Its level is said, by Pallas, to be lower than the ocean.

Some idea may be formed what altitudes on the surface of the globe are accessible to men, by considering the height above the sea of the inferior line of perpetual snow. In the middle of the torrid zone, it appears, from Mr. Bouguer's observations, to be elevated 5201 yards, and 4476 about the tropics. In middle latitudes there is constant snow at the height of 3300 yards. In lat. 80° north, Lord Mulgrave found the inferior line of snow to be at the height of 400 yards: whence we may conclude, that at the poles, there is constant snow upon the surface of the earth.

WINDS.

Air is a fine, invisible fluid, surrounding the earth, and extending some miles above its surface; and that collection of it, together with the bodies it contains, circumscribing the earth, is called the *atmosphere*.

Few natural bodies have been the subject of more experiments than the air; and from these it appears, that it is both heavy and elastic. By its gravity it is capable of supporting all lighter bodies, as, smoke, vapors, odors, &c. And by its elasticity, a small volume of air is capable of expanding itself in such a manner as to fill a very large space, and also of being compressed into a much smaller compass. Cold has the property of compressing air, and

heat of expanding it. But as soon as the cause of expansion or compression is removed, it will return to its natural state. Hence, if an alteration be made in any part of the atmosphere, either by heat, or cold, the neighboring parts will be put in commotion by the effort which the air always makes to recover its former state.

Wind is nothing more than a stream or current of air, capable of very different degrees of velocity, and generally blowing from one point of the horizon to its opposite. The horizon, like all other circles, is divided into 360 degrees; but as these divisions are too minute for common use, it is also divided into 32 equal parts, called *rhumbs*, or *points of the compass*. Winds are denominated east, west, north, south, &c. according to the points of the compass on which they blow; and, with respect to their direction, are distributed into three classes, viz. general, periodical, and variable.

General winds are such as blow always nearly in the same direction. They are found to prevail in the Atlantic and Pacific oceans between the latitudes of about 28 degrees north and south; blowing generally at the equator from the east, on the north side of it between the north and east, and more northerly the nearer the northern limit; and on the south side, between the south and east, and more southerly the nearer the southern limit, and are also called *tropical* or *general trade winds*.

Winds mostly originate in variations of the temperature of the atmosphere. An increase of heat in any part rarefies the air, and, as the resistance is least above, produces an ascending current, which diffuses itself at some greater altitude where the density is less, and at the same time the ambient colder air rushes to the rarefied part to restore the equilibrium, and thus winds blow toward it on every side. On the contrary, cold condenses the air; and a partial condensation produces winds blowing in every direction from the condensed part.

The superior degree of heat, near the equator, produced by the action of the sun, in connexion with the earth's rotation on its axis, may be considered as the cause of the general winds. For, in consequence of greater heat, the air becomes more rarefied, and currents flow thither from the northern and southern regions, that is, a north wind is produced on the north side of the equator, and a south wind on the south side. And, since the velocity of the diurnal motion is greater at the equator than in any parallel of latitude, and since the air, having this motion in common with the earth, when at rest with respect to the earth, is proportionally swifter at the equator; it follows, that a current moving from the north or south toward the equator, having less velocity toward the east than the equatorial region, will have a relative motion toward the west, that is, it will become an easterly wind, blowing between north and east on the north side of the equator, and between south and east on the south side.

Periodical winds are such as blow nearly in certain directions during certain periods of time. The *monsoons* or *shifting trade winds*, and the *land and sea breezes*, are of this kind. The monsoons blow six months in one direction, and then six months in the oppo-

site, the changes happening about the times of the equinoxes. These winds chiefly prevail in some parts of the Indian Ocean. The land and sea breezes are winds, which blow from the land in the night, and from the sea in the day time, changing their direction every 12 hours. They obtain in some degree on the coast of every country, but are most remarkable between the tropics. At the islands between the tropics, the sea breeze begins about nine o'clock in the morning, and continues till about nine in the evening; a land breeze then succeeds and continues till about nine the next morning.

The periodical winds arise from the difference in the temperature of the air over land, and of that over water, occasioned by their not acquiring or losing equal degrees of heat in a given time. The Indian ocean is bounded on the east and north by part of Africa, Arabia, Persia, and India, the shores of which are situated within the limits of the trade winds; and the sun, after the vernal equinox, renders the air above these extensive tracts of land hotter than that above the adjacent sea, and thus produces a wind, which soon begins to blow toward the land. This direction of the wind continues from April to October, when the sun having passed to the south side of the equator, the air over the land toward the north becomes colder than that over the water, the direction of the wind is inverted, and it blows on the opposite point the remaining six months of the year. And with respect to the land and sea breezes, the effect of the sun in heating the air over the land in the day time being greater than the heat it produces in the air over the adjacent seas, sea breezes arise; and in the night, the air, which before was hottest, becomes and continues coldest, and a land breeze is the consequence.

Variable winds are those which are subject to no regularity of duration or change. All the winds in latitudes higher than 40° are of this kind.

Variable, as well as periodical, winds are principally owing, without doubt, to the different temperatures of air incumbent on land and water.

Various circumstances operate in producing disturbances and variations in the general and periodical winds. Different kinds of soil diversify the temperature of the incumbent air. Sometimes chains of mountains form a kind of eddy. In extensive seas and oceans, the general trade winds are subject to few variations, and to fewer in the Pacific than in the Atlantic ocean, the latter containing many islands, and being bounded by large continents.

Between 28° and 40° of south latitude, and between 30° of west and 100° of east longitude from London, the wind is by far the greater part of the time between northwest and southwest; and between the northern limit of the general trade wind, and the parallel of 40° in the Atlantic ocean, the westerly winds prevail, but with less certainty.

Such winds are to be expected in consequence of the great quantity of air that ascends from the most rarefied part near the equator, and diffuses itself toward the north and south in upper currents,

which, when sufficiently cooled and condensed, will descend, and probably become westerly winds between the limits of the general trade winds and the parallels of 40 degrees.

Between the fourth and tenth degrees of north latitude, and between the longitudes of Cape Verd and the easternmost of the Cape de Verd Islands, is a tract of sea, which seems to be condemned to perpetual calms, attended with dreadful thunder and lightnings, and such frequent rains, that it has acquired the name of the *Rains*. This phenomenon seems to be caused by the great rarefaction of the air on the neighboring coast, which causes a perpetual current of air to set in from the westward, and this current meeting here with the general trade wind, the two currents balance each other, and cause a general calm; while the vapors carried thither by each wind, meeting and condensing, occasion these frequent deluges of rain.

Dr. Derham, from repeated observations upon the motion of light, downy feathers, found that the greatest velocity of the wind was not above 60 miles in an hour. But Mr. Bruce justly observes, that such experiments must be subject to great inaccuracy, as the feathers cannot proceed in a straight line; he therefore estimates the velocity of winds by means of the shadow of a cloud over the earth, by which he found, that, in a great storm, the wind moves 63 miles in an hour; in a fresh gale, 21 miles an hour; and in a small breeze, 10 miles an hour. Mr. Rouse makes the velocity of a hurricane 100 miles an hour.

TIDES.

By the term *tide* is meant the regular alternate rising and falling of the water in the seas and rivers. The phenomena of the tides occasioned a variety of opinions among the ancient philosophers, and the cause was considered as one of the greatest mysteries in nature. It remained in obscurity till the latter end of the 16th century, when Sir Isaac Newton clearly pointed it out, and showed the agreement of its effects with the observed phenomena.

A heavy body, being thrown up in the air, falls again to the earth in a direction perpendicular to its surface, or in a line tending to its centre. The cause of the body's falling is a species of attraction, called *gravity* or *gravitation*. This principle operates not only between the earth and all bodies near its surface, but also between all the bodies which compose the solar system, and probably between all the bodies and systems of the universe. And it is abundantly proved by experiment and observation, that the force of gravity is inversely as the squares of the distances of the bodies from one another, that is, the force decreases in the same ratio as the squares of the distances increase, and *vice versa*.

The flowing and ebbing of the sea are to be attributed to the attraction of the sun and moon; but principally to that of the moon on account of its less distance from the earth.

The attractive force of the moon varies at different distances, being greater at a small distance and smaller at a great distance. Its

power is found to diminish as the squares of the distances increase. Thus, if at the distance of 10,000 miles, the attractive force be considered as 4, at the distance of 20,000 it will be only 1. Hence the waters on the side of the earth directly under the moon are more attracted by the moon than the central parts of the earth, because they are nearer to the moon, and the central parts of the earth are more attracted than the waters on the opposite side of the earth. Consequently the waters directly under the moon will be as it were attracted from the centre of the earth and be made to rise towards the moon; and the centre of the earth will be as it were attracted from the waters on the side of the earth opposite to the moon, so that those waters will be less near the earth's centre than if the moon did not operate, i. e. they will rise. On the meridian directly under the moon, therefore, there will be a high tide and a similar one on the opposite side of the earth, at the distance of 180°. On each side, however, at 90° distance from that meridian, in consequence of the moon's very oblique attraction, the waters will be depressed.

At any place then, the moon, when on the meridian either above or below the horizon, tends to produce a flood, or elevation of the water, by causing it to flow from other parts, where of course there must be an ebb or depression. The waters in the vicinity of the places under and opposite to the moon flow toward them to maintain the equilibrium; and to supply the places of these, others will move the same way, and so on to places 90° distant; consequently in those places where the moon appears in the horizon, the waters will be lowest, that is, it will be *low water*, or *ebb*.

From what has been said it follows, that were the surface of the earth entirely covered with water, the ocean would have a prolate spheroidical figure, the longest diameter passing through the place where the moon is vertical, and the shortest where it appears in the horizon. And as the moon apparently shifts its place from east to west in moving round the earth every day, the longest diameter of the spheroid following, there must be two floods and two ebbs in the length of a lunar day, or the time of the earth's rotation with respect to the moon, or about twenty-four hours fifty minutes.

Hence we see the reason why the time of high water is about fifty minutes later every day; that is, if it be high water at eleven today, it will not be high water till near fifty minutes after eleven tomorrow.

It must be observed, however, that the time of high water at a place is not when the moon is in the meridian, but usually about three hours afterward, or the nearest elevation of the water follows the moon from east to west at a distance corresponding to about three hours of time. For, though the force be greatest when the moon is in the meridian, yet the greatest effect on the water cannot appear till some time afterward.

The sun has also an agency in producing the tides, but on account of its greater distance, the difference of its attraction on the nearest and remotest parts of the earth's surface, and at the centre, is much less, and of course its share in that effect; as it depends not

on the whole force of attraction, but on the difference of this force on different parts. This will be readily seen by adding 4000 miles, the semidiameter of the earth, to the mean distances of the sun and moon. The square of the sum of 240,000 and 4000 has a much greater proportion to the square of 240,000 than the square of the sum of 95,000,000 and 4000 has to the square of 95,000,000. And the power of gravity, as has been already observed, depends on the difference of the squares of the distances.

The tides are higher than ordinary twice a month, viz. about the times of the new and full moon; and these are called *spring tides*. Because at these times the attraction of the sun conspires with that of the moon, or their agency is in the same right line; and consequently the tides must be more elevated. When the two luminaries are in conjunction, or on the same side of the earth, they both conspire to raise the water on the nearest and remotest part; and when they are in opposition, that is, when the earth is between them, the part nearest to the one is remotest from the other, and *vice versa*, consequently the effects of their agency are united.

The tides are less than ordinary twice a month; that is, about the times of the first and last quarters of the moon; and these are called *neap tides*. For in the quarters of the moon, the sun raises the water where the moon depresses it; and depresses it where the moon raises it; the tides are made therefore by the difference of their actions.

It is, however, necessary to be observed, that the spring tides happen not precisely at the new and full moon, but a little after, when the attractions of the sun and moon have acted nearly in the same direction for a considerable time. Likewise the neap tides happen a little after the quarters, when the force of the moon's attraction has been lessened by that of the sun for several days together.

The spring tides are greater about the time of the equinoxes than at other times of the year; and the neap tides are then least. For the longest diameter of the spheroid, or the two opposite floods, are at that time in the equator; consequently the difference of attraction at the two opposite elevations, and at the centre, is greater; and the floods describe a great circle of the earth, by the diurnal rotation of which those floods move swifter, describing a great circle in the same time they used to describe a small circle parallel to the equator, and consequently the waters, being impelled more forcibly against the shores, rise higher.

The tides are also affected by the variations in the distances of the sun and moon. Thus the sun, being nearer in winter than in summer, has a more powerful influence in producing these phenomena; or tends to make the spring tides higher and the neap tides lower. And, as the moon's orbit is elliptical, its distance varies, and consequently its attractive force.

Such would be the phenomena of the tides, were the whole surface of the earth covered with water; but as this is not the case, there being beside the continents a multitude of islands, lying in the way of the tide, and interrupting its course; therefore in many

places near the shores, a great variety of other appearances, beside those already enumerated, arise. These require particular solutions, in which the shores, straits, shoals, rocks, and other objects, must be considered; a disquisition which requires much more room than can be afforded in this introduction. What has been said will however be sufficient to explain the theory of the tides in general, and enable the reader to pursue the inquiry and solve the difficulties that may arise with regard to any particular place.

RAIN GAGE.

The *Rain Gage* is an instrument to show the quantity of rain which falls upon the earth at any place where you may wish to make observations. It consists of a funnel, communicating with a cylindrical tube at its bottom, into which the rain is conveyed by the funnel. The depth of the water in the cylinder is measured by a rule fixed to a float, the rule passing through the centre of the funnel. The divisions on the rule show the number of cubic inches of water that have fallen on a surface equal to the area of the top of the funnel. The funnel is so contrived as to prevent the water from evaporating.

To use the rain gage, so much water must first be put into the cylinder as will raise the float, so that 0 on the rule may exactly coincide with the aperture of the funnel. The gage should be firmly fixed in a place, where, whatever winds blow, the fall of the rain may not be intercepted by any obstacles. By this instrument, the mean *annual* depths of rain in inches at the places below, has been determined.

	Inches.
London - - - -	21·4
Paris - - - -	19·6
Pisa, in Italy - - - -	43·25
Zurich, Swisserland - - -	32·25
Lisle, Flanders - - -	24·0

It appears that the most rain falls in places near the sea coast, and less and less as the places become more inland. The quantity which falls on the western coast of England is sometimes twice as much as falls at London. It is also found, that the nearer the instrument is to the ground, the more rain it collects.

HYGROMETER.

The *Hygrometer* is an instrument to measure the moisture and dryness of the air: and is formed of substances which will expand or contract upon any alteration of moisture. Wood expands by moisture and contracts by dryness; on the contrary, cord, catgut, &c. contract by moisture and expand by dryness; and various mechanical contrivances have been invented, to render sensible the smallest variations in the lengths of these substances.

A TABLE,

Exhibiting the Superficial Content of the whole Globe, in square Miles, sixty to a degree, and also of the Seas and unknown Parts, the habitable Earth, the Continents; likewise the great Empires, and principal Islands, arranged according to their magnitude.

	Square Miles.
The Globe, as some suppose, about	199,000,000
Seas and unknown parts	160,000,000
The habitable World	39,000,000
America	14,000,000
Asia	10,500,000
Africa	9,500,000
Europe	2,600,000
Continent of New-Holland	4,000,000
Persian Emp. under Darius	1,600,000
Roman Em. in its meridian	1,600,000
Russian ———	4,000,000
Chinese ———	1,700,000
Great Mogul's ———	1,100,000
United States of America	1,000,000
New-England	72,000
Turkish Empire	950,000
Present Persia	800,000
Borneo	228,000
Madagascar	168,000
Sumatra	129,000
Japan	118,000
Great-Britain	72,900
Celebes	68,400
Manilla	58,500
Iceland	46,000
Terra del Fuego	42,000
Mindanao	39,100
Cuba	38,400
Java	38,200
Hispaniola	36,000
Newfoundland	35,500
Ceylon	27,700
Ireland	27,500
Formosa	17,000
Anian	12,000
Gilolo	10,400
Sicily	9,400
Timor	7,800
Sardinia	6,600
Cyprus	6,300
Jamaica	6,000
Flores	6,000

	Square Miles.
Ceram	5,400
Breton	4,000
Socatra	3,600
Candia	3,220
Porto Rico	3,200
Corsica	2,520
Zealand	1,900
St. Jago	1,400
Long Island or Manhattan	1,400
Majorca	1,400
Negropont	1,300
Teneriffe	1,270
Gothland	1,000
Madeira	950
St. Michael	920
Skye	900
Lewis	886
Funen	768
Yvica	625
Minorca	520
Rhodes	480
Cephalonia	420
Amboyna	400
Orkney, Pomona	324
Scio	300
Martinico	260
Lemnos	220
Corfu	194
Providence	168
Man	160
Bornholm	160
Wight	150
Malta	150
Barbadoes	140
Antigua	100
St. Christopher's	80
St. Helena	80
Guernsey	50
Rhode-Island	50
Jersey	43
Bermudas	40

New-Guinea New-Zealand New-Caledonia New-Hebrides Otaheite Friendly Islands Marquesas Easter, or Davis's Pelew Islands Ingraham's Islands	Islands lately dicovered, but not fully explored, and whose dimensions are not exactly known.

A TABLE,

Exhibiting the heights of some of the most remarkable mountains in English feet.

	Feet.		Feet.
Snowden	3555	Vesuvius	3938
Moel Eilio	2371	Ætna	10954
Schihallien, west summit of	3281	Teneriffe	11022
Kirk Yetton Cairn	1544	Monte Viso	9997
Skiddaw	3240	Hecla, in Iceland	4903
Helvellyn	3300	Table Hill, west Signal	3468
Monte Rosa	15084	Pico Ruivo	5141
Montblanc	14432	Caraborou	7840
Argentiere	12172	Canigou	9214
Buet	8894	Quito	9374
Mole	4883	Pichincha	15564
Dole	4293	El Coracon	15783
Saleor	3284	Coraçon	15833
Mont Cenis, at the Post	5031	Chimborazo	20575
Monte Velino	8397		

LENGTH OF MILES IN DIFFERENT COUNTRIES.

There is scarcely a greater variety in any thing than in this sort of measure; not only those of separate countries differ, as the French from the English, but those of the same country vary in the different provinces, and all commonly from the standard. Thus the common English mile differs from the statute mile, and the French have three sorts of leagues.

We shall here give the miles of several countries, compared with the English, by Dr. Hally.

The English statute mile consists of 5280 feet, 1760 yards, or 8 furlongs.

Eleven Irish miles are equal to fourteen English.

The Russian vorst is little more than $\frac{3}{4}$ English.

The Turkish, Italian, and old Roman less, mile is nearly 1 English.

The Arabian, ancient and modern, is about $\frac{1}{4}$ English.

The Scotch mile is about $1\frac{1}{8}$ English.

The Indian is almost 3 English.

The Dutch, Spanish, and Polish is about $3\frac{1}{2}$ English.

The German is more than 4 English.
The Swedish, Danish, and Hungarian is from 5 to 6 English.
The French common marine league is nearly 3, and
The English marine league is 3 nautical miles.

SCRIPTURE MEASURES OF LENGTH.

								Eng. Yds.	Ft.	Inches.
Digit								0	0	0·912
4	Palm							0	0	3·648
12	3	Span						0	0	10·944
24	6	2	Cubit					0	1	9·888
96	24	8	4	Fathom				2	1	3·552
144	36	12	6	$1\frac{1}{2}$	Ezekiel's Rod			3	1	11·328
192	48	16	8	2	$1\frac{1}{3}$	Arabian Pole		4	2	7·104
1920	480	160	80	20	$15\frac{1}{3}$	10	Schænus, or Measuring Line	48	1	11·04

THE LONGER SCRIPTURE MEASURES.

						Eng. Miles.	Yds.	Feet.
Cubit						0	0	1·824
400	Stadium					0	248	0·6
2000	5	Sabbath Day's Journey				0	1216	0·
4000	10	2	Eastern Mile			1	672	0·
12000	30	6	3	Parasang		4	256	0·
96000	240	48	24	8	A Day's Journey	33	288	0·

The East used another span equal to one third of a cubit.
The above are sacred measures, in the lengths of which there must necessarily be some degree of uncertainty. Arbuthnot makes the sacred cubit equal to 1·7325 feet. He also observes, that the Jews sometimes made use of a profane cubit, the length of which he determined to be 1·485 feet.

DIFFERENT TIMES WHEN THE DAY BEGINS; AND A SHORT ACCOUNT OF THE OLD AND NEW STYLE.

The ancient Egyptians and Romans supposed the day to begin at midnight; and it is also now considered by the United States of

America, Great-Britain, France, and most European countries, as beginning at that time. In astronomy, however, it is supposed to begin at noon, or the time when the sun is on the meridian. The beginning has been fixed at sunrise by some nations, as the ancient Babylonians, Persians, &c. and at sunset by others, as the ancient Jews, Grecians, &c.

In the *Julian calendar* or *old style*, a method of reckoning time, adopted by Julius Cæsar, about 45 years before the birth of Christ, which was much preferable to any that preceded it, a year was supposed to consist of 365 days and 6 hours; each of 3 years in succession was considered as a common year of 365 days, and on account of the annual excess of 6 hours, another was added to every fourth, which consequently consisted of 366 days, and was called *leap* year. As the solar year, or the time of the apparent annual revolution of the sun, is not exactly 365 days and 6 hours, but nearly 365 days, 5 hours, 48 minutes and 48 seconds, it follows, that the Julian year exceeded the solar by about 11 minutes and 12 seconds. This annual excess amounts to 1 day in 129 years. Notwithstanding this inaccuracy, the Julian style was generally used in Europe till the year 1582, when it was reformed by Pope Gregory the thirteenth, who introduced what is called the *Gregorian* or *new style*.

It having been found that the vernal equinox, which had been fixed to the 21st of March by the council of Nice, held in the year 325, happened the 11th of March in 1582, the difference of 10 days between the civil and real time was taken from the October of that year, and the 21st of the next March reduced to the true time of the equinox. But the Protestant states refused, at that time, to accede to the new style, which the Pope had enjoined on all the ecclesiastics within his jurisdiction, and exhorted the Christian princes to adopt in their respective dominions; and it did not commence in the British empire, of which the present United States of America then made a part, till the year 1752, when the error having increased to 11 days, they were, by an act of parliament, struck out of the calendar from the month of September, the third day, according to the old style, being called the fourteenth.

The reformation of the calendar consisted not only in expunging the excess of the civil above the real time, but also in the introduction of a principle which should prevent a like accumulation of error in future. According to the old style the last year of every century is a leap year, but in the new only every fourth of these leap years is retained, the rest being considered as common years. This diminution of the number of leap years nearly balances the error, which, at the rate of 11 minutes and 12 seconds a year, amounts to 1 day in 129 years, and 3 days in about 4 centuries.

It is, however, to be observed, that at the above annual rate of 11 minutes and 12 seconds, the accumulation in 4 centuries is 3 days, 2 hours, and 40 minutes, so that the deduction of 3 days in 4 centuries, falls short of the difference between the civil and real time by 2 hours and 40 minutes, which error will become equal to 1 day in 36 centuries.

UNIVERSAL GEOGRAPHY.

THE EARTH.

EXTENT, ORIGINAL POPULATION, HISTORICAL EPOCHS, RELIGIONS, DIVISIONS, ARRANGEMENT.

Extent. THE globe, which we inhabit, contains on its surface about 197 million square miles.

Original Population. The sacred scriptures give us the only authentic account of the manner in which the earth was originally peopled. From them we learn, that the whole family of man is descended from a single pair, *whom God created out of the dust of the ground;* that man was destined for immortality, and that "death and all our woe" have been the consequence of his transgression. The state of man was originally a state of civilization. No vestiges of a savage state are discoverable before the building of Babel. The first man was a gardener, the second a husbandman, the third a shepherd; and Noah was well acquainted with the cultivation of the vine. The distinction of property was early recognized. Marriage was acknowledged as a divine institution. The sabbath was appointed; sacrifices were offered; and tithes rendered. Many of the arts appear, either to have been divinely taught, or early invented. Cain, the first born of the human race, *built a city*; and of course, knew all the arts which such an undertaking requires. Tubal invented the harp and organ. Tubal-Cain was an artificer in brass and iron; and must therefore have known the various steps by which these metals are prepared for the manufactures. "*Bows of steel and molten mirrors*" require, also, superior skill in the artist Noah was well acquainted with the division of quadrupeds into *clean and unclean*, which depended on an accurate classification of them into four *genera*. Aquatic animals were divided into the same number of kinds. Astronomy is also proved, by a variety of circumstances, to have been considerably known before the deluge. Soon after that event, when called to divide the earth among the various families of his posterity, and to disperse them over it, an extensive knowledge of the geography of the various countries must have been requisite. Writing was known, also, long before the time of Moses. Government was originally patriarchal; afterwards tyrannical. The true God was at first generally worshipped; afterwards *atheism* ap-

pears to have been almost universally prevalent; but there are no traces of *idolatry* before the flood.

To prevent this divinely appointed dispersion of the human family, the tower of Babel was begun by Nimrod and his party, who were principally descendants of Ham, in connection with numbers of those children of Japheth and Shem. These were the first idolaters. Many of the children of Ham, as the colonists of Egypt and Syria, were not united with him. His empire was soon overthrown, the language of his party confounded, and his adherents scattered over the face of the earth. They do not appear to have had any part or lot in the division made by Noah; but to have become very extensively vagabonds and robbers, of whom all early nations seem to have had traditions, and to have been described under the common name of *Giants*.

The division of the earth by Noah among the rest of the human race, happened immediately before, at the birth of Peleg, the son of Eber. To Shem fell the south of Asia; and the Jews, Arabs, Persians, Hindoos, the inhabitants of farther India, and of the Asiatic isles, are numbered among his descendants. Japheth got possession of northern and central Asia; *of the isles of the Gentiles*, or Europe; and finally of America. China appears originally to have been settled by a Tartarian population, with which a Hindoo colony afterwards intermixed. Japan may claim this mingled parentage. Africa and Syria, were allotted to Ham. From Syria, his descendants, the Philistines, were never thoroughly rooted out by the children of Israel. Except the Barbary states, in which we find a confused medley of *people, nations, and languages*, and the Bedowns, or Arabian free-booters, the African population is now almost purely the offspring of Ham. Egypt is to this day called *Misr*, and the Egytians *Misraim*; Abyssinia, *Cush*; and Syria, Abyssinia and Egypt, united, are called *Ham*, by the Asiatic and African Arabs.* The true religion was generally preserved long after this event. Abraham found it in the kingdoms of Abimelech and Pharaoh, and perhaps it was never purer than in the countries of Melchizedec and Job. In Mesopotamia, it certainly lasted till after the days of Jacob.

What is now called the *Chaldean*, was Abraham's vernacular tongue, which was spoken in Mesopotamia among his brethren of the family of Eber, who occupied the whole of that country after the overthrow of Nimrod. The *Hebrew* was the language of Syria. Abraham learned it in consequence of his living in that country.

The language, the arts, and the civilization of the various nations thus dispersed, depended on the circumstances in which they were placed. In several, these were little altered; those underwent for a long time no perceptible variation; other nations in consequence of their remoteness from their neighbours and from the sea; their change of climate and soil; and their difficulty of procuring the metals, particularly iron; appear early to have become barbarians. Armenia, or the country around the sources of

* Jackson's Morocco.

the Euphrates and the Tigris, was the scene of this division. In it, and the countries adjacent, were collected the arts and the letters of the earliest ages. While, in more distant regions, hardly a vestige of either was to be found. Profane history teaches us, that to Hindostan, to Persia, to Mesopotamia, and to Egypt the remoter nations resorted for the learning and the inventions, which their fathers had forgotten; and carried them from these countries gradually westward to the farther limits of the continent. At an earlier period, as we learn from the book of Job, almost every art and science was familiarly known in Arabia. Nor was this state of things probably altered, till the children of Ishmael, free-booters, according to propheoy, as well as by descent, had become the only Arabs.*

Historical Epochs. Under this we shall notice those events only, which have effected important changes in the condition of the earth and its inhabitants. Among these are the following.

The *Creation* of the Earth, in six days, out of nothing. This took place, according to the Hebrew, or commonly received chronology, 1656 years before the flood; according to the septuagint 2242 years.

The institution of the *Sabbath*, on the seventh day of the creation.

The *Fall* of our first parents, and the consequent curse on them and their posterity.

The *Deluge*, which overspread the face of the whole earth, and unpeopled it of all its inhabitants, except one family. Dr. Hales supposes that this event took place, A. M. 2256. In this he follows the chronology of Josephus. The common reckoning places it in 1656.

The *division of the earth*, by Noah, among his children and grand children, according to their families, about the time of the birth of Peleg.

The *building of Babel*, by Nimrod, and his adherents, the subsequent confusion of their language, and their consequent dispersion over the earth. These were the Titans of Greece.

The *establishment of the Assyrian empire by Ashur, grandson of Noah*, A. M. 1787; B. C. 2217. He built the city of Nineveh.

The *establishment of the Egyptian Monarchy by Misr*, the son of Ham, and his children, the Misraim; A. M. 1816. B. C. 2188.

The *call of Abraham*, and *the promulgation of the Abrahamic covenant*, by which God first entered into covenant with man, and a church of God was first established on earth, A. M. 2083. B. C. 1921.

The *colonization of Athens by Cecrops*, from Egypt; A. M. 2448. B. C. 1556.

The *settlement of Troas by Teucer*, the son of Scamander; A. M. 2502. B. C. 1502.

The *giving of the moral law*, and *the formation of the Jewish Church*. A. M. 2513, B. C. 1491.

The *siege of Troy*, which lasted ten years, and terminated in the destruction of that city, in the 40th year of the reign of Priam, the 5th from Teucer, A. M. 2820; B. C. 1184.

*See Davies's Celtic Researches; likewise Jones's Asia and Asiatic Researches.

The *Colonization of Asia Minor*, by the sons of Codrus, in conjunction with the Thebans and Ionians; A. M. 2935. B. C. 1069.

The *Building of Rome*, A. M. 3256. B. C. 748.

The *overthrow of the Assyrian empire* by Nebuchadnezzar, king of Babylon, A. M. 3403. B. C. 601.

The *overthrow of the Babylonian empire* by Cyrus the Great, king of Media and Persia. A. M. 3466. B. C. 538.

The *subversion of the liberty of Greece*, by Philip of Macedon, A. M. 3667, B. C. 337.

The *overthrow of the Persian Empire* by Alexander of Macedon, at the battle of Issus. A. M. 3671, B. C. 333.

The *division of the empire of Alexander* among his generals.

The *destruction of Carthage* by Africanus the younger. A. M. 385. B. C. 146.

The *termination of the Egyptian Monarchy* by the death of Cleopatra. A. M. 3974; B. C. 30.

The *birth of the Redeemer*. This great event, so long foretold by the prophets of Judea, is universally believed to have taken place in the year of the world 4000, according to the Hebrew chronology, 4 years before the commencement of the vulgar Christian era.

The *crucifixion of Christ*; A. M. 4036. A. D. 33.

The *commission of the Apostles* to convert mankind to the religion of Christ.

The *Division of the Roman Empire* into 4 parts under Diocleasian, Galerius, Maximian, and Constantius, A. M. 4295; A. D. 292.

The *baptism of Constantine the Great*, the first Christian Roman Emperor; who for 24 years had uniformly and powerfully befriended Christianity, A. M. 4340. A. D. 337.

The *final division of the Roman Empire into the eastern and western*, between Arcadius and Honorius, by their father Theodosius the Great. A. M. 4398. A. D. 395.

The *taking of Rome* by Alaric, A. M. 4412. A. D. 409.

The *establishment of the kingdom of France* under Clovis, A. M. 4513. A. D. 510.

The *establishment of the kingdom of the Lombards*, in Italy, which lasted 200 years, A. M. 4571. A. D. 568.

The *birth of Mahomet*, A. M. 4581. A. D. 578.

The *irruption of the Saracens* into Africa. They had previously conquered all the south-west of Asia, A. M. 4650. A. D. 647.

The *final expulsion of the Saracens* from *Europe*, after they had made many vigorous but unsuccesful attempts to establish themselves in it, for 291 years. A. M. 4965. A. D. 962.

The *invasion of the Eastern Empire* by the Turks under Tangrolipix; A. M. 5044. A. D. 1041.

The *commencement of the Crusades*, under the conduct of Godfrey of Bouillon. A. M. 5098; A. D. 1095.

The *establishment of the Mogul Empire* by Jenghiz Khan, A. M. 5209; A. D. 1206.

The *acknowledgement of the Pope's supremacy*, by Paleologus of the council of Lyons. A. M. 5278; A. D. 1275.

The *conquest of Syria, Persia*, the *Mogul Empire*, and *Hindostan*, in 1398 and 1399, and the defeat of Bajazet the Turk, two years afterwards by Tamerlane.

The *invention of gunpowder*, not far from the year 1280.

The *invention of the mariner's compass*, A. D. 1302.

The *invention of printing*, in the year 1430.

The *capture of Constantinople* by the Turks, May 29th, A. M. 5456. A. D. 1453. This sad catastrophe occasioned the dissolution of the Constantinopolitan empire, and finally established that of the Turks in Europe.

The *revival of learning* at Florence, under the patronage of the house of Medicis.

The *discovery of America by Christopher Columbus*, A. D. 1492.

The *discovery of the passage round the Cape of Good Hope*, by Vasco de Gama, A. D. 1497.

THE REFORMATION, which had been attempted in France by Waldo and his followers, the Waldenses, in the 12th century; in England, by John Wickliffe, in the 14th; and in Germany by John Huss and his coadjutors, in the 15th; was strenuously and successfully forwarded by Luther and Melancthon in Germany, and Zuinglius in Switzerland, and Calvin at France and at Geneva, in the middle of the 16th century.

The *American revolution*, 1776.

The *French revolution*, 1790.

The *introduction of vaccination*, by Jenner, 1798.

The *coronation of Buonaparte* as Emperor of France.

The *abolition of the slave-trade in* England, Denmark, and the United States, in March 1807.

The *emancipation of South-America*, 1810.

Religions. The religion of our first parents before the Fall, was *Natural Religion*. The worshipper asked for blessings, not on account of the merits of an intercessor, for he had never offended; but on the ground of a strict obedience to the law of God. This is the religion of all beings of unspotted innocence.

After the Fall the religion of Adam, and, for a considerable time, that of his posterity, was *Patriarchal*. The father of the family was the priest, who for his own and their sins, offered up sacrifices to God, merely as types of the great SACRIFICE, who was, in due time, to be offered for the sins of the whole human family. This form of religion continued among the descendants of Enos, till the flood; and after the flood, we find it, in the time of Abraham, in Mesopotamia, in Syria, and in Egypt, as the settled religion of those countries. We find it also, after this, in great purity, in the country of Job, and still later existing in Laban's family in Mesopotamia. Among the children of Israel it continued till the giving of the Law on Mount Sinai. Had history been faithful to her trust, probably many glimpses of it might have been discoverable for centuries afterwards.

The first corruption of the patriarchal religion was *Atheism*, or a denial of the existence of God. This appears to have prevailed early in the family of Cain, and to have spread, before the deluge, over the great body of the human race. The second corruption was *Gentilism*, or the worship of false gods. This is supposed, as we have already observed, to have been introduced under the empire of Nimrod; and when that empire was broken, to have been scattered by his subjects over the earth. Considerable time, however, appears to have been necessary to corrupt entirely the primitive religion. The mythology of the earliest nations is not so complete a contrast to truth and purity, as that which we find at later periods. These false gods have been endless in their number and in their kinds. They have been invisible beings, supposed to have a controlling influence over the earth; the sun, moon, and stars; light, fire, air, winds, water, the ocean, seas, rivers, and mountains; men distinguished by their virtue and their vices, the spirits of departed men, evil spirits, and the mere creatures of the imagination; beasts, birds, fishes, reptiles, and insects, and those even of the most loathsome kinds; trees, shrubs, and plants; minerals of every species from the most precious jewels to the stones of the street. Most Gentiles have been *Polytheists*, or have worshipped more gods than one; most have been *Idolaters*, or have worshipped visible representations of their deities: most have offered sacrifices; and many, human sacrifices. Gentilism spread rapidly and extensively; and, for more than 2500 years, has been the religion of the great body of mankind.

The covenant with Abraham did not give rise to a new religion. It was merely a modification of the patriarchal.

The JEWISH RELIGION was instituted at Mount Sinai, 1491 years before Christ. The children of Israel were taken by God to be his peculiar people, on the single condition, that they would acknowledge and worship him as their God. A solemn covenant was entered into on both sides, in consequence of which He became their Lawgiver, their Judge, and their Saviour. Their religious rites, though numerous and burdensome, were exactly fitted to their circumstances. They offered sacrifices like the patriarchs, as types merely; and were required, together with them, to offer the sacrifice of the heart. This religion ceased in effect at the death of the Redeemer; for then the Spirit from on high was withdrawn, and God refused to accept the offering of the worshipper. Considerable numbers, however, have in every subsequent age observed the rites of the synagogue.

Christianity was planted by the Apostles of Christ immediately after his death. Baptism was made the seal of initiation into the church. A regular ministry was established, whose business it was, not to offer sacrifices, for the Great Sacrifice had already been offered: but to teach mankind the scheme of salvation proposed by the Redeemer, and to call them, by repentance and faith in Him, to everlasting life. The Christian Religion had a rapid progress. By the end of the 4th century it overspread the whole Roman Empire, and numerous and powerful churches were found in

Europe, Asia, and Africa. These all, at length, became subordinate to two, the church of Rome, and the church of Constantinople. The churches of Turkey, Asia Minor, Syria, Armenia and Africa were under the control of the latter, while all the west and north of Europe was subject to the former. This division between these churches may be considered as having been completed in 859, when Photius, the patriarch, was excommunicated by the pope, and anathematized him in his turn. It was partly owing to the division in the empire; though the eastern and western churches early differed respecting the worship of images.

The temporal power of Rome was much more weakened by the early attacks of barbarians, than that of Constantinople. This gave the spiritual power an undue influence in the government; and, when Charlemagne made France the seat of the western empire, the pope was without a rival in Italy. His authority after this period increased with a strange rapidity, and at length became supreme. Its influence controlled every rank in life, and watched and guided every action. Kings trembled on their thrones, and the peasant in his cottage. None were too low to receive its notice; none too high to dread its vengeance. The lamp of science burned only in the monastery, and every one without was involved in the darkness of superstition.

The patriarch of Constantinople, on the contrary, had always a master in the empire. His power was chiefly spiritual. Hence the eastern churches were never thoroughly shackled. And, when Constantinople was taken by the Turks, in 1453, and the eastern Roman empire destroyed, the patriarch was evidently but second in power.

The first serious check to the usurpation of Rome was given in the 12th and 13th centuries, by the Waldenses and Albigenses in the south of France. They were driven into Bohemia, Savoy, and England; and prepared the way for the subsequent efforts of Wickliffe and Huss. From these, however, it in some measure recovered. But, in the 16th century, though Leo X. was pontiff, it found in Luther, Melancthon, Zuinglius, and Calvin, antagonists too formidable to be met; too wily to be circumvented. Norway, Sweden, Denmark, Prussia, and the north of Germany, Scotland, England, and Switzerland, were finally emancipated from popish thraldom; and the other nations of Europe loosened their fetters.

The Reformers took the name of *Protestants*, from their protesting, in 1529, against a decree of the emperor Charles V. and the diet of Spires. The great branches of the protestant religion were the Lutherans, the Episcopalians, and the Presbyterians; for under this latter name may be ranked the *Congregational* churches of Geneva, Switzerland, Holland, and United America, with as much propriety as the church of Scotland.

The Greek Church, the other great branch of the christian community, suffered extremely by the capture of Constantinople. The power of the patriarch was curbed, and several of his richest provinces were dismembered. The churches of Africa, except the Abyssinian, were in a great measure rooted out; while those of

Armenia, Syria, and Asia Minor, were brought under the most distressing bondage. These losses, however, were supplied, in degree, by the accession of European Russia, the most important part of the patriarchal empire.

Beside the Romish, the Greek, and the Protestant religions, there is still another branch of the Christian church, till lately unknown in Europe. This includes the Christians of Cochin, in Hindostan. They were established in that country at no distant period after the ascension of the Redeemer; and, for many centuries, knew no worshippers of the true God but themselves, and the Christians of Antioch. When the Portuguese established their power on the Malabar coast, they attempted to convert them by force to the Romish church. They succeeded with a part. The rest are to this day, what their churches always have been, Presbyterians in their form of government.

The *Mahometan Religion* is usually considered as having commenced, at Mecca, in 618, the 40th year of the Imposter's life. It professes to acknowledge and to worship the God of the scriptures; and yet, like several classes who style themselves *Christians*, denies the Divinity of the Son and of the Holy Ghost. Its fundamental articles are, *that there is one God, and that Mahomet is his Prophet.* Fire and sword were the means employed to extend it over Persia, Arabia, Turkey, Egypt, and the states of Barbary; and they were employed with success. Mahometanism soon became divided into two great sects, the *Schiites*, the followers of Ali; and the *Sunnites*, the followers of Omar. The former established itself in Persia, and assumed the red turban as its badge. The latter overspread Turkey and its dependencies, wore the white turban, and adhered strictly to the law as left by Mahomet and Omar.

Thus the great religions of the world are the Pagan, Jewish, Christian, and Mahometan.

The Pagan overspreads northern, central, and eastern Asia; the islands of the Indian and Pacific; central and southern Africa; the northern parts of North-America; and the central and southern parts of South-America. Of the 765 millions, who inhabit the globe, we believe that about 475 millions are Pagans, viz. about 450 in Asia, 20 in Africa, and 5 in America.

The Jews are dispersed over the globe. A small body politic has lately been discovered in Cochin, who are supposed to have settled there soon after the time of the transportation to Babylon. The whole number of Jews on the globe has commonly been estimated at 3 millions.

Christianity is the religion of all Europe, except about one third of the population of Turkey; of all America, that is not Pagan; of Abyssinia, and various European settlements in Africa; and of Georgia, Cochin, and a few Portuguese and English settlements in Hindostan and the Asiatic isles. The whole number of Christians on the globe is probably about 214 millions, viz. 177 in Europe, 30 in America, 4 in Africa, and 3 in Asia.

The remaining 73 millions are Mahometans, overspreading northern Africa, Arabia, Turkey in Asia, Persia, and the south-

eastern part of Russia in Asia, and extensively diffused over Hindostan and Turkey in Europe. Their high priest is the Mufti, who resides at Constantinople. It will readily be observed that these numbers are not supposed to be accurate. They are, however, according to the best information which we can obtain, probably not far from the truth.

Divisions. The astronomical divisions of the earth by meridians, parallels of latitude, lesser circles, and climates have already been detailed. The two great natural divisions of the earth are *land* and *water*. About 42 million square miles make up the various divisions of land, and about 155 millions are covered with water. The following are the divisions of land.

CONTINENTS. *A very large extent of country is called a continent.* Of these there are two, the *eastern* and *western*. The eastern comprehends Europe, Asia, and Africa; the western North and South-America. The eastern has been generally estimated to contain 22,600,000 square miles, and the western 14,000,000. The present population of both, including the islands, is, according to the best data which we possess, about 765,000,000 or $18\frac{3}{14}$ to each square mile of land on the globe.

Europe, Asia, Africa, and America are sometimes also called *the four quarters of the world.*

New-Holland, the largest island on the globe, has sometimes been considered as a *third* continent.

PENINSULAS. *A peninsula is a tract of land, surrounded by water, except at one narrow neck, by which it is connected with the main.*

Africa and South-America are the largest peninsulas on the globe. Sweden and Norway, Greenland, (probably) Nova Scotia, Malaga, Jutland, Morea, and Crimea, are among the smaller peninsulas of note.

ISLANDS. *An island is a tract of land, smaller than a continent, entirely surrounded by water.* The principal islands on the globe, are New-Holland, between the Pacific and Indian oceans, usually estimated to contain 4,000,000 square miles; Borneo, Madagascar, and Sumatra, all in the Indian ocean; Great-Britain, Iceland, and Terra del Fuego, in the Atlantic; Nova Zembla and Spitzbergen in the Frozen; and Saghalien, Jesso, Niphon, New-Guinea, and New-Zealand, in the Pacific.

ISTHMUSES. *An isthmus is a narrow neck of land, joining a peninsula to the main.* The two most noted isthmuses are that of Darien, which unites North and South-America, 34 miles wide; and that of Suez, which connects Africa with Asia, 60 miles wide.

PROMONTORIES. *A promontory is a tract of land, projecting far into the sea without an isthmus.* The most noted are Hindostan, Kamtschatka, Tchutskoi, California, Italy, Corea, East Florida, Yucatan and Alaska.

CAPES. *A cape is the termination of a promontory, or of any other tract of land, running into the sea.* The most noted capes are Cape Horn, Cape of Good Hope, North Cape, Cape Taimour, East Cape, Cape Prince of Wales, Icy Cape, Cape Verd, Cape Guarde-

fan, Cape Comorin, Cape Farewell, Cape Sable, Cape Lucas, and Cape Florida.

MOUNTAINS. *A mountain is a tract of land, considerably elevated above the adjacent country.* Mountains are usually found connected together in long chains or ranges; sometimes, however, they are single, isolated eminences. The longest range of mountains in the world is the *American Range*, which reaches from the straits of Magellan to the Frozen ocean, almost 10,000 miles, and comprises the Andes in South-America, the Cordilleras of Mexico, and the Stony or Rocky mountains of North America. Other long ranges are the Altaian, the Uralian, that of Atlas, the Mountains of the Moon, the Apalachian, or Alleghany, the Caucasian, the Alps, and the Pyrenees. The most noted single mountains are Mont Blanc, Ophir, Peak of Teneriffe, Etna, Hecla, and Vesuvius.

The following are the divisions of water.

OCEANS. The largest divisions of water are not like those of land, separated from each other. On this account, considered as a whole, they frequently receive the name of *the Ocean* or *the Sea*. The word ocean, however, in a subordinate and more common sense, means *a large collection of water separated partly by land, and partly by a supposed or imaginary boundary, from some other collection.* Of these there are four.

1. The *Pacific*, which has America on the west, and Asia, the Indian ocean, and New-Holland on the east; on the north it is connected with the Frozen ocean by Behring's straits. On the south an imaginary line, passing from cape Horn to cape South, on Van Diemen's land, separates it from the Southern ocean. Pinkerton proposes a line passing from a headland in New-Holland, in long. 130° east, through Ceram, along the eastern shore of the Philippines, to the southern cape of Formosa, as the proper separation between the Pacific and Indian oceans. The distance of America and Asia, at Behring's straits, is 48 miles.* This ocean soon widens rapidly. In lat. 59° it is about 1440 miles; in 50°, 4300; in 5° north, its widest point, 10,900; at its southern extremity, 6280. This ocean has a multitude of clusters of islands. The large rivers which empty into it, are the Kianku, Hoang-ho, Amoor, Columbia, and Colorado.

2. The *Atlantic*, which is bounded by America on the west, and by Europe and Africa on the east. It is generally considered as separated on the north, from the Frozen ocean, by an imaginary line passing from North cape due west, to the coast of Greenland; and on the south, from the Southern ocean, by a line passing from the cape of Good Hope, to cape Horn. Its width between Norway and Greenland is not more than 700 miles; between Labrador and Great-Britain, 1700; between the United States and France it is about 3000; in lat. 23° north, its widest point, more than 4500; across obliquely from Brazil to Africa, about 1500; and in lat. 34° south, upwards of 3500. Except the islands in the Caribbean sea, called the *West-India islands*, this ocean contains, comparatively, but few. The large rivers, which empty into the

* Sauer's Expedition, page 257.

Atlantic, are the La Plata, Amazon, Oronoko, Bravo, Missisippi, St. Lawrence, Nelson's, and the Rhine.

3. The *Indian* ocean, which lies between Africa on the west, Asia on the north, and New-Holland on the east. Its width, in lat. 7° north, is about 2800 miles; on the equator, 6000; and in lat. 35° south, 4800. The promontory of Hindostan divides the northern part of this ocean into the Arabian sea on the west, and the bay of Bengal on the east; an imaginary line, passing from the cape of Good Hope to New-Holland, is supposed to separate it from the Southern. The islands in this ocean, are very large and very numerous. The great rivers which flow into it, are the Euphrates, Indus, Ganges, Burrampooter, Irawaddy and Maykaung, or Japanese river.

4. The *Northern* ocean, which lies north of America, Asia, and Europe. It is commonly said to be 3000 miles over. Its communications with the Pacific and Atlantic have been mentioned. It is principally an immense field of ice, extended round the arctic pole, and forever barring it from the inroads of commerce and the researches of discovery. The shores of this ocean have been but partially explored. The voyage round the North cape, in Lapland, to the White sea, is very common. From Archangel the Russians have sailed eastward as far as the mouth of the Petshora, and from the Lena westward, as far as the Katanga. A knowledge of the coast between Petshora and Katanga, is still a desideratum in geography. A single voyage has been made from the Lena eastward, through Behring's straits. This was by a Russian, of the name of Deshnef, in 1648. All subsequent attempts of the same kind have been unsuccessful. Capt. Cook, after passing through Behring's straits, could reach no higher on the Asiatic coast, than cape North, in lat. 68 56, long. 179 9 west. On the American, Icy cape, in lat. 70 29, long. 161 40 west, was the limit of his discovery. The Tschutski assert, that farther north the American coast tends to the north-west, and approaches that of Asia. Farther east, the American coast has been discovered, but in two places; in 1789, by M'Kenzie, in about lat. 70° north, and long. 135° west; and in 1771 by Hearne, in lat. 72° north, and 119° west. These discoveries were made in journies by land. How far north the east coast of Greenland has been explored we do not know. But hitherto no voyager has ever found the northern coast of that country; and on the other side of the continent no one has ventured farther east than the Icy cape.*

To this ocean the herring resort in the autumn to breed their young. About the middle of winter they proceed towards the south in three great divisions. The smallest squadron passes through Behring's straits, and visits the coasts of Kamschatka and Alaska. The main body, passing between Norway and Greenland, reaches Iceland about the beginning of March, in a close phalanx of surprising depth, and such extent that the surface is supposed to equal the dimensions of Great-Britain and Ireland. Here they divide. The western division, passing between Greenland and Iceland,

* Coxe's Russian Discoveries.

covers the shores of America, as far as the Chesapeak. The vanguard of the eastern reaches the Shetland isles in May, and the main body arrives in June, towards the end of which month, and through that of July, they are in their greatest perfection. From Shetland, one division passes through the German sea, and arrives at Yarmouth in October. The other passes to the west along both shores of Ireland. In the month of October they are supposed to return to the Arctic ocean.*

Arrangement. It will be the object of the following work to give an accurate and comprehensive account of the present state of the various countries on the globe; together with such a summary of their history, as will enable our readers to estimate their relative importance in the various periods of time.

A single glance at the map of the two continents will discover to the eye some of the strongest geographical features of both, which do not belong, exclusively, to the great divisions of either. Thus in the western, the great American range of mountains extends through the continent; the isthmus of Darien, the gulf of Mexico, and the Caribbean sea, lie between North and South-America; and the Gulf Stream coasts the shores of both. In the eastern, the Mediterranean lies between, Europe, Asia and Africa; the Black sea, and the smaller seas and straits connected with it, together with the rivers Don and Wolga, and the mountains of Ural, belong equally to Europe and Asia; and neither Asia nor Africa can present an exclusive claim to the Red sea, or the isthmus of Suez. These considerations have induced us to form two general heads, AMERICA, and THE EASTERN CONTINENT, and under them to sketch the stronger lineaments of both.

Of the four quarters of the world, America, the most interesting to our countrymen, will be first described. Europe, Asia, and Africa will follow in their order.

The countries, which compose the respective quarters of the globe, will be arranged with a general reference to their geographical situation. Such an arrangement will best serve to fix on the mind a clear impression of their relative position; and it need not, like the arrangement of Pinkerton, be changed with every new edition of a geography.

Each country will be described under the two following general heads, HISTORICAL GEOGRAPHY, and NATURAL GEOGRAPHY. The historical geography of a country will include its Extent, Boundaries, Names, Original Population, Historical Epochs, Antiquities, Religion, Government, Population, Colonies, Army, Navy, Revenue, Political Importance and Relations, Manners and Customs, Language, Literature, Arts, Universities, Cities and Towns, Roads, Inland Navigation, Manufactures, and Commerce. In short it will comprehend all that information respecting the present state of each country, which would be useful to the historian, who, at some future period, might be employed in writing its history. This head includes all the articles contained in the three first divisions of Pinkerton.

* Pinkerton.

Natural geography will comprise Climate and Seasons, Face of the Country, Soil and Agriculture, Islands, Seas, Bays, Sounds, Swamps, Lakes, Rivers, Mountains, Forests, Botany, Zoology, Mineralogy, Mineral Waters, and Natural Curiosities. This is the same with the fourth division of Pinkerton, and will convey that information which is interesting to the NATURALIST, in the most extensive use of that word.

The first will comprehend those articles, which are dependent on man for their existence or character; while those, which owe either to the AUTHOR OF NATURE, will be classed under the second. Those, of course, which are unsettled and variable in their character, will be included under the first; while the second will comprise those which are fixed and permanent.

One exception must be made to these remarks. The *Agriculture* of a country is usually more the result of moral, than of natural causes. But, as it would be extremely difficult to describe it without first giving an account of the soil, they are both made to form one article under natural geography. Perhaps it may be thought that the articles *Extent* and *Boundaries* are another deviation from the proposed plan. This opinion, however, will be given up by those, who consider, that the bounds and extent of countries, through every period of time, have depended, with scarcely an exception, on the power and caprice of man.

AMERICA.

EXTENT. BOUNDARIES. DIVISIONS ORIGINAL POPULATION, HISTORY OF DISCOVERIES. RELIGIONS. GOVERNMENTS. POPULATION. CITIES. CLIMATES AND SEASONS. FACE OF THE COUNTRY. BAYS. ISLANDS. LAKES. RIVERS. POINTS OF COMMUNICATION BETWEEN THE TWO OCEANS. MOUNTAINS.

Extent. WE cannot speak with certainty as to the extent of America, because its northern limit has never been ascertained. If, as is probable, Greenland is a part of the continent, it passes through 138 degrees of latitude, and its whole length is 9591 miles. Its greatest breadth, from the extremity of the promontory of Alaska, to the easternmost point of Labador, is 4570 miles; while its least breadth, across the Isthmus of Darien, is only 34 miles. The average breadth, is about 1500 miles. The greatest breadth of South-America, from cape Blanco, on the west, to cape St. Roque on the east, is 3320 miles. America extends from cape Horn, in lat. 56 S. to lat. 80° N; and from long. 35° to 168° W. It contains, exclusive of its islands, upwards of 14,000,000 square miles.

Boundaries. America has the Atlantic on the east, the Pacific on the west, and the northern or Frozen ocean on the north. On the south, the continent is separated from the island of Terra del Fuego, by the straits of Magalhaens, or, as it is commonly called, Magellan.

Divisions. We shall consider this immense continent under the three great divisions pointed out by nature, North-America, the West-Indies, and South-America.

Original Population. Without detailing the numerous hypotheses respecting the sources of the original population of America, with which philosophers have amused themselves and mankind, we shall state, in a few words, the result of our own enquiries on this subject, together with the facts from which this result is formed.

I. The Greenlanders and Esquimaux were emigrants from the N. W. shores of Europe. A colony of Norwegians was planted in Iceland in 874. Greenland was settled by Eric Rufus, a young Norwegian, in 982; and before the eleventh century, churches were founded and a bishopric erected at Garde, the capital of the settlement. Soon after this, Bairn, an Icelandic navigator, by accident discovered land to the west of Greenland. This land received the name of *Vineland.* It was settled by a colony of Norwegians in 1002, and, from the description given of its situation and productions, must have been either Labrador or Newfoundland.* Vineland was west of Greenland, and not very far to the south of it. It also pro-

* Mallet's Northern Antiquities.

duced vines spontaneously. Its situation corresponds with both Labrador and Newfoundland. Its productions correspond also with those of the former country, if not with the latter; for Mr. Ellis, in his "Voyage to Hudson's Bay," informs us, that the vine grows spontaneously in Labrador: and compares the fruit of it to the currants of the Levant. Several Moravian missionaries, prompted by a zeal for propagating Christianity, have settled in Greenland. From them we learn, that the Esquimaux perfectly resemble the Greenlanders in their aspect, dress, and mode of living; that the natives of the two countries have intercourse with one another; that some sailors, who had acquired the knowledge of a few Greenlandish words, reported, that these were understood by the Esquimaux; that, at length, a Moravian missionary, well acquainted with the language of Greenland, having visited the country of the Esquimaux, found, to his astonishment, that they spoke the same language with the Greenlanders; that there was abundant evidence of their being of the same race, and that he was accordingly received and entertained by them as a friend and brother.* These facts prove the settlement of Greenland by an Icelandic colony, and the consanguinity of the Greenlanders and Esquimaux.

The enterprise, skill in navigation, and habits of roving, possessed by the early navigators, render it highly probable, also that, at some period more remote than the 10th century, they had pursued the same route to Greenland, and planted colonies there. Their descendants, the Greenlanders and Esquimaux, retaining somewhat of the enterprise of their ancestors, have constantly preserved a communication with each other, by crossing and recrossing Davis's strait, which separates Greenland from Labrador, and which in several places is of no great width.

II. The other tribes of North-America, and all the nations of South-America, come from the N. E. coast of Asia, across Behring's straits. The distance from East cape to cape Prince of Wales, is 48 miles. Several islands lie in the straits. In the winter the passage is frozen. In the summer the natives continually cross, in canoes, from one coast to the other. Coxe, in his Russian Discoveries, mentions, that several Kamtschadale vessels, in 1745, were driven out to sea and forced, by stress of weather, to take shelter among the Aleutian islands, a distance of several hundred miles. Captain Cook, in one of his voyages, found some natives of one of the islands in the Pacific ocean, out at sea, in their war canoes, 600 miles from home. The distance of the two continents could not therefore have been any objection.

The complexion of the Tartars of Asia is the same with that of the Aborigines of America; and the Indians of the western coast have, in common with the Kamtschadales, little eyes, small noses, high cheek bones, and broad faces. They resemble each other, also, in their manner of living; in their mode of emigrating by tribes; in the custom of scalping their enemies, and of marching in what is called *Indian file*; in tattooing their faces with charcoal; in making canoes of birch bark distended over piles of wood,

* Crantz's Hist. of Greenland, p. 261.

and nicely sewed together; in using paddles, broad at both ends; in burying along with their dead the articles, which they most valued; and in covering their corpses with mounds of earth and piles of stones.

The Araucanians, the Peruvians, the Mexicans, the Moheakanneews, the Iroquois, and the Chipewyans, all had traditions of their ancestors having come from the west, or north-west. This harmony of their traditions could not have exisited, if they had not been true.

These various nations of America undoubtedly emigrated at different periods, and always by tribes, more or less numerous, and possessed of very different degrees of civilization.

Native Tribes. The principal nations and tribes, which occupied the immense territories of the western continent, beginning at the south, were the Araucanians, the Peruvians, the Caraibes, the Mexicans, the Californians, the Sioux, the Moheakaneews, the Iroquois, the Knisteneaux, the Chipewyans, and the Esquimaux.

The Indians of Chili and Patagonia all spoke one language. We call them ARAUCANIANS, after the name of their most powerful tribe. They were more civilized than most of the Tartars. They will be particularly described under the article Chili. It is sufficient to remark here, that they are at this day, a powerful, compact, independent republic.*

THE PERUVIANS were farther advanced in civilization, when America was discovered, than the European Russians, in the time of Peter the Great. We shall defer our account of them to the article Peru.

THE CARAIBES inhabited the West-Indian Islands, and the shores of Guiana and Caraccas. A particular account of these, also, will be given hereafter.

THE MEXICANS constituted a powerful empire. They were still farther advanced in civilization than the Peruvians. See a further account of them under the article Mexico.

THE CALIFORNIANS were much less civilized. They were divided into many petty tribes. They will be described under the head of California.

The country lying west of the Missisippi and north of New-Mexico, as far as the parallel of 52° N. was inhabited by many independent tribes, whom, for want of a better name, we call THE SIOUX, after the name of the most numerous tribe. For an account of them see the article Louisiana.

THE MOHEAKANEEWS† inhabited the greater part of the United States, and probably New-Brunswick and Nova Scotia. Of many of their tribes we have authentic accounts.

THE IROQUOIS, or, as they are commonly called the Six Nations, inhabited the northern and western parts of the state of New-York.

THE KNISTENEAUX still occupy a vast extent of country. Their language is the same with that of the people, who inhabit the coast of British America, on the Atlantic, with the exception of the Es-

* Molina. † Dr. Dwight's Manuscript observations.

quimaux; and continues along the coast of Labrador and gulf and banks of St. Lawrence, to Montreal. The line then follows the river Utawas, to its source; and continues thence nearly west along the highlands, which divide the waters of lake Superior and Hudson's bay. It then proceeds, till it strikes Winnipec river, and following it through lake Winnipec, to the mouth of Saskatchawine, ascends that river to Fort George; when the line, striking by the head of Beaver river to Elk river, runs down that river to the Lake of the Hills. The whole of the tract between this line and Hudson's bay and straits, except that of the Esquimaux, in the latter, is occupied by the Knisteneaux. Some of them indeed have penetrated farther west and south, to the Red river of lake Winnipec, and the south branch of the Saskatchawine.

The Knisteneaux are of a moderate stature, well proportioned, and very active; of a copper complexion, and black hair.* Their eyes are black, keen, and penetrating; their countenances open and agreeable. They generally pull out their beards by the roots, and paint their faces with vermillion. Their dress consists of tight leggings, which reach near the hip; a belt of leather a foot wide, and five feet long, tied round the waist; a close vest or shirt reaching down to the belt; and a cap for the head, made of fur, ornamented with the bush of the animal, and the feathers of birds. A kind of robe, shaped like a blanket, is occasionally thrown over the whole, and answers both night and day. These articles, with the addition of shoes and mittens, constitute the variety of their apparel. Their dress is profusely ornamented with fringe and tassels, moose deer hair, and porcupine quills. The teeth, horns, and claws of various animals are often suspended from the neck. Their dress is made by the women. The female dress differs from that of the men, in having the vest pass under the belt, and reaching below the knee. The Knisteneaux women are very neat and comely.

The tribe is naturally mild and affable, just in their dealings, generous, hospitable, good-natured, and indulgent to their children. Chastity and fidelity are not held by them in high estimation; for a temporary interchange of wives is not uncommon, and the offer of their persons is considered as a necessary part of the hospitality due to strangers. When a man loves his wife, it is considered his duty to marry her sister, if she has one. Incest and bestiality are common among them; and, like most other savages, they are strongly attached to spirituous liquors. The profession of the men is war and hunting. They also spear fish, but the women manage the nets. Their females, like those of the other Indians, are in a state of dependence and servitude. Their life is an uninterrupted succession of toil and pain. They are so sensible of their situation, that they frequently destroy their female children, to save them from the miseries, which they themselves have suffered. These Indians travel in summer in canoes; in winter when the waters are frozen, in sledges, drawn by dogs. They are fond of war, and engage in it from the love of glory, and from the desire of revenge.

* These are common to all the natives of North-America.

War is always determined on in a public council of the whole tribe. They begin every council, and every ceremonial and feast, with smoking. This is the commencement even of their funerals, and they always terminate with a feast, and an eulogium. In the spring and autumn, they have public, solemn, religious ceremonies, at which they sacrifice white dogs, and make large offerings of their property to the Being, whom they call by a name signifying the *Great Master of Life*. The scene of these ceremonies is always the bank of a river or lake, in the most conspicuous situation. They know the virtues of many herbs and simples. The dung of animals newly killed is used as a remedy for sprains, and a sharp flint serves them for a lancet. They are fond, also, of European medicines, though ignorant of their application. The Knisteneaux resemble the Moheakeneews in their mode of living and their language, and undoubtedly had a common origin.* There is good reason to believe also, that they were originally the same with the Sioux, or the Indians of Louisiana.

The Chipewyans are numerous. They consider the country between lat. 60° and 65° N, and between lon. 100° and 110° W. as their home. Their language is copious, and difficult to be attained; and is spoken in many dialects by the tribes, who wander over the immense tract of country, which begins at Fort Churchill, and runs along the line of separation between them and the Knisteneaux, up the Missisippi to the isle à la Grosse; passing on through Buffaloe lake, River lake, and Portage La Loche; from thence it proceeds by Elk river to the lake of the Hills, and goes distinctly west to Peace river, and up that river to its source; thence down the Columbia to lat. 52 24, long. 122 54, where they have the Atnah or Chin nation for their neighbours; thence due west to the sea coast. Between them and the Frozen ocean lie the Esquimaux, and on the North-West Coast is a nation different from both.

The Chipewyans have confused traditions of the creation, the fall, the longevity of the antedeluvians, the deluge; and of their nation coming many ages since from another country, inhabited by very wicked people, across a great lake, which was narrow, shallow, and full of islands, where they suffered great misery; it being always winter, with ice and deep snow. They believe in the transmigration of the soul, and in a future state of rewards and punishments. They are sober, timorous, inclined to dishonesty, but, what is singular, not addicted to ardent spirits. Their complexions are swarthy and their features coarse. Their country is generally barren, and covered with moss. They have not been in America so long as the Knisteneaux. Their progress has been only eastward; while that of the Knisteneaux for some time has been westward.†

The Esquimaux possess the sea coast from the Atlantic through Hudson's straits and bay, as far as M'Kenzie's river, and probably farther. They never quit the coast; and agree in appearance,

* The Algonquins are a tribe of Knisteneaux.

† For this account of the two Indian nations last described the author is indebted to M'Kenzie, I. 119—158.

manners, language, and habits, with the inhabitants of Greenland. Their progress has been only westward.* We shall describe them hereafter.

It cannot be doubted, that there were many other small tribes, unconnected with these, which have not been mentioned. All that can be done, in this case, is to give a general geographical outline of the principal *nations*. It will be observed that we have said nothing of the aborigines of western Terra Firma, of Brazil, and of Paraguay. This deficiency is owing to a very sufficient cause, the want of information respecting them. If, with Clavigero, we admit that the equinoctial parts of Africa and America were once united, the aborigines of these parts of America, may have come to this continent by that rout. But this is mere conjecture.

History of Discoveries. The discovery of America is now universally ascribed to Christopher Columbus, a native of Genoa; though many attempts have been made to deprive him of the glory. The Norwegians, the Welch and the Germans, each in their turn, have stated their respective pretensions.

The Norwegians certainly settled Greenland, as early as 982; and, in 1002, planted a colony in Labrador or Newfoundland. They do not, however, appear, during the existence of this colony, to have considered the country as any thing more than an island; and, in a moderate period afterwards, the colony and the country seem to have been forgotten.

The pretensions of the Welch have a much slighter foundation. In the 12th century, a dispute having arisen among the sons of Owen Gwyneth, king of North-Wales, about the succession to the crown; Madoc, one of their number, went to sea in search of a more peaceful settlement. He steered due west, leaving Iceland to the north, and arrived in an unknown country, which appeared to him desirable; he returned to Wales and carried thither several of his countrymen. This, it is said, took place about 1170. He and his colony have not been heard of since.

The Germans ascribe the honor of the discovery to Martin Behaim, their countryman. Behaim was an enterprising navigator, and the most complete geographer of his time. But a globe, which he constructed in 1492, which afterwards fell into the hands of Magellan, furnished conclusive evidence, that he had never made the discovery himself, and that he had never heard of its being made by others. Beyond the Cape Verd islands he placed the island of *Antillia*; beyond this, and near the equator, the island of St. Brandan; and, about as far from this, as this was from the Cape Verd islands, he placed *Zipangu* or Japan. Hence Columbus was led to suppose, when he discovered the first land, that he was in the neighbourhood of Japan. The following are the principal epochs of discovery.

874. Iceland, which is really an American island was peopled by a colony of Norwegians commanded by Ingulph.

982. Greenland was settled by Eric Rufus, a young Norwegian; and, before the eleventh century, churches were built and a bishopric erected at Garde, the capital.

* M'Kenzie, II. 894.

1002. Vineland, which is probably Labrador, possibly Newfoundland, was discovered by Bairn, an Icelander. A small colony of Norwegians was planted there. The fate of this colony has never been fully ascertained.

1492. Christopher Colon, or, as he is commonly called, Christopher Columbus, a native of Genoa, set sail from Palos in Spain, under the auspices of Ferdinand and Isabella, the sovereigns of Castile and Arragon. For at least 20 years before, he had been fully satisfied of the existence of unknown regions in the west; and, during the greater part of that time, had been endeavouring to secure the patronage of some of the principal powers of Europe. From the love, which he bore his native country, he first laid his proposals before the senate of Genoa, and offered to sail under the banners of the republic. The senate rejected his offers as chimerical. He then submitted his plan to the Portuguese, who made a perfidious, but unsuccessful, attempt to anticipate him in the glory of the enterprise. In 1484 he made an unsuccessful application to Henry VII. of England; and, during the eight following years, experienced a series of mortifying disappointments, at the court of Ferdinand, which would have broken down the resolution of any other man. Columbus himself was almost in despair. He withdrew from court, and was preparing to make one more desperate attempt on the generosity and the ambition of the English monarch; when he was recalled to Castile by the generous Isabella, and employed, on his own terms, in her service. The poverty of her court prevented her from equipping an armament suitable to her own dignity, and the importance of the enterprise. It consisted of three vessels; the largest, the *Santa Maria*, a ship of no considerable burden, was commanded by Columbus as admiral. Martin Pinzon was captain of the second, called the *Pinta*. The third, the *Nigna*, was under the command of Vincent Yanez Pinzon. The squadron was victualled for 12 months, and had on board 90 men, mostly sailors, together with a few adventurers. The expence of fitting out the expedition was 4000 pounds sterling; and to raise this sum the queen generously offered to pledge her own jewels.

On the first of October, he was, by his own reckoning, 770 leagues west of the Canaries. His men began to mutiny, and he was forced to promise to return, if land did not appear in three days. Fortunate presages soon arose, such as land-birds, a cane newly cut, a carved piece of wood, and the branch of a tree, with fresh red berries. On the evening of the 11th of October, he was so confident of being near land, that he ordered the sails to be furled, the ships to lie to, and a strict watch to be kept, lest they should be driven on shore in the night. During this interval of suspense and expectation, no man shut his eyes, all kept on deck, gazing intently towards that quarter, where they expected to discover the land, which had so long been the object of their wishes. A little before midnight, Columbus, from the forecastle of the *Santa Maria*, discovered a light at a distance, and shortly after the cry of *land! land!* resounded from the *Pinta*, the headmost ship. Rodrigo de Triana was the name of the mariner, who was so fortunate as to announce

this intelligence to his countrymen. With the dawn of Friday, October 12th, a beautiful isle appeared, two leagues to the north. The crews of all the ships unitedly sang *Te Deum*, with shouts of joy and transports of congratulation. They then threw themselves at the feet of Columbus, and begged him to forgive their incredulity and disobedience.

The island was one of the groupe, called the Bahamas. Columbus named it San Salvador, but it is now better known by the native name of Guanahani.* He was the first who landed. His men followed, and, kneeling down, kissed the ground, which they had all so ardently desired to see. They next erected a crucifix, and prostrating themselves before it, returned thanks to God for conducting their voyage to a happy issue. The natives regarded the Spaniards, as the children of the sun; and the Spaniards were hardly less amazed, in their turn, with the productions and inhabitants of the island.

Columbus soon afterwards discovered Cuba and Hispaniola. After visiting the Azores, on his return, he arrived at Palos on the 15th of March, 1493. In September of this year, Columbus sailed upon his second voyage to America; discovered the islands, Dominica, Marigalante, Guadaloupe, Montserrat, Antigua, Porto Rico, and Jamaica; founded a town in St. Domingo, being the first European settlement in the new world; and returned to Spain in 1496.

1496. The fame of Columbus immediately spread through Europe, and inspired many with the same spirit of enterprise. In the spring of this year, Giovanni Gaboto,† a Venetian, under a commission from Henry VII. sailed from England, discovered the coast of Labrador, and coasted northerly, as far as the 67th degree of latitude.

1497. In company with his son, Sebastian Cabot, he discovered Bonavista, on the N. E. side of Newfoundland; and, before his return, traversed the coast from Davis's straits, to cape Florida.

1498. This year Columbus made his third voyage, and, Aug. 1, discovered the CONTINENT, at the mouth of the Oronoco, together with the island of Trinidad. He then returned to Hispaniola; and in October 1500, was sent back to Spain *in chains ! !*

1500. Pedro Alvarez Cabral, on a voyage to the East-Indies, discovered Brazil.

1502. This year Columbus made his fourth and last voyage. He discovered the bay of Honduras, and coasted thence easterly 200 leagues, as far as the gulf of Darien. During this voyage, he was shipwrecked on the island of Jamaica. He returned to Spain in 1504. On his arrival he received the fatal news of the death of his patroness, Queen Isabella.‡

* The Cat island of the English mariners.

† In English, John Cabot.

‡ This illustrious man was afterwards created duke of Veragua. He died of the gout at Valladolid, on the 20th of May, 1506, in the 59th year of his age; and was buried at Seville with this most honorable inscription.

A Castilla y a Leon
Nuevo Mundo dio Colon.

1513. Vasco Nugnez de Balboa, from the mountains of the isthmus, discovered the Pacific ocean. He afterwards waded into it and took a formal possession of it in the name of the king of Spain.

In the same year John Ponce, a Spanish captain, discovered East-Florida.

1520. Ferdinand Magalhaens, or Magellan, a Portuguese gentleman, in the employ of the court of Castile, discovered the straits of Magellan, and sailed through them into the Pacific ocean. No European before him had ever sailed on its waters. To him it owes its name.

1528. Captain Vitus Behring, sailed from Kamtschatka, northeast, as far as lat. 67°, and thus ascertained the separation of America and Asia.

1534. James Cartier, in the employ of Francis I. of France, on the day of the festival of St. Lawrence, discovered the gulf and river, which bear that name.

1553. Sir Hugh Willoughby discovered the island of Spitzbergen.

1578. This year sir Francis Drake, as brave a man as ever sailed in an English ship, coasted along the whole western shore of South-America. In 1579 he discovered California, and took possession of the country under the name of *New-Albion*. He passed thence to the Moluccas or Spice islands, Sept. 29, 1579, and arrived in England, Nov. 3, 1580, after an absence of two years and ten months.

1585. John Davis, an experienced navigator, sailed to the western coast of Greenland, and explored Davis's straits. On another voyage he proceeded as far north, as the island of Disco, and discovered Cumberland's straits.

1607. Henry Hudson explored the eastern coast of Greenland, as far as 82° north.

1609. In a second voyage he discovered Hudson's river, and ascended it, as far as Albany.

1610. This year Hudson made his third voyage, and discovered the straits of Hudson, and the large inland sea, known by the name of Hudson's bay.

1616. Captain Robert Bylat, and William Baffin, went in search of a north-west passage to India. Baffin afterwards published an account of the voyage. According to this account they went far northward of the utmost limits of Davis's voyage, and discovered Horn sound, cape Dudley Diggs, Hackluyt island, sir Thomas Smith's sound, Cary's Islands, Alderman Jones's sound, and sir James Lancaster's sound. He claims, also, to have discovered that the body of water lying between Greenland and America is a bay, and not a strait; and, of course, that Greenland is not an island, but a part of the continent. Little credit, however, is given to his representations, and it is not yet ascertained whether Greenland is a peninsula or an island.

To Castile and to Leon
Colon gave a new world.

Some writers assert that the body of Columbus was carried to the West-Indies and buried in the Cathedral at St. Domingo, in Hispaniola.

1745. In this year the Aleutian or Fox islands, stretching west from the promontory of Alashka, were discovered by some Kamtschadale voyagers, who were driven by stress of weather near to the American coast.

1772. Mr. Hearne, while exploring the interior of North-America, discovered the Frozen sea, in about 110° west long. and in lat. 70° north. Mr. M'Kenzie, in 1789, discovered it in the same latitude, and in about 135° west.

An account of the settlement of the continent will be given under the heads North and South-America.

Religions. The religions which exist in America are the Jewish, the Christian, and the Pagan.

A few Jews are scattered over the large towns of the United States, Mexico, the West-Indies, and South-America.

Of Christians, Roman Catholics are most numerous in America. They compose the chief European population of Canada, and the whole of that of Brazil and Spanish America. They are found, also, in considerable numbers in Maryland, and in several of the capital towns in other parts of the United States they have congregations.

Almost all the inhabitants of the United States are Protestants, as are those of Nova Scotia, New-Brunswick, New-Britain, Greenland, and the islands in the West-Indies, which were settled by the English.

The native tribes of North-America, a few converts to Christianity excepted, are Pagans; as are the nations in Amazonia and Patagonia, as well as most of the tribes in the conquered provinces of South-America

Governments. The United States are a republic; Greenland and British America are provinces; Brazil is now an independent kingdom; Spanish America is struggling to be free; Araucania, in Chili, is a republic; the island of St. Domingo calls itself an empire; and the Aborigines, where they are unsubdued, with the exception of the Araucanians of Chili, constitute numerous independent petty kingdoms.

Population. On this subject we have scarcely any thing to guide us but conjecture. That of the United States is known. That of British America can be nearly ascertained. That of Spanish America and Greenland can be guessed at; while at that of aboriginal America one would hardly venture to guess. From the best information which we have been able to obtain, we are however led to conclude, that it does not exceed 35,000,000. Nor do we believe that it falls greatly short of that number.

Cities. The cities of America are all comparatively, of a recent date, and cannot vie with those of the second order in the old world. They are most of them, however, rapidly increasing, and, in the progress of a century, it is not unlikely, that several of them will be mentioned among the great cities of the earth. The largest are Mexico, in Old-Mexico, Rio Janeiro in Brazil, the Havanna, in Cuba, Philadelphia, New-York, and New-Orleans in the United States, Quebec, in Canada, Buenos Ayres in Paraguay, and Lima in Peru.

Climate and Seasons. The variety of climate and seasons in America, is much greater than in either of the other three quarters of the globe. It extends through the torrid and northern temperate zones; through a great part of the southern temperate, and a considerable proportion of the northern frigid zones. The winters of North-America are colder, and the summers hotter, than those of Europe in the same latitudes. They bear a much nearer affinity to those of eastern Asia. The weather also is extremely variable. The equatorial regions of America are never subjected to the intense heat, which prevails in the same regions in Africa. The complexion of the aborigines of Peru and Brazil is red, and is but a few shades darker, than that of the Indians of New-England. This milder temperature is owing to the vicinity of the Andes. The temperate regions of South-America are colder than the corresponding latitudes of North-America. It is also said, that the North-West Coast of America is much warmer than the N. E. in the same parallels.

Face of the Country. America contains no immense deserts similar to the Zaara of Africa, or the extensive sandy plains of central Asia. Its surface, without an exception worthy of being mentioned here, is mountainous, hilly, or uneven.

Seas. Hudson's Sea (commonly called Hudson's Bay) is considered as commencing at cape Chidley and cape Walsingham, that is, in long. 65° W. it reaches 30° of longitude; which, in lat. 60°, will be about 1050 miles. It lies between 51° and 69° N. lat. Its length of course is 1250 miles. Its shores, from Moose river, or the bottom of the bay, to cape Churchill, are generally low and shallow, with a muddy or sandy bottom; and the lands are wooded with pines, birch, larch, and willows. From cape Churchill to cape Walsingham, the coasts are all high and rocky to the very sea, and woodless, except the mouths of Pockerekesko and Seal rivers. Nor are there any trees for a great distance inland. The whole western shore is faced with islands, at some distance from the land. The eastern boundary of the bay is Labrador. The coast here, also, is high, rocky, and lined with islands; and the land barren beyond the efforts of cultivation. In this bay the beluga, or white whale, is taken in great numbers, in the month of June. Large sturgeons are also caught near Albany. The bay, however, does not abound with fish. Shell-fish, the common muscle excepted, are extremely rare. Chesterfield inlet is a singular strait, stretching far to the west, but terminates in a magnificent lake of fresh water communicating with this sea by, what may be called, a broad river; the adjacent land is level, rich in pasture, and abounding with deer. It is not ascertained whether Hudson's bay opens into the Arctic ocean. If it does, the land lying north and east of it is an immense island, much larger than any other on the American coast.

Caribbean Sea. The great mass of waters reaching from the peninsula of Yucatan, on the west, to the windward islands on the east, and having Porto Rico, Hispaniola, and Cuba, on the north, is usually called the Caribbean sea. It extends from 61° to 90°

W. long. and from 8° to 22° N. lat. The bay of Honduras is near its western extremity. East of this bay lies the gulf of Darien.

Bays. The great bays or gulfs of the American continent are Baffin's bay; Hudson's bay; the Caribbean sea; and the gulfs of St. Lawrence, Mexico, and California.

Baffin's Bay. The body of water, which is called Baffin's bay, lies between Greenland on the east, and Labrador and the countries north of Hudson's bay, on the west. It is not yet ascertained whether it is a bay or a strait. If any credit is to be given to Baffin's narrative, it is a very large bay, extending not less than 1800 miles from N. to S. and near its northern extremity, not less than 600 from E. to W. Its width, near the southern extremity, in that part improperly called Davis's straits, is not more than 350 miles. In the midst of Baffin's bay many maps present a large tract, called James island. It opens into the Atlantic between cape Farewell and cape Charles.

Gulf of Mexico. This celebrated gulf has East-Florida on the N. E. West-Florida and Louisiana on the N. and Mexico on the W. and S. It extends from 18° to 30° N. and from 83° to 98° W. It communicates with the Atlantic and the Caribbean sea between cape Sable and cape Catoche. Its southern extremity is called the bay of Campeachy.

Gulf of St. Lawrence. The gulf of St. Lawrence has Labrador on the north, Newfoundland and cape Breton on the E. and Nova-Scotia and Canada on the S. and W. It extends from about 46° to 52° N. lat. It has three communications with the ocean, one between Nova-Scotia and cape Breton, called the gut of Canso; a second between cape Breton and Newfoundland; a third between Newfoundland and Labrador, called the straits of Belleisle. The depth of this gulf is 240 miles, and its width at the mouth, 90 miles.

Gulf of California. This is a bay lying between the peninsula of California and Mexico. Its general course is from N. W. to S. E. It lies between lat. 20 20, and 32 30, N. and between long. 105° and 114°E. Its greatest length, from cape Corientes to the mouth of the Colorado, is not less than 900 miles. Its average breadth is about 200 miles. The western coast is lined with numberless islands throughout its whole extent. The river Colorado, which empties at the head of the gulf, is the largest in Mexico, and not improbably the largest, except the Columbia, which empties from America into the Pacific ocean. The gulf communicates with this ocean between cape St. Lucas, the southern extremity of the peninsula, in lat. 22 48, and cape Corientes on the Mexican coast, in lat 20 20.*

Gulf Stream. The name of this stream, and its connexion with the gulf of Mexico, render it proper to describe it in this place. It is a remarkable current, occasioned by the general trade winds. Commencing at the equator, near the coast of Africa, by a westward course it crosses the Atlantic, and running along the shores of Guiana and Terra Firma, passes through the Caribbean sea, and

* Venegas, Hist. California. Section II.

coasts the gulf of Mexico. It then issues from the gulf, between cape Florida and the island of Cuba, and traversing the coasts of East-Florida, the United States, New-Brunswick, and Nova-Scotia, proceeds to the banks of Newfoundland. There it turns to the S. E; and, passing the Azores, it makes for the coast of Africa, near which, at the equator, it commences anew its former circuit. It is easily distinguishable from the other waters of the ocean by the gulf weed, with which it is every where interspersed; by being 8 or 10 degrees warmer than the surrounding sea; and by not sparkling in the night. In high latitudes, also, it is always covered with a thick fog. It passes about 75 miles from the shores of the southern states. The distance increases as you go northward. Its breadth is about 40 or 50 miles, widening to the north. Its common rapidity is 3 miles an hour, and it takes about 20 days for it to run from cape Florida to Newfoundland. Northeast and east winds narrow the stream, render it more rapid, and drive it nearer the coast. Northwest and west winds have a contrary effect. Skilful navigators, in their voyages from Europe to New-England, pass the banks of Newfoundland in 44° or 45° N. lat. and sail thence between the northwestern limit of the gulf stream and the shoals and banks of Sable Island, George's Bank, and Nantucket.

Islands. The principal islands are Spitzbergen, Iceland, Terra del Fuego, Cuba, Hispaniola, and Newfoundland. The two first have commonly been considered as European isles; but they are much nearer to Greenland than to Norway. They will all be particularly described hereafter.

Lakes. There is nothing in the other parts of the globe, which bears any resemblance to the immense chain of lakes in North-America. Europe has its Ladoga; Asia its Caspian, Aral, and Baikal; and South-America its Xarayes: while North-America contains Slave lake, lakes Winnipec, Superior, Michigan, Huron, Erie, Ontario, and Nicaragua; the least of which is equal to any on the eastern continent, except the Caspian: beside a very great number of inferior size.

The northern lakes of this continent may be considered under three great divisions. 1. Those whose waters are discharged into the Arctic ocean. 2. Those whose waters pass into Hudson's bay. 3. Those which are emptied into the gulf of St. Lawrence.

1. Lakes, whose waters are emptied into the Arctic ocean. The principal southern source of these waters is Elk river, sometimes called Athabasca river; which, rising in lat. 54°, long. 117°, pursues a northeasterly course of about 180 miles, when it receives the waters of lesser Slave lake by means of lesser Slave river; and, after running eastwardly about 80 miles, northwardly about 110, and eastwardly again about 40, receives the waters of Pelican river, a considerable stream from the N. E. near Portage La Loche; which is the height of land between the river Missinipi, and Slave lake. Thence it runs due north 140 miles, and empties into the southwestern end of the

Lake of the Hills. This lake, according to M'Kenzie, reaches from 106° to 111 30 W. and from 58 40, to 59 40 N. If this ac-

count be correct, it is about 180 miles in length, but every where very narrow. Fort Chipewyan, the great rendezvous of the western traders, lies near its southwestern extremity, in lat. 58 40 N. long. 110 30 W. Elk river issues from the northwestern end of the lake, and, after a course of about 20 miles due north, unites with a much larger stream, called the Unjigah or Peace river. This is the principal source of the waters of the Slave lake. It rises among the Rocky mountains in a small lake, in lat. 54 24 N. long. 121° W. near the height of land, that separates the waters which flow into the Arctic ocean, from those which are discharged, by Columbia river, into the Pacific. This small lake is two miles in length, E. by S.; and is only 817 yards distant from another lake of the same size, which is the source of Bad river, one of the branches of the river Columbia, which empties into the Pacific ocean, in latitude 46° north, longitude 124° west. Peace river runs nearly north a distance of 180 miles from its source, where it is 800 yards broad. Its course is then eastward, 280 miles to the forks, where it receives the East Branch, which has not yet been explored. For about 320 miles from its source, it runs through the Rocky mountains, having them most of the way close to its banks. From the Forks, to lat. 57 40, a little above what is called the NEW ESTABLISHMENT, its course is northerly for 140 miles, and afterwards northeasterly for about 250; when it unites with Elk river, in lat. 59° long. 111 20. Its current here is very rapid, and its width upwards of a mile. The united stream takes the name of Slave river, and runs a course of 220 miles, a little west of north, when it empties into the southern side near the western end of

Slave Lake. According to M'Kenzie's map, this lake lies between lat. 60 30 and 63° N. and between long. 110° and 119° W. Its length, from E. N. E. to W. S. W. is about 270 miles, and its circumference, owing to its irregular shape, not less than 1000 or 1100 miles. Its waters are discharged at the northwest end, through M'Kenzie's river, in lat. 61 20 long. 118 30. This river, after running 170 miles in a N. W. direction, and 193 miles due north, receives the waters of the Great Bear lake (a lake about 70 or 80 miles in length) through the Great Bear river. Its general course thence is N. W. by N. 422 miles; when it empties into the Arctic ocean, in lat. 70° long. 135°. The distance of the head of Peace river, in lat. 54 24 N. and long. 121° W. from its junction with Elk river in 59° N. and 111 20 W. is 850 miles. The length of Slave river is 220 miles. The distance of its mouth from the mouth of Slave lake, is 180 miles; and the length of M'Kenzie's river 785 miles, making a total of 2035 miles.*

2. Lakes, whose waters pass into Hudson's bay. There are two rivers, through which these waters are discharged; the Missinipi or Churchill river, which empties at Churchill fort; and Nelson's river, which empties at York fort.

Lake la Loche, the length of which is 20 miles, is the source of the first. It lies near Portage la Loche, and is discharged by a

* These distances and dimensions are obtained from M'Kenzie's Travels.

river of the same name; which after a course of 24 miles, empties into the northwest end of Buffalo lake, in lat. 56 8. This lake is 36 miles long, and from 6 to 12 broad, in a northwest direction. The distance between this and Black Bear lake is a little more than 200 miles, following the meanderings of the waters. There are no less than 9 lakes in this distance, the chief of which is lake La Crosse, about 35 miles long and 12 broad, which receives the waters of Beaver river from the south. Black Bear lake is about 45 miles in length. After leaving this lake, the river pursues an easterly course, about 115 miles, to Portage de Traite; whence it runs northeast, and empties into Hudson's bay, in lat. 59°. This portage separates the waters of the Missinipi from those which flow into lake Winnipec.

The principal western source of these last mentioned waters is the river Saskatchawine, the southern and longest branch of which rises in the Rocky mountains, in lat. 50°, long. 115°; and the northern very near the source of Elk river. The Saskatchawine, after running a course, according to M'Kenzie's map, of about 500 miles, receives, in Pine Island lake, the waters of a river, which rises near Portage de Traite, and runs in a southeasterly direction 150 miles, through Beaver lake and several others of smaller extent. The united stream, retaining the name of Saskatchawine, runs through Cedar lake, 34 miles long and 12 broad, and, after a course of 90 miles, in lat. 53 15, falls into the western side of

Lake Winnipec, near the northern extremity. The course of this lake is about W. N. W. and S. S. E. Its southeast end is in latitude 50 37. In 51 45 it contracts to a strait, and is only two miles wide. Its northwest end is in 54 30. Its length is at least 280 miles, and its surface larger than any of the American lakes, except lake Superior. Its northern banks are of black and grey rock; its southern a low, level country, occasionally interrupted with a ridge or bank of limestone, lying in strata, and rising to the perpendicular height of from 20 to 40 feet. Where the banks are low, it is evident that the waters are withdrawn, and never rise to those heights, which were formerly washed by them. At a small distance west of lake Winnipec, and parallel with it, lie two long and narrow lakes, Red Deer lake, and lake Manitoba, whose united length, on M'Kenzie's map, is not much less than that of lake Winnipec. The first receives the waters of Red Deer and Swan rivers from the west, and empties them by a narrow outlet of 9 miles in length, into the second; which, at its southern extremity receives Stone Indian river, and empties all its waters into the Winnipec, through Dauphin river, at the head of St. Martyn's bay, in lat. 52 15 north. Lake Winnipec, from the south, receives Red river, which rises very near the source of the Missouri, one of the branches of the Missisippi. At its southeastern corner Winnipec river flows into it, discharging the waters of Rainy lake, and the lake of the Woods. This river rises near the Grand Portage, about 9 miles from the northwest shore of lake Superior; and, after a course of 220 miles due west, enters Rainy lake. Through this lake it runs 45 miles, whence it flows 120 miles, and enters the

lake of the Woods. This lake is nearly circular, and its diameter is about 75 miles. Its course thence is northwest, 230 miles; when it empties into lake Winnipec, in lat. 50 37. Thus the whole distance from the Grand Portage to lake Winnipec, is about 690 miles, and, the width of the portage being added, makes it 700. In this distance, owing to rapids and other obstructions, there are not less than 40 portages or carrying places. The outlet of lake Winnipec is Nelson's river, which begins at the northern end of the lake, and pursues a northeasterly course, till it empties into Hudson's bay, at York fort, in lat. 52 30. Its length is probably not less than 500 miles.*

3. Lakes, which empty into the gulf of St. Lawrence. The most distant source of these waters is the river St. Louis, which rises near the head of the Missisippi, and empties into the southwest extremity of

Lake Superior. This is the largest body of fresh water on the globe. It lies between lat. 46 31, and 48 40 north, and between lon. 84 and 92 10 west. Its length is 400 miles, and its circumference, including its various bays, is 1600. On its south side is a remarkable promontory, 60 miles in length, called point Shagoimago. Along its north shore is the safest navigation, as it is a continued embankment of rock from 300 to 1500 feet in height. Here are numerous coves and sandy bays, convenient for landing, frequently sheltered by islands from the swell of the lake, which is often no very faint imitation of the swell of the ocean. The soil on the eastern shore is rocky and barren, yielding only stinted trees, brambles, and fruits of humble growth. The south side of the lake, east of point Shagoimago, is almost a continual straight line of sandy beech, interspersed with rocky precipices of limestone, sometimes rising to an hundred feet in height. There is not a bay or a creek in this whole distance. The embankments, from that point westward, are in general of strong clay, mixed with stones, which renders the navigation irksome and dangerous. Lake Superior receives from the northeast the waters of Michipicoten river, which rises near the source of Moose river, a stream falling into James bay at Moose fort; and, from the northwest, the waters of lake St. Ann, through Nipegon river, which rises near a branch of the Albany, a river, which falls into James bay, at fort Albany.

There are many islands in this lake, two of them, Philip and Royal isles, have each land enough, if proper for cultivation, to form a considerable province. Isle Royal, near the northwest coast of the lake, is not less than a hundred miles long, and in many places forty broad. The natives suppose these islands are the residence of the Great Spirit. Measures have lately been taken, by an association formed for the purpose, to survey, and, if practicable, to settle and improve these islands, and others which belong to the United States.

Not far from the Nipegon is a small river, that just before it enters the lake, has a perpendicular fall from the top of a mountain of

* M'Kenzie.

six hundred feet.* It is very narrow, and appears at a distance like a white garter suspended in the air. There are upwards of 30 other rivers, which empty into this lake, some of which are of a considerable size. About 100 miles west of cape Shagoimago, a considerable river falls into the lake, the head of which is composed of a great assemblage of small streams. This river is remarkable for the abundance of virgin copper that is found on and near its banks. Many small islands, particularly on the eastern shores, abound with copper ore lying in beds, with the appearance of copperas. This metal might be easily made a very advantageous article of commerce. This lake abounds with fish, particularly trout and sturgeon; the former weigh from 12 to 50 pounds, and are caught almost any season of the year in great plenty. The waters of lake Superior pass over the falls of St. Mary, through the straits of the same name, about 40 miles, and empty into

Lake Huron. The length of this lake is 250 miles, and its circumference, including the coasts of the bays, 1100. It lies between lat. 43 30 and 46 30 north, and between lon. 80 and 84 30 west. The entrance is crowded with numerous islands. The principal of these is St. Joseph, on which there has been since the surrender of the upper posts, in 1794, a military establishment, the westernmost which the British have erected. About 200 miles east of the straits of St. Mary, in lat. 45 53, it receives, from the north, the waters of lake Nepisingui, through French river. This lake is 36 miles long, and 15 broad; and its distance from lake Huron is 75 miles. French river has many islands in its course, and its banks consist of hills of entire rock. The northern coast of lake Huron is the same, but lower, backed at some distance by high lands. The waters of lake Simcoe, about equal in size to lake Nepisingui, fall into lake Huron from the east.

Lake Michigan. The situation of this lake is between lat. 42 10 and 46 30 north, and between lon. 85° and 87° west. It is 300 miles long and 945 in circumference. A large bay, on the northwest side of it, is called Green bay. In this lake are many kinds of fish, particularly trout of an excellent quality, weighing often from 20 to 60 pounds. Michigan is separated by a barren tongue of land, 90 miles long and 24 broad, from lake Superior. The southeast extremity of this promontory is called the Detour. About 40 miles to the southwest of this point is the island of Michilimackinac,† just without the straits of the same name, through which the waters of the Michigan fall into the Huron. Fort Michilimackinac is on the south side of the strait. It stands so near the water's edge, that, in a west wind, the waves break against the stockade.‡

The waters of lakes Superior, Michigan, and Huron are all discharged, through Huron river, into lake St. Clair. The length of this river is about 40 miles, and the circumference of lake St. Clair, 90. It discharges its waters through the river or strait called Detroit (or the strait) into lake Erie. This lake is of an oval form, and

* Carver. † Pronounced *Mishilimackinaw.*

‡ For further information concerning this lake and its environs, see *Michigan Territory.*

navigable for large vessels. The fort of Detroit is situated on the western bank of the river of the same name, about nine miles below lake St. Clair. The settlements are extended on both sides of the strait or river for many miles towards lake Erie, and some few above the fort.

*Lake Erie** is situated between 41° and 43° of north latitude. It is 200 miles long, from E. N. E. to W. S. W. and 710 miles in circumference. A point of land projects from the north side into this lake, several miles, towards the southeast, called Long Point. The islands and banks towards the west end of the lake are so infested with rattle-snakes, as to render it dangerous to land on them. The lake is covered near the banks of the islands with large pond lily, the leaves of which lie on the surface of the water so thick, as to cover it entirely for many acres together; on these in the summer season lie myriads of water snakes basking in the sun. Of the venomous serpents which infest this lake, the hissing snake is the most remarkable. It is about eighteen inches long, small and speckled. When you approach it, it flattens itself in a moment, and its spots which are of various colours, become visibly brighter through rage; at the same time it blows from its mouth, with great force, a subtile wind, said to be of a nauseous smell; and if drawn in with the breath of the unwary traveller, will infallibly bring on a decline, that in a few months must prove mortal. No remedy has yet been found to counteract its baneful influence. This lake is of a more dangerous navigation than any of the others, on account of the craggy rocks which project into the water, in a perpendicular direction, many miles together from the northern shore, affording no shelter from storms.

Presque Isle is on the southeast shore of this lake, about lat. 42 10. From this to fort Le Beuf, on French creek, is a portage of $15\frac{1}{2}$ miles. About 20 miles northeast of this is another portage of $9\frac{1}{4}$ miles, between Chataughque creek, emptying into lake Erie, and Chataughque lake, a water of Allegany river.

Fort Erie stands on the northern shore of lake Erie, and the west bank of Niagara river, in Upper Canada. This lake at its northeast end, communicates with lake Ontario, by the river Niagara, which runs from south to north, about 30 miles, including its windings, embracing in its course Grand island, and receiving Tonewanto creek, from the east. About the middle of this river, are the celebrated Falls of Niagara, which are reckoned one of the greatest natural curiosities in the world. The waters which supply the river Niagara rise near 2000 miles to the northwest, and passing through the lakes Superior, Michigan, Huron, and Erie, receiving in their course constant accumulations, at length, with astonishing grandeur, rush down a stupendous precipice of 137 feet perpendicular; and in a strong rapid, that extends to the distance of eight or nine miles below, fall near as much more; the river then loses itself in lake Ontario. The water falls 57 feet in the dis-

* Erie, Erige, or Erike, or the lake of the Cat. *Hennepin.*

tance of one mile, before it falls perpendicularly.* A spectator standing on the bank of the river opposite these falls, would not imagine them to be more than 40 or 50 feet perpendicular height. The noise of these falls, in a clear day and fair wind, may be heard between 40 and 50 miles. When the water strikes the bottom, its spray rises to a great height in the air, occasioning a thick cloud of vapours, in which, when the sun shines, may be seen, morning and evening, a beautiful rainbow. Fort Niagara, built by the French about the year 1725, is situated on the east side of Niagara river, at its entrance into lake Ontario, about 43 20 north latitude.

Lake Ontario is situated between 43° and 45° north latitude, and between 76° and 80° west longitude. Its form is nearly oval. Its greatest length is from southwest to northeast, 160 miles according to Heriot, and its circumference 450 miles. It abounds with fish of an excellent flavour, among which are the Oswego bass, weighing 3 or 4 pounds. Its banks in many places are steep, and the southern shore is covered principally with beech trees, and the lands appear good. It receives the waters of the Genessee river from the south, and of Onondago, at fort Oswego, from the southeast, by which it communicates, through lake Oneida and Wood creek, with Mohawk river. On the northeast, this lake discharges itself through the river Cataraqui (which at Montreal, takes the name of St. Lawrence) into the Atlantic ocean. "It is asserted that these lakes fill once in seven years, and that 1794 was the year when they would be full; but as we are unacquainted with any laws of nature, by which this periodical effect should be produced, we may with propriety doubt the fact."†

About 8 miles from the west end of lake Ontario, is a curious cavern, which the Messisauga Indians call *Manito' ah wigwam*, or *house of the Devil.* The mountains which border on the lake, at this place, break off abruptly, and form a precipice of 200 feet perpendicular descent; at the bottom of which the cavern begins. The first opening is large enough for three men conveniently to walk abreast. It continues of this bigness for 70 yards in a horizontal direction. Then it falls almost perpendicularly 50 yards, which may be descended by irregular steps from one to four feet distant from each other. It then continues 40 yards horizontally, at the end of which is another perpendicular descent, down which there are no steps. The cold here is intense. In spring and autumn, there are, once in about a week, explosions from this cavern, which shake the ground for 16 miles round.

The waters of lake Ontario are dicharged at its northeast end, into the river St. Lawrence, which runs a northeast course of 690 miles, and empties into the gulf of St. Lawrence. It meets the tide upwards of 400 miles from the sea, and is so far navigable for large

* It is believed by the inhabitants in the neighborhood of these falls, that formerly they were 6 miles lower down than they now are, and that the change has been produced by the constant operation of the water. But on a careful examination of the banks of the river, there appears to be no good foundation for this opinion. *Gen. Lincoln.*

† Gen. Lincoln.

vessels. This noble river, if considered as rising at the source of the St. Louis, is at least 2000 miles in length; and, in its quantity of water, is surpassed by no river on the globe, except the Amazon and La Plata. Its size may be estimated from the following fact. In Niagara river, 3 miles from lake Erie, in the fall of the year, its width is 7 furlongs, or $\frac{7}{8}$ of a mile, its average depth 21 feet, and its rapidity 6 miles an hour. The commercial advantages of this river will be great in proportion to the population of its banks. The Indian trade, in a great measure, takes its current down the St. Lawrence, particularly since vessels of a considerable size are constantly building for the navigation of the lakes.*

Nicaragua Lake. This is a large lake in the isthmus of Darien, communicating with the gulf of Mexico by Nicaragua river. It is said by Crutwell, to be 300 miles in circumference. At its west end, it is connected, by a narrow strait, with a small lake, called lake Leon.

Xarayes Lake. This is the largest lake in South-America. It lies in the province of Paraguay, and the river Paraguay, the principal source of the La Plata, passes through it. It is said to be very extensive, but we are not informed of its exact dimensions.

Rivers. The rivers of America, also, in their length, their rapidity, and their quantity of water, will bear a comparison with any of the rivers of the old world. They reach from one side of the continent to the other; and are not, like most of the rivers of Europe and Asia, confined within the limits of a single country.

Amazon. This is the largest and longest river on the globe. It is sometimes called the *Orellana*, more frequently the *Maranon*, but usually the Amazon. Its source is the lake of Lauricocha, near the city of Guanuco, in lat. 11° south; whence issuing, it directs its course south, to lat. 12°, and forming a circuit flows east through the jurisdiction of Juaxa; where, after being precipitated from the east side of the Andes, it proceeds northward, as far as the city of Jaen, in lat. 5 21 south. Thence by a second circuit it runs in a direction a little north of east, till at length it falls into the ocean; where its mouth is of such an enormous breadth, that its southern bank lies under the equator, and its northern nearly 2° north. The distance from its source to Jaen, according to Ulloa, is 200 Spanish leagues, or 730 English miles; and the distance from Jaen to the ocean, following the windings of the river, 900 Spanish leagues, or 3300 miles. Its whole length, therefore, is 4030 miles, and its breadth at the mouth is 150 miles. The Amazon is navigable as far as Jaen; and the tide flows up 600 miles from its mouth. Its principal southern branches are the Yucayale, which rises 10 miles south of Arequipa, in 16 40 south, and, after a course of more than 1000 miles, joins the Amazon in lat. 4 15 south; where its width is so great, as to leave it doubtful which is the principal stream: the Cuchibara, rising near La Paz, in lat 17 10 south, and running a course of 1200 or 1300 miles; and the Madera, which rises near the western source of the La Plata, and is navigable as far south as

* Smyth.

Santa Cruz, in lat. 17 30; its whole course not being less than 1700 or 1800 miles. The chief branches, from the north, are the Napo, which issues from the foot of Cotopaxi, and runs a little south of east, 750 miles: the Putuamayo, which rises in Terra Firma, and runs east and south east, 1100 miles: and the Caqueta, which, also, rises in Terra Firma, and divides into two branches, the western called the Yupara, and the eastern the Negro. The distance between their mouths is about 400 miles. If we may believe M. de la Condamine,* the Negro, after a course eastward, subdivides itself into two branches, one of which running northeast joins the Oronoco, the other is the eastern mouth of the Caqueta.

Missouri. We are not acquainted with any attempt to explore this river, except that made by order of the government of the United States in 1804, 5, and 6. Had that been made by men whose science, judgement, and accuracy could be relied on, we should have no difficulty in giving a complete description of the Missouri. But the latitude and longitude of no one place is calculated; a connected chain of distances is not given; nor are we informed on what authority a great many facts, which the travellers did not witness, are reported: but, throughout the whole work, there is an attempt to swell the size, the length and the difficulties of the river, with the obvious view of increasing the importance of the discoveries made by our travellers. According to their account, the Missouri, near its source, is formed of three branches, which unite at one place. These branches, by the map annexed to their account, rise among the Rocky mountains, the northern one near lat. 48° north; the southern near lat. 42° north; and all near lon. 122° west. The northern branch, the only one our travellers explored, was navigable 248 miles. The distance from the confluence of these streams to the Great Rapids, is 283 miles; thence to the confluence with Plate river, 1945 miles, and thence to the confluence with the Missisippi, 630 miles, making a total of 3106 miles, the distance which the Missouri is navigable above its confluence with the Missisippi. This is 1395 miles from the gulf of Mexico. We ourselves believe, that the length of the Missouri, before it meets the Missisippi, is, probably about 2400 miles. The waters of this river are remarkable for their muddiness and salubrious qualities. These qualities it imparts to the Missisippi.†

The *Missisippi.* This river rises in lat. 47 38 north, and lon. 95 6 west. Its course is southeasterly to the Falls of St. Anthony, about 600 miles.

* If this is not true, M. de la Condamine must, at least have lain *under a very great mistake*, for he says expressly, that he sailed up the Negro, till he arrived at the Spanish Missions on the Oronoco, without going a step by land.

† In a half pint tumbler of this water has been found a sediment of one inch of impalpable marle-like substance. It is, notwithstanding, extremely wholesome and well tasted, and very cool in the hottest seasons of the year; the rowers, who are there employed, drink of it when they are in the freest perspiration, and never receive any bad effects from it. The inhabitants of New-Orleans use no other water than that of the river, which, by being kept in jars, becomes perfectly clear. [*Hutchins.*]

The falls of St. Anthony, in about lat. 45°, received their name from father Lewis Hennipin, a French missionary, who travelled into these parts about the year 1680, and was the first European ever seen by the natives. The whole river, which is more than 250 yards wide, falls perpendicularly about 30 feet, and forms a most pleasing cataract. The rapids below, in the space of 300 yards, render the descent considerably greater; so that when viewed at a distance, they appear to be much higher than they really are. In the middle of the falls is a small island, about 40 feet broad, and somewhat longer, on which grow a few cragged hemlock and spruce trees; and about half way between this island and the eastern shore is a rock, lying at the very edge of the fall, in an oblique position, 5 or 6 feet broad, and 30 or 40 long. These falls are peculiarly situated, as they are approachable without the least obstruction from any intervening hill or precipice, which cannot be said of any other considerable falls perhaps in the world. The country around is exceedingly beautiful. It is not an uninterrupted plain, where the eye finds no relief, but composed of many gentle ascents, which, in the spring and summer, are covered with verdure, and interspersed with little groves, that give a pleasing variety to the prospect.

A little distance below the falls, is a small island of about an acre and a half, on which grow a great number of oak trees, almost all the branches of which, able to bear the weight, are, in the proper season of the year loaded with eagles' nests. Their instinctive wisdom has taught them to choose this place, as it is secure, on account of the rapids above, from the attacks of either man or beast.

From these falls this river is boatable to its junction with the Missouri, a distance of 1030 miles,* in which its course is nearly south. It is not so long, deep, or rapid as the Missouri branch.†

The Missisippi receives the waters of the Missouri in lat. 38 27 north, lon. 89 36 west. Its course thence to the mouth of Red river, a distance of 1068 miles, is nearly S. by W. and from Red river to the gulf of Mexico, a distance of 327 miles, about S. E. the whole distance being 1395 miles.‡ Its mouth is nearly in the same longitude with the mouth of the Missouri. Or the point where it mingles its waters with the Missisippi.

The following table of the distances of various places on this river, is obtained from Schultz's Travels. We believe they are generally accurate.

* Schultz.

† The Missouri being much larger than the Missisippi branch some modern geographers are beginning to give the whole river the name of *Missouri*, which is probably its proper name.

‡ Schultz.

From the Missouri to

	miles.	whole distance.		miles.	whole distance.
St. Louis	14	14	Natchez	142	998
St. Genevieve	73	87	Loftus' heights	55	1053
Kaskaskias river	16	103	Line of demarcation between U. S. and Florida	5	1058
Grand chain of rocks	75	178			
Mouth of Ohio	15	193			
New-Madrid	75	268	Red river	10	1068
St. Francis river	240	508	Baton Rouge	104	1172
Arkansas	107	615	New-Orleans	136	1308
Yazoo	241	856	Fort Balize	87	1395

The Louisiana bank, from the great bend to cape Girardeau, 151 miles, continues generally high, except the interval land on the margin of the river; yet it forms throughout all this distance, only a moderately elevated ridge, from one to four miles from the river. At cape Girardeau it begins to assume the appearance of a rough and mountainous country. This continues 15 miles to the Grand Towers, where the ridge is a perpendicular rocky precipice, 200 feet high. From the Grand Towers to the Grand chain of rocks, 6 miles, the land gradually descends to its general level, which it afterwards continues, without interruption. The Indiana or eastern side, on the contrary, from the great bend to the mouth of the Ohio, is a plain, level country, except a ridge of hills, which commences at the American bottom, 62 miles south of the bend, and terminates near the Kaskaskias, preserving a distance of from 3 to 12 miles from the river.

From the grand chain of rocks to fort Placquemine, 43 miles below New-Orleans, a distance by the river of 1173 miles, the Louisiana bank is but a little higher than the ordinary level of the river. It preserves this height for a space from a quarter of a mile to 2 miles wide; westward of which, throughout this whole extent, is a swampy country of from 20 to 50 miles in breadth. This bank is inundated every spring, and often in the autumn; and the superabundant waters of the river are thus poured out over the whole surface of the swamp, and render it entirely incapable of being inhabited or cultivated. In the narrow strip, also, on the margin of the river, there is scarcely a spot in all this distance, that furnishes a site for a town or a village, which is safe at all times from inundation, New-Madrid, the only town on the western side below cape Girardeau, has been once inundated; and the street intended to front on the river, has been washed away, in consequence of a change in the current. A considerable part of the eastern shore is also inundated, except where it is prevented by the narrow bluffs and headlands. Of these there are 14 between the Ohio and the gulf. The following table exhibits the names, distances, and breadths on the river, where they are known, of these bluffs.

From the great bend to the

	miles.	front.		miles.	front.
Iron banks	293	¼	Grand gulf	53	
Chalk banks	5	¼	Petit gulf	20	
Upper Chickasaw bluffs	154	1	Natchez	77	25
Second Chickasaw bluffs	11	1	White cliffs	20	
Third Chickasaw bluffs	26	1	Loftus' heights	35	
Fourth Chickasaw bluffs	33	10	Little cliffs	103	1
Walnut hills	253		Baton Rouge	24	

The banks on both sides, throughout this distance, are almost universally covered with forest trees. From fort Placquemine south both banks are mere swamps to the river's mouth.

The Missisippi has many islands. There are 23 between the great bend and the Ohio, 33 between the Ohio and the Upper Chickasaw bluffs, 51 between these and Natchez, and 42 between Natchez and New-Orleans. Some of these are 5 or 6 miles in length, but they are all low, and subject to inundations. They are constantly changing their position and appearance, and are generally formed in this manner: A tree, floating down, gets entangled among the branches on the bank, or in sheal water, in the bottom of the river. Other trees, leaves, brush, and the mud of the river lodge against it, and in a short time form a solid bank; the upper end of which is constantly enlarged by fresh accumulations of these various substances, while the lower part is often undermined and washed away by the current. In this way many of these islands are constantly ascending the stream.

The navigation of this river is attended with various difficulties. *Sawyers* are the bodies of trees, which, their roots having become fastened into the bottom of the river, receive from the pressure of the current a regular vibratory motion. They frequently disappear from 1 to 20 minutes, and then raise their trunks, with prodigious swiftness, from 1 to 10 feet above water. They inevitably destroy the boats against which they strike. *Sleeping sawyers* approach only within 12 or 15 inches of the surface, and are still more dangerous. *Planters* are trees firmly bedded in the soft muddy bottom. Some are perpendicular; others incline up or down the stream. They are peculiarly dangerous in the night. Planters and sawyers extend about one third across the river from each side. *Falling banks* are parts of the bank, so undermined by the current that pieces of them, frequently more than an acre in extent, are falling into the stream. Boats are often destroyed by them. They are sometimes dashed in pieces, also, on the upper end of the *wooden islands*, against which they are forced by the excessive rapidity of the current in those places. Beside these dangers, against which it is impossible always to provide by day, and which render the navigation of the river entirely unsafe by night, there is another more formidable, during the freshet, than either. Below cape Girardeau, in consequence of the lowness of the adjacent country, the river has worn outlets, or *Bayaus*, in the banks, through which its waters are impelled with great rapidity. Without the utmost care there is great danger, when a boat is passing one of these bayaus, that it will be

carried away by the current, and lost in the swamps. Several of these bayaus are properly branches of the main river, conducting a part of its waters to the sea. Bayau Chaffalaia commences 8 miles below the mouth of Red river, and pursues a southwest direction to the gulf, into which it empties a part of the waters of the Missisippi near Vermillion bay. In high freshets it is navigable for canoes the whole distance. Bayau Marshac, or, as it is sometimes called, the Ibberville river, is an outlet on the eastern side, 15 miles below Baton Rouge, which separates Florida from Orleans. It is navigable 3 months in the year for boats drawing 5 feet water. The greater part of the remaining 9 months it is absolutely dry. It conveys the waters of the Missisippi, during freshets, in an E. S. E. direction to lake Maurepas; a lake about 12 miles long and 8 wide, and connected, at its eastern end, by a short strait, with lake Ponchartrain, which is about 35 miles long and 25 wide, and generally from 12 to 14 feet deep. This lake has several connections with the bay of Spiritu Santo. Bayau Placquemine lies 8 miles below Marchac, and bayau Fourch 32 miles below Placquemine, both on the western side of the Missouri and communicating with the gulf by several branches. Beside these *Bayaus*, the main branch of the Missisippi has three mouths, or, as they are called, *passes*. The *east pass* is 20 miles long, and has 16 feet water over the bar. It is the pass principally used; and, immediately above the bar, which is very narrow, has water sufficient for a ship of the line. The *south pass* is 22 miles long, and *the south west* 25. They have both about 8 or 9 feet over the bar. Fort Balize stands on a little island at the north side of the east pass. The breadth of the Missisippi at New-Orleans is a mile and a quarter, its depth from 30 to 40 fathoms, and every where from the bar to the mouth of the Ohio, sufficient to float a ship of the line. The *Devil's Race Ground*, is a difficult and dangerous passage, 107 miles above the river St. Francis. The current is very rapid, and the river is crowded with planters and sawyers. The *Grand chain of rocks* extends in little clusters or islands quite across the river. Many of them are visible when the water is low. The spaces between these rocks are large enough to afford a safe navigation to those who know their situation. The *Grand Towers* lie 9 miles above. The river here turns to the east. The west bank is a solid, perpendicular rock, through which the stream has scooped out a bason of 200 or 300 yards in length. In front of this bason stand several perpendicular columns of solid rock, of a circular figure, upwards of 100 feet higher than the surface, which have withstood the force of the current. Forty three miles above these is the *Picket island passage*, which is so full of snags, sawyers, and planters, as to render the navigation very dangerous at low water. These are all the obstructions below the great bend in the Missisippi.

Fogs are very frequent on the Missisippi, and those so thick, as to render objects at the distance of 100 feet invisible. They commonly rise only to the height of 30 or 40 feet.

The usual current of the river is 3 miles an hour. In very low water it is less; in ordinary freshets it is commonly 4, and, in the

highest it never exceeds 5. The passage of ships from the Balize to New-Orleans takes up from 5 to 30 days, while a light wind will carry ships down in 12 hours. From New-Orleans to Natchez the voyage often takes up from 60 to 80 days. Ships rarely ascend above this place. Boats descend from Natchez to New Orleans in one week, but are about 3 weeks in returning. The principal branches of the Mississippi, below its junction with the Missouri, are the Ohio from the east, and the Arkansas and Red rivers from Louisianna.

St. Lawrence. A description of this river was given in our account of Lake Ontario.*

La Plata. This river is formed by two others, the Paraguay and the Parana. The Paraguay, the principal stream, rises in about lat. 12° S. runs through the large lake of Xarayes, and, after passing the city of Assumption, receives from the west the Pilcomayo, which rises near Potosi. It unites its waters with those of the Parana, about 750 miles from its mouth. Below this confluence it bears the name of the La Plata, or Silver river, which it received from Sebastian Cabot, who, in 1526, sailed 700 miles up the Parana. Before that period it had been called the Solis, after its discoverer Juan de Solis, who arrived at its mouth in 1515. The La Plata receives the Salado and several other large rivers from the west, and in lat. 34° the Uraguay, a much larger stream, which rises in Brazil, in lat. 26 30 S. The La Plata is navigable for large vessels as far as Assumption, which is erroneously stated, by the American Editor of Pinkerton, to be 400 leagues. The true distance is 267† Spanish leagues, or 977 miles.

Oronoco. The source of the Oronoco is supposed to be in the Ibirinoko mountains, N. W. of lake Parima, in lat. 5° N. and long. 65° W. Its course, for the first 300 miles, is from N. to S; and, where it turns westward, lake Parima is at the distance of about 180 miles east. About 150 miles from this turn it receives, from the south, the Casiquiari in lat. 3 30 N. In lat. 2° and about 65° W. the Casiquiari receives the waters of an arm of the Negro. This river, as has been already mentioned, is the northern branch of the Coqueta. The Coqueta, near the equator, divides into the Yupura and the Negro. The Yupura pursues a S. E. course to the Amazon. The Negro runs a N. E. direction, till about 66° W. There it divides a little above Fort Charles, a Fort on the frontiers of Brazil and Carraccas. The smaller stream runs north, and empties into the Casiquiari. The principal stream empties into the Amazon. From the Casiquiari, the Oronoco continues its course westward as far, as St. Fernando, where it receives, from the S W. the Guaviari, a very considerable river. Here it turns northward, and after receiving the Vichada from the west, pours its waters down the cataracts of Atures. These cataracts completely obstruct the navigation of the river. They lie, according to Depons, 740 miles from the mouth of the Oronoco, and 760 from its source, in lat. 5 40 N; and long. 68° W. Below the cataracts, 90 miles, it is en-

* See p. 120, 121. † Ulloa, II. 187, 188.

larged by the waters of the Méta, one of its principal tributaries, 500 miles in length; which rises in western Terra Firma, and is navigable as far as Maruco, about 370 miles. Below this, 140 miles, the Oronoco receives from the west, the Apara, a river, which rises in western Terra Firma, near St. Christopher's, at no great distance from the S. W. extremity of lake Maracaybo. The length of the Apura is 520 miles, 120 S. E. and 400 E; and in this distance, it is supplied by many large rivers from the province of Venezuela.

The Apura is very large and deep; is navigable about 200 miles: and is even more rapid than the Oronoco, into which it empties its waters by many mouths. From the Apura to St. Thomas, the capital of Spanish Guiana, about 250 miles, the Oronoco receives no large rivers except the Caura, and the Caucapana, both from the S. and none below St. Thomas, but the Caroni. About 150 miles below St. Thomas and 120 from the sea, it divides itself like the Nile, into a great number of branches, and discharges its waters into the ocean by 50 mouths. The two most distant of these are not less than 180 miles apart. Only 7 however are navigable; and but one of these, the southern, called the *Ship's Mouth*, for vessels of more than 200 tons. This last is near 30 miles wide, and is formed by Point Barima in lat. 8 45 N. and the isle of Cangrejos. The banks of the Oronoco for 120 miles, and the islands in its Delta, are all low, boggy lands, in most places liable to inundations. The Goarauno Indians have found here a secure retreat.

M'Kenzie's River. This river was described in our account of Slave lake and its waters.

Columbia River. The geograghy of this river is but imperfectly known. It empties into the Pacific ocean in lat. 46 40 N. long. 124° W. Bad river, its most northern branch, heads among the Rocky mountains, in lat. 54 24 N. lon. 121° W. in a small lake, about 2 miles long, and only 817 yards from the source of M'Kenzie's river. This is a small stream, and runs only 40 miles before it falls into a much larger branch from the east. About 40 miles lower down, this is joined by the Tacoutche-Jesse, a still larger stream from the S. E. which here is 16 feet deep, and half a mile wide: and gives its name to the whole river. M'Kenzie followed the united stream 150 miles farther, till he came to lat. 52 30 N. Thence he returned about 70 miles, and went across the country, and down Salmon river to the ocean. The whole distance from the mouth of the Columbia to the source of Bad river, cannot be less than 1000 miles, nor to the source of the Tacoutche-Jesse probably less than 1200. Captains Lewis and Clarke sailed down the Columbia and its branches 640 miles to the ocean. But we do not know in what latitude they embarked upon it. The Columbia is navigable for sloops as high, as the tide water, 183 miles; and, for vessels of 300 tons burthen, 125 miles, to the entrance of the Multnomah, a large southern branch of the Columbia, which is said to rise on the confines of New-Mexico.

Colorado. Hardly any thing is known of the geography of this river. According to Humboldt, it rises in lat. 40° N. and probably in about long. 106° E. in the mountains of New-Mexico. It is formed of two streams, the Nabajoa, the western, and the Zaguananas, the eastern. The Zaguananas is made up of the Raphael and the Xavier. In lat. about 35° N. it receives the Gila, a very large river from the S. E. and empties into the gulf of Mexico in about lat. 32 30. The whole length of the Colorado cannot be less than 1000 miles.

Bravo. Of this river we can only say, that it rises in about lat. 40° N. 40 miles east of the head of the Colorado; that it pursues a southeasterly course, till it falls into the gulf of Mexico, in lat. 26°; that its length is probably more than 1400 miles; and that it is claimed by the United States to be the western boundary of Louisiana.

Points of communication between the two Oceans. No less than nine of these are mentioned by Baron Humboldt, as having, at different times, attracted the attention of statesmen and merchants. He arranges them according to their geographical position, beginning with the most northern and following the coasts to the south of the island of Chiloe. The ninth exists in imagination. We shall abridge his account of the others, and make such additions as our information will warrant.

1. From the mouth of the Columbia to the source of Bad River, lat. 54 24, N. long. 121°, W. is not less than 1000 miles. Of this distance Bad river runs only 40 miles, and is extremely difficult of navigation. In it M'Kenzie was wrecked. Hence its name. A more ready way of arriving at the source of Bad river is to enter Salmon river, in lat. 52 20, long. 128.2, and ascend it about 100 miles; thence by an easy land journey of 240 miles N. E. till you strike the Tacoutche-Jesse, in lat. 53 30, long. 123°; thence up that river, 120 miles, and up Bad river to its source 40 miles. The distance from this to Peace river is 817 yards, over a very easy portage, so that the head of Peace river, by this course, is only 500 miles from the ocean. Hence the course is down Peace river to the mouth of Elk river, 850 miles; up that river to the lake of the Hills, 20 miles; in that lake 18 miles; up Elk river again 140, to Portage la Loche; thence, following the meanderings of the waters, to Portage de Traite, 430 miles; thence down the Missinipi, to Fort Churchill, in lat. 59°, a distance probably not less than 500 miles. The distance of the mouth of the Columbia from Fort Churchill, on this course, is not less than 3120 miles, with a water communication the whole way, except one portage of 817 yards, and another, at Portage la Loche, of 13 miles. That of Salmon river is 2620 miles from Fort Churchill; 240 of which are by land, besides the two portages already mentioned.*

* It ought here to be remarked, that from Portage de Traite there are two other communications with the Atlantic. Both proceed from that Portage through Beaver and Pine Island Lakes, down the Saskatchawine 240 miles to lake Winnipec. Thence the first proceeds across the northern end of that lake 60 miles, and down Nelson's river not less than 500, to York Fort; making its

Mr. M'Kenzie very justly observes, that the government, which should open this communication between the two oceans, by forming regular establishments in the interior of the country and at the extremities of the rivers, would get possession of the whole fur trade of North-America, from lat. 48° N. to the pole; excepting a part of the western coast, which has long been included in Russian America.*

2. Under the 40th degree of latitude, the head waters of the Colorado and the Bravo are separated by a mountainous tract of only 36 or 40 miles in breadth. The period is probably very distant, however, when any use will be made of this channel of communication.

3. Immediately west of the promontory of Yucatan is the peninsula of Tehuantepec. In this peninsula, under the 16th degree of lat. is the head of the river Passo, the principal source of the Huasacualco, which empties into the bay of Campeachy. At a small distance from the Passo rises the Chimalapa, which empties into the Pacific ocean. A road was completed in 1800, from the port of Tehuantepec to the Huasacualco, and the most precious merchandize is sent in this way to Vera Cruz, and from thence to Europe.

4. The great lake of Nicaragua empties, by the river St. Juan, into that part of the Caribbean sea, called the gulf of Darien. The communication with the Pacific ocean would be effected, by cutting a canal across the isthmus, which separates the lake from the

distance from the mouth of Salmon river, 2920 miles; and from the mouth of the Columbia 3420.

The other proceeds down lake Winnipec, 280 miles, up Winnipec river, lake of the Woods, Rainy river, and Rainy lake, to the source of Winnipec river, 690 miles; across the grand Portage, 10 miles; coastwise on lake Superior to the Falls of St. Mary, 480(1) miles; across the northern shore of lake Huron, as far as French river, 200 miles; up French river and lake Nipisingue 115 miles, to the head of Little river 10 miles; to the mouth of that river, where it joins the Utawas, lat. 46 45, long. 78 45. 45 miles; to the mouth of the Utawas 390 miles; and to Montreal 10 miles. The whole distance on this route, from the mouth of Salmon river, to Montreal, is 4590 miles, and from the mouth of the Columbia, 5090 miles.

* Columbia river opens another channel of communication, beside those already mentioned; but the information we possess does not authorize us to speak confidently of the distance. According to Captain Clarke's letter, by going up the Columbia 413 miles, up Lewis river 154 miles, and up the Kooskooske 73 miles, we arrive at the western declivity of the Rocky mountains. The distance thence to the Rapids of the Missouri is 340 miles by land. Of this distance 200 miles is along a good road, and 140 over tremendous mountains, which, for 60 miles, are covered with eternal snows. A passage over these mountains is, however, practicable from the last of June, to the last of September. The small price of horses, among the Rocky mountain Indians, and those west of them, very much reduces the expense of transportation. Along the three rivers west of these mountains, only three portages are necessary. The distance of the rapids of the Missouri, from the mouth of the Mississippi in the gulf of Mexico, is, according to Captain Clark, 3775 miles; making the whole distance from the mouth of the Columbia, to the mouth of the Mississippi, 4755 miles.

(1) *M'Kenzie, I.* 49.

gulf of Papagayo, or that which separates it from the gulf of Nicoya. The length of the first canal would be 4 marine leagues or 14 miles; that of the second 7 marine leagues or 24 miles. Which of these courses is the least mountainous has not been ascertained. Dampier says, there is no chain of mountains across either. Nicaragua lake, at its western end communicates with lake Leon, on which is the city of Leon. At no great distance from this city is the river Tosta, which empties into the Pacific ocean. From Leon to the port of Relaexo is, according to Dampier, 30 miles, across a country flat and covered with mangle trees. The coasts on both oceans, however are extremely subject to hurricanes and tempests.

5. On the isthmus of Panama the river Chagre, which is nearly a quarter of a mile wide at its mouth, runs from the town of Cruces to the gulf of Darien, a distance of 43 miles. This river is difficult of ascent. From Cruces to Panama there is a road 15 miles long, over hills of considerable height, in which merchandize is transported on the backs of mules.

6. South of Panama lie the bay and port of Cupica. From this bay to the waters of the river Naipi, is 15 or 20 miles, across a country, throughout the whole distance, quite level and proper for a canal. The Naipi is navigable, and enters the Atrato a little below the village of Zitara. The Atrato enters the gulf of Darien, and is entirely navigable. The ground between Cupica and the mouth of the Atrato, says Humboldt, is the only spot where the chain of the Andes is entirely broken.

7. In the interior of the province of Choco, the small ravine of *Raspadura* unites the neighbouring sources of the St. Juan and the Quito. The St. Juan empties into the Pacific ocean; the Quito, with the *Andageda* and the *Zitara*, forms the Atrato. A curate of the village of Novita in 1788, employed his parishioners to dig a small canal in the ravine; by which, when the rains are abundant, canoes loaded with cocoa *pass from sea to sea*. The mouths of the St. Juan and the Atrato are more than 200 miles apart.

8. In lat. 10° S. the head of the Huanuco, which runs into the Guallaga, a large tributary of the Amazon, is only about 15 miles from the source of the Huara, which flows into the Pacific. The Xauxo also, a tributary of the Ucayale, has its rise near the source of the Rimac. A canal between these rivers is not practicable; but were good roads laid out from Lima to the Huanuaco, the productions of Peru, in five or six weeks, would arrive at the mouth of the Amazon; while a passage of four or five months is requisite to take them, round cape Horn, to the same point.

If a canal is ever cut between the two oceans it will probably be at the third, fourth, or fifth of these points. Were it to be made narrow at first, it would probably soon be widened by the force of the Gulf Stream. In time, its width might so far increase, as to prevent the nation, which owned the adjoining country, from commanding the passage. By it, the productions of the islands and coasts of the Pacific ocean would be brought 2000 miles nearer

Europe; and 4000 nearer the United States. Eastern Asia would cease to be inaccessible, and the isthmus of Darien would no longer prove the bulwark of the independence of China and Japan.

Mountains. The mountains of America form two distinct ranges, *the eastern*, and *the western*. The eastern is the Allegany range; it bears no proportion to the western in length or elevation; and, as it is contained entirely within the United States, it will be described under that head.

The western is unequalled by any on the globe in its extent; in the height of its summits; and in the number and terrible nature of its volcanoes. It commences near cape Isidro, in lat. 54° south, and, pursuing a course somewhat west of north, preserves, in South-America, a general parallelism with the western coast: after running the whole length of South-America, it passes through the isthmus, traverses the extent of the Mexican empire, and gradually deviating from the western coast, continues its original direction, till, in lat. 70° north, it reaches the Northern ocean. It receives different names in different parts of its progress. In South-America it is called *the Andes;* in Mexico, *the Cordilleras of Mexico;* and, farther to the north, *the Rocky mountains.* Its whole course is considerably west of north. Its longitude, at the southern extremity, is 73° west; at the isthmus, 80°; in the northern part of Mexico, 108°; and, at the Northern ocean, 135° west. Its average distance from the Pacific ocean, in South-America, is 150 miles. It thence passes through the isthmus of Panama, and the provinces of Veragua and Nicaragua, sometimes approaching the Pacific, and sometimes the gulf of Darien. From the western end of lake Nicaragua it runs along the western coast, as far as the bay of Tehuantepec. In the province of Guaxaca, between the rivers Chimalapa and Huasacualco, it occupies the centre of the isthmus. Between latitudes 18½° and 21° north it takes a more northerly direction, and approaches the eastern coast.* From lat. 21° to 32° its general course is about N. W. by N. and through this tract it observes a general parallelism with the western coast. In lat. 32° the coast bears away westward, and the range, from that parallel, pursues a direction about N. N. W. to the Frozen ocean. At least 124 degrees of latitude lie between its northern and southern extremities; and not less than 62 degrees difference of longitude. Its length, from cape Isidro to the isthmus, is not less than 4600 miles; from the isthmus to the northern part of Mexico, 4400; and from thence to the Frozen sea, 2500; making a total of 11,500 miles. The following rivers in North-America, viz. M'Kenzie's, Columbia, Nelson's, Missouri,† Bravo, and Colorado; and, in South-America, the Oronoco, Amazon, and La Plata, with their principal branches, all take their rise among these mountains. The range itself is not broken by either of them.

Andes. The average distance of the western skirts of the Andes from the Pacific ocean is about 150 miles.‡ The Andes of Chili are

* Humboldt, I. 47. † M'Kenzie, II. 300.

‡ This distance, in Patagonia, has never been ascertained. In the southern part of Chili it is little less than 300 miles; from lat. 32° to 37° south, not more

140 miles in breadth.* Throughout the greater part of Peru they form a double chain. The western ridge comprehends Pachinca, Ilinissa, Chimborazo, &c.; the eastern, Cotopaxi, the Altar, Sanga, &c. Chimborazo is said to be the highest summit in the whole range. It is about 100 miles south of Quito, and 10 north of Riobamba. According to the French mathematicians, its height is 3217 toises, or 20,584 feet, above the level of the sea; about 5000 feet higher than Mont Blanc. The height of Cotopaxi, is 3126 toises, or 19,990 feet; and that of Pachinca, 2487 toises, or 15,929 feet.† These eminences are all near Quito. In Chili the summits Manflos, in lat. 28 45 south, Tupungato in 33 24, Dercabezado in 35°, Blanquillo in 35 4, Longavi in 35 30, Chillan in 36°, and Corcobado in 43°, are asserted by naturalists to be more than 20,000 feet above the level of the ocean.‡ We believe, however, that none of them have been measured. Most of the high summits are found between the equator and 4° south, and in the middle and southern parts of Chili. In Terra Firma, the southern parts of Peru, and the northern parts of Chili, few summits are found of any note. In the northwestern parts of Terra Firma, on the banks of the Chagre, they form mountainous land of not more than 1200 feet in height.

Throughout their whole extent, in South-America, the chain is every where broken and interrupted by crevices, like open furrows; and the plains on the ridge are of small extent. These plains, however, are often of an immense height. Several in the province of Quito are from 5000 to 6000 feet; that on which the city of Santa Fe de Bogota is built, is 8413; that of Caxamarea, in Peru, 9021 feet; and that of Antisana, 13,451 feet.§

According to Humboldt, there are three remarkable chains connected with the Andes, and proceeding from them from west to east: *the northern*, or that of Venezuela; *the middle*, or that of Parima; and *the southern*, or that of Chiquitos.

Northern. The northern contains the loftiest summits. It branches off from the Andes of Quito, and pursues a N. N. E. course to the province of Caraccas. Through that province its course is nearly east, to the gulf of Paria, near the island of Trinidad. Its ordinary breadth is 50 miles, in some places it is 70 miles broad, and never less than 35. Its distance from the coast of Caraccas is not very great; and throughout the province the greater part of the range is capable of being cultivated and inhabited. The highest summit, in that province, is the eastern Pichaco, near the town of Caraccas, whose height is 7668 feet; the next Tumeriquiri, about 5610 feet high.‖ The highest mountain in the whole of this range, is the Nevada of Merida, in western Terra Firma, 2350 toises, or 16,037 feet. The average height of this range, according to Pinkerton, is from 4000 to 5000 feet.

than 120; and, from lat. 24° to 32° south, 210.(1) In Peru, it varies considerably. Near Lima it is about 120 miles; near Quito, about 150.

* Molina, l. 6. † Ulloa, l. 424 ‡ Molina, l. 6. § Humboldt, l. 38—41.
‖ Depons, l. 51—52.

(1) *Molina, I.* 1.

*Middle.** This range is broader, but less lofty than that of Venezuela. It branches from it near Popayan, and stretching from west to east, from the sources of the Guaviari, appears to extend to the northeast of that river, forming the cataracts of Maypura and Atures in the Oronoco, lat 5°. Thence it continues its course, with a breadth sometimes of 120 leagues, northeast to the river Caronis; thence eastward by the lake of Parima; where its breadth is 60 leagues, and where it separates the branches of the Oronoco and the Essequebo from those of the Amazon; and thence southeastward to the Atlantic. The volcano Duida, the highest summit in the range, in lat. 3 13 north, not far from Esmeralda, is 8480 feet in height.†

Southern. The southern range, or that of Chiquitos, unites the Andes of Peru and Chili with those of Brazil and Paraguay; and stretches from La Paz, Potosi, and Tucuman, through the provinces of Maxos, Chiquitos, and Chaco, towards the government of the mines and of St. Paul in Brazil. The highest summits appear to be between 15° and 20° south. Very little, however, is known respecting them.

Parallel with these three great ranges there are, according to Humboldt, three very extensive vallies; that of the Oronoco, that of the Amazon, and the Pampas of Paraguay, all opening on the east, but shut on the west by the Andes. The valley of the Amazon, which lies between the middle and southern ranges, is covered with forests, so thick that the rivers alone form roads; while that of the Oronoco and the Pampas are savannahs, or grassy plains, with a few scattered palms. The Pampas extend from lat. 19° to 52° south.

Cordilleras of Mexico. The construction of this chain is very different from that of the South-American Andes, as well as from most other mountains. It is not, like them, a chain of summits rising out of a plain, and often broken by intervening vallies. Here the ridge of the mountains itself forms the plain, and it is the direction of the plain which designates that of the whole chain; while the summits are either dispersed on the plain, or ranged in lines, which bear no relation of parallelism with the direction of the Cordillera. In Peru the intervening vallies prevent the inhabitants of the mountains from travelling in carriages; while carriages roll on this range as far as Santa Fe in New-Mexico, a distance of more than 1700 miles. This plain extends from 18° to 40°, and is there said to decline insensibly towards the north. The ascent of this plain from either ocean is gradual, and its elevation is from 6000 to 8000 feet above the level of the sea. The highest summits in the Cordillera, are Popocatepetl, a volcano, in lat. 18 36 north, and lon. 98 33 west, 17,716 feet; Citlaltepetl or the Pic d'Orizaba, a volcano, in lat. 19 2 north and lon. 97 15 west, 17,371; Itztaccihuatl, or the White Woman, in 19 10 north, 98 35 west, 15,700

* This range is called, by Depons, the mountains of Santa Fe; by Pinkerton, the range of Paramos.

† Pinkerton.

feet; Toluca in 19 12 north, and 99 26 west, 15,159 feet; and Nauhcampatepetl 13,514 feet, above the level of the sea.

To the north of the city of Guanaxuato, which lies in lat. 21° north, and lon. 100 55 west, the Cordillera divides into three branches. The eastern runs in the direction of Charcas and Real de Catorce, and loses itself in New-Leon. The western retains a considerable height, as far as Bolanos; when it sinks rapidly, but regains a considerable height in lat. 30°. It terminates at the river Gila. The central is the principal branch, and is from Guanaxuato, the continuation of the Table Land of Mexico. It passes between the Bravo and the Colorado of California, and loses itself in the unexplored regions of the north.*

Rocky Mountains. In the latitude of Cook's Entry these mountains begin to be parallel with the western coast, and continue so, as far south as the mouth of Columbia river. There they deviate eastward, and decline considerably in their height. During their parallelism with the coast, they extend from 6 to 8 degrees of longitude in breadth. Along their eastern skirts is a narrow strip of very marshy, boggy, and uneven ground, the outer edge of which produces coal and bitumen. M'Kenzie discovered this bog as far north as 66°; and, in his second journey, in lat. 56° north, lon. 120 west. Mr. Fidler observed the same at the source of the south branch of the Saskatchawine, in lat. 52° north, lon. 121 30 west. Next to this narrow belt are immense plains or meadows commencing at the junction of the river of the mountain, with M'Kenzie's river, in about lat. 62° lon. 123°, widening as they continue east and south, till they reach the Red river at its confluence with the Assiniboin; whence they take a more southern direction, along the Missisippi, towards Mexico. Adjoining to these plains is a broken country composed of lakes, rocks, and soil.† We do not know whether the height of either of the summits of the Rocky mountains has been ascertained.

There is one extensive branch of the Rocky mountains, which has not yet received a name. It separates from them in lat. 54° north, lon. 121° west, at the sources of the Tacoutche-Jesse and Peace rivers. It pursues an eastern direction, dividing the Saskatchawine from the Elk, till it passes Portage de Traite forming the banks of the Missinipi or Churchill river, in 55 25 north; thence it bears E. S. E. as far as Nelson's river; thence S. E. to lat. 50°, lon. 89°, striking Hill's, Severn, and Albany rivers. Here an angle stretches from it, about S. W. till it passes north of the source of the Missisippi. The principal range keeps a course south of east, to the source of the river Utawas; thence it runs nearly N. E. to the coast of Labrador, dividing the waters of Hudson's bay from those of the river and gulf of St. Lawrence.

From the head of Beaver river, on the west, in about lat. 54°, a fork proceeds from this branch, between the waters of Elk river and the Missinipi, forming Portage la Loche, and continuing to lat. 57 15, dividing the streams which run to Hudson's bay, from those

* Humboldt, Book I. Chap. 3d. † M'Kenzie, II. 299—301.

which fall into the North sea; thence its course is nearly north, to beyond lat. 65°; when an angle runs from it south of west, passes to the north of Slave lake, and strikes M'Kenzie's river near lat. 64°. These branches are all connected more or less remotely with the Rocky mountains. They are generally low and are not known to contain any very lofty summits.*

Mountains of California. It ought also to be mentioned here, that a range of mountains commences near cape St. Lucas, the southern extremity of the peninsula of California, and runs very near the coast as far north as Cook's Inlet, and probably much farther. This range is not known to have any high summits below the latitude of Cross Sound. There the range rises, and, according to La Peyrouse, soon gains a height of more than 10,000 feet. Mount St. Elie, or Elias, the highest in the chain, is, according to the Spanish navigators, who measured it with great care, 17,875 feet in height, above the level of the neighbouring ocean.† It is visible 60 leagues off at sea.

NORTH-AMERICA.

EXTENT. HISTORY OF SETTLEMENTS. POLITICAL DIVISIONS.

Extent. NORTH-AMERICA is separated from South, by an imaginary line, crossing the western extremity of the isthmus of Panama, and dividing the jurisdictions of Darien and Veragua. Its most southern parallel is 7 30 north; how far it extends north has never been ascertained. If Greenland is a part of the continent, it lies, according to the best maps, between lat. 82° and 7 30 north, and between lon. 4° and 168° west of Greenwich. Its greatest length, from north to south, is 5178 miles; and its breadth, from the promontory of Alaska, to the eastern coast of Labrador, is 4570; while from cape Prince of Wales, to the eastern coast of Greenland, as it is laid down by Arrowsmith, is 164 degrees of longitude, which in an oblique direction, is not less than 4820 miles.

History of Settlements. Under this article we shall mention little more than the eras when they took place, the leaders of the colonies, and the nation to which they belonged.

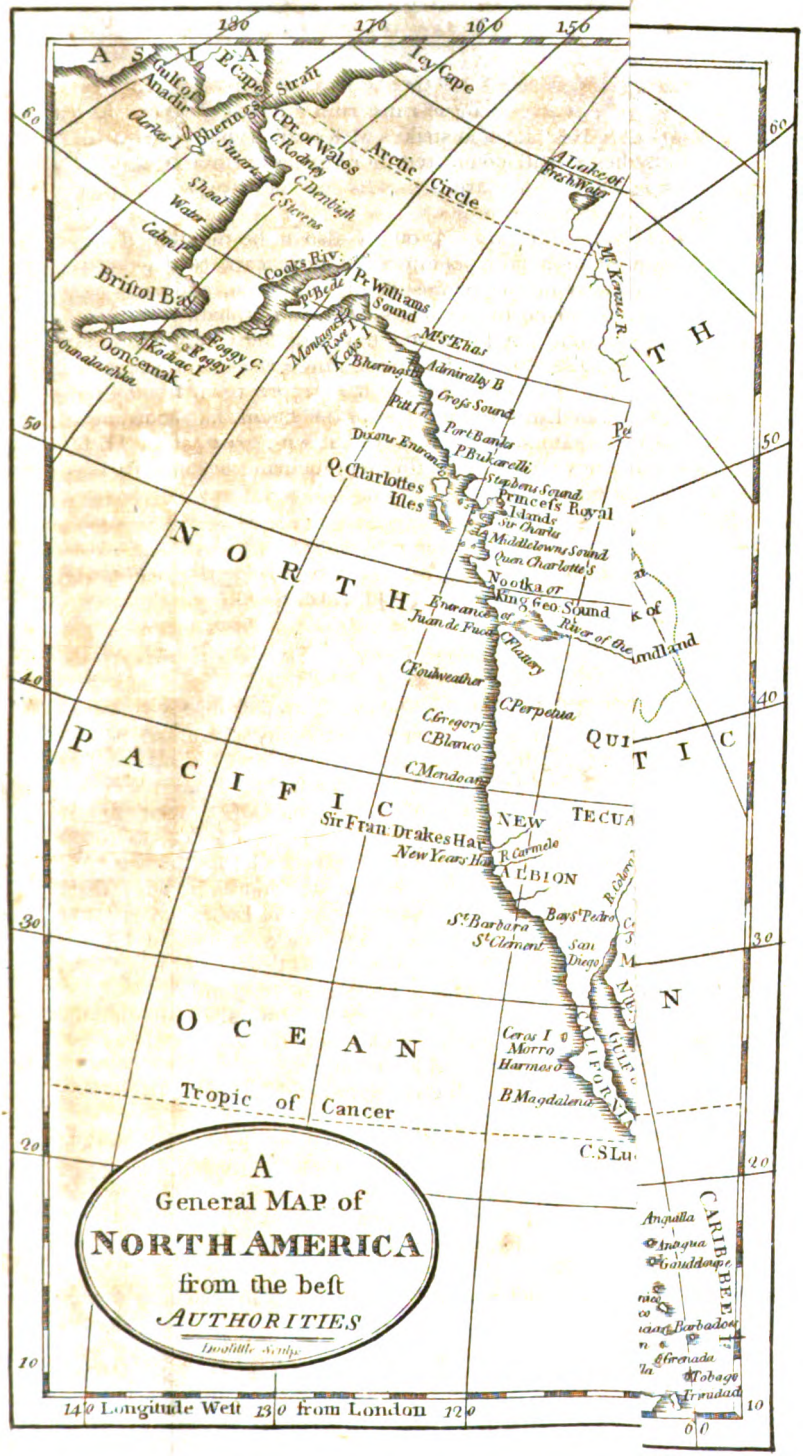
The settlements in Iceland, Greenland, and Labrador have been already mentioned.

1521. Mexico, the most powerful kingdom in North-America, was first subdued. Cortes, at the head of 617 Spaniards, commenced the conquest in 1519, and completed it in about two years. Ever since it has belonged to the Spaniards.

1539. An attempt was made by Ferdinand de Soto, governor of Cuba, to settle Florida.

1607. Canada was settled, and Quebec fortified, by a colony of Frenchmen, under the command of De Mons.

* M'Kenzie, II. 298, 299. † Humboldt, I. 48.



The same year two ships, with 100 men, under the command of George Popham and Raleigh Gilbert, sailed to the mouth of the river Kennebec, and began a settlement. They built a fort on the peninsula called fort St. George.

The same year a settlement was begun at Jamestown in Virginia, under the direction of capt. Newport and Mr. Edward Wingfield.

1610. Conception Bay, on the island of Newfoundland, was settled by 40 English planters under John Guy.

1620. Plymouth in Massachusetts was settled by a part of Mr. Robinson's congregation, under Messrs. Carver, Bradford, Winslow, Standish, &c.

1623. An English colony was planted at the mouth of the Piscataqua, by capt. John Mason.

1627. A colony of Swedes and Finns landed at cape Henlopen, and made settlements on both sides of Delaware bay and river in Delaware, New-Jersey, and Pennsylvania.

1628. Capt. John Endicot, with his wife and company, settled Salem in Massachusetts. A part of the company, the same year, settled Charlestown.

1629. The island of Manhattan was settled by the Dutch, under the direction of governor Van Twiller.

1634. Maryland was settled this year, by a colony of English Roman Catholics, under the guidance of lord Baltimore.

1635. During this year two settlements were made in Connecticut, one at Windsor and Hartford, by a small colony, which went, by land, from Boston and vicinity; the other at Saybrook, under the command of Mr. Fenwick.

The same year Rhode Island was settled by Mr. Roger Williams, with a colony of malecontents from Massachusetts.

1669. This year South-Carolina was settled by an English colony, under governor Sayle.

1682. William Penn founded the colony of Pennsylvania. He and his adherents belonged to the society of Friends.

1728. North-Carolina was erected into a separate government.

1732. Georgia was settled by an English colony under general Oglethorpe.

1764. Vermont was settled by emigrants from Connecticut and Massachusetts.

1773. Kentucky was settled by a party under col. Daniel Boon.

1789. Tennessee became a separate government.

1800. The Mississippi Territory was made a separate government.

1803. Ohio was erected into a state.

1811. The territory of Orleans was admitted into the number of the states of the union.

Political Divisions. North-America may be considered under the following divisions, *Russian America*, *Danish America*, *British Possessions*, *United States*, *Spanish Provinces*, and *Aboriginal America*.

Russian America comprehends the island of Spitzbergen, on the east; and the promontory of Alaska, the islands which are near it, and the coast between Portlock harbor and Behring's straits, on the west.

Danish America comprises the island of Iceland, and the country of Greenland.

The British Possessions in North-America are the following,

New-Britain	Newfoundland I.	Cape Breton I.
Upper Canada	New-Brunswick	St. John's I.
Lower Canada	Nova-Scotia	

The United States comprehend

District of Maine	Pennsylvania	Virginia
New-Hampshire	Michigan Territory	Kentucky
Vermont	Ohio	North-Carolina
Massachusetts	Territory north of the	Tennessee
Rhode Island	Illinois river	South-Carolina
Connecticut	Upper Louisiana	Georgia
New-York	Indiana Territory	Missisippi Territory
New-Jersey	Maryland	Orleans
Delaware	District of Columbia	

Spanish America includes

East-Florida	New-Mexico	Old-Mexico
West-Florida	California	

Aboriginal America includes the territories lying north of New-Mexico and Louisiana, west of the British possessions, and east of the Russian.

Arrangement. In describing these various countries we shall have a general regard, in our arrangement, to their geographical situation. Spitzbergen lying farthest to the northeast, we shall take it in connection with the rest of Russian America, and give them the first consideration. Danish America will follow; and the others in the order, in which they are arranged above, except a small variation in the British possessions. We give to Aboriginal America the last place, because it is very difficult to assign its limits, before those of the other countries have been ascertained.

RUSSIAN AMERICA.

THOSE parts of North-America, which are claimed by the Russian empire, are the islands of Spitzbergen, lying northeast of Greenland; and the Northwest Coast, from Portlock harbor to cape Prince of Wales, in Behring's straits.

SPITZBERGEN.

SITUATION AND EXTENT. NAME. DISCOVERY. CLIMATE AND SEASONS. FACE OF THE COUNTRY. HARBORS. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. GENERAL REMARKS.

Situation and Extent. THE islands of Spitzbergen consist of one large island and numerous smaller ones on various parts of its coast. They lie in the Frozen ocean, according to the maps, about 12 degrees of longitude, or 150 miles, east of Greenland, and 5 degrees of latitude from the North cape, from which their direction is N. N. W. and their distance more than 400 miles. The main island is between lat. 76° and 80 7 north; and between 9° and 20° east. Its length, from South cape to Verlegan Hook, is about 300 miles; its greatest breadth not more than 140.

Name. Spitzbergen is a Dutch word, signifying *sharp mountains.* This name was given it in 1595, by William Barentz, a Dutchman, in consequence of the many sharp and rocky mountains with which it abounds. These islands have been often, but improperly, called East-Greenland, as that name belongs to the eastern shore of Greenland.

Discovery. Sir Hugh Willoughby discovered Spitzbergen in 1553. He took it, however, for a part of the continent of America. Barentz and Cornelius visited it in 1595, and unfairly claimed the honor of the discovery. In 1773, captain Phipps, afterwards lord Mulgrave, sailed along the whole western and northern coasts, and thus determined it to be an island.

Climate and Seasons. The longest day in Spitzbergen is between 4 and 5 months, and the longest night of equal length. During the continuance of its night, from the latter part of October, to the beginning of February, the weather is so intensely cold, as to render the country almost uninhabitable. In 1634 seven Dutch seamen were left on the island, with their own consent, to pass the winter there. Not one of them was found alive in the following spring. Several instances of a similar kind occurring about that time, the island was believed not to be habitable. Eight English sailors, however, who were afterwards left there by a whale ship, survived the winter. In 1743 four Russian sailors were shipwrecked on the eastern shore of Spitzbergen; and, of the four, three lived to return, after a residence of 6 years and 3 months. The common heat in the summer is about 50° of Fahrenheit, though in the sun it is frequently as high as 89°. In the winter the snow often falls as hard, and as minute as fine sand.

Face of the Country. These islands have never been explored. The coasts, in most places, are inaccessible. They are formed of high, barren, black rocks, without the least mark of vegetation; in many places bare and pointed; in others covered with snow. Capt. Phipps saw no springs or rivers, the water, which is abundant, being all produced by the melting of snow from the mountains. In the vallies, between the high mountains in the northeast part of the

island, are large bodies of ice, called *Icebergs*. Their face towards the sea is perpendicular, and of a very lively light green color. One was observed by capt. Phipps 300 feet high, with a cascade of water issuing from it.

Harbors. Schmelrenburg harbor lies on the western side, in lat. 79 44, lon. 9 51 east. It is well sheltered from all winds, is 13 fathoms deep, and has a sandy bottom. Close to this harbor lies Amsterdam Island, where the Dutch used formerly to boil their whale oil. They attempted many years since to settle a colony on it; but all the people perished, owing not to the severity of the weather, but to the scurvy. Magdalena bay and Hamburgher's bay lie also on the west side, between lat. 79° and 80°. On the northern shore is the harbor of Vogel Sang. The most northerly point of Spitzbergen is the Seven Islands, in lat. 80 30. Capt. Phipps discovered that a current runs along the west coast, half a knot an hour, north. It is supposed to be a branch of the gulf stream.

Mountains. There are many summits on the island, but none of very great height. The height of one on the coast, in lat. 79 44, was found by capt. Phipps to be 1503 feet. He saw no appearance of present, or remains of former, volcanoes. Many of the mountains on the coast are, however, much higher. Some of them are visible 30 marine leagues off at sea. In the surrounding ocean there are also many mountains of *ice*. They are formed in this manner. A large field of ice, driven by the wind or a current against a smaller field, forces it out of the water, till it lodges upon the superior surface; and the height is afterwards increased by the snow and the spray of the sea. Some of them rise 1500 feet out of the water. North of the island, in lat. 81°, there is an immense bank of ice stretching for more than 20 degrees of longitude, without the smallest appearance of any opening.

Botany. In these dreary regions, not a plant is found, except a few capable of enduring the utmost severity of cold.

The only tree is the dwarf willow, which here rises but a few inches above the ground.

The smaller plants are the bulrush, the mouse-ear, two species of crowfoot, four of the saxifrage, two of scurvy-grass, one of sea-weed, wild celery, endive, water-cresses, seven varieties of moss, and eleven of the herb liverwort.

Zoology. The rein-deer and the arctic fox are the only beasts on the island.

The birds are the eider duck; the puffin; the fulmar; four varieties of divers, the northern diver, a bird 3 feet 5 inches in length, the traile, the black guillemot, and the auk; three species of gulls, the kittiwake, the dung-hunter, and the ivory gull; the greater tern; and the greater bramblíng.

The amphibious animals are the sea-horse, called often the sea-cow, and sometimes the morse; the polar bear; the common seal, and the sea-snail.

The fish are the common whale, the fin-fish, the coal-fish, and 5 varieties of the crab,

Mineralogy. A coarse kind of marble is the only mineral, which capt. Phipps observed during his residence on the islands.

General Remarks. Spitzbergen, when first discovered, was entirely destitute of inhabitants; nor were any found on it by the English, when they visited it in 1773. It is, however, the constant resort of the Dutch whalers, and 20 or 30 sail visit it every summer. Pinkerton asserts that the Russians have taken possession of it, though he does not mention how or when. It is true, a Russian expedition sailed from Archangel in 1764, and in August of that year reached Bell sound, on the western coast, in lat. 77°, where they erected five houses, and left a lieutenant and 16 men. The object of the expedition was to discover a northwest passage to the Pacific ocean. In this they failed, as did two other expeditions sent out in the two following years. After that the establishment in Bell sound was deserted.* Every year, however, a ship goes from Archangel to winter on the western coast. At this time it is entirely uninhabited.† The extreme severity of its climate, the barrenness of its soil, its distance from the track of commerce, and the impossibility of visiting it during two thirds of every year, will forever render it, what it was obviously intended to be, a mere resting place for fishermen.

NORTHWEST COAST.

EXTENT. ISLANDS. THE COAST. RUSSIAN SETTLEMENTS. DISCOVERIES.

Extent. THE most southern settlement of the Russians is one at Portlock harbor, lying between 58° and 59° north. They claim, by right of discovery, the whole coast from this station northward, as far as cape Prince of Wales, comprising not less than 2500 miles of sea-coast; together with the numberless islands, which line the shore, and the long chain of islands, which reaches from the promontory of Alaska almost to the coast of Kamtschatka.

Islands. The islands claimed by the Russians may be considered under two divisions, the Aleutian isles, and the islands on the coast.

Aleutian Isles. The Aleutian or Fox islands lie in a curve line southwest of Alaska. The westernmost, Attoo, is about 300 miles from Kamtschatka. About half way between lie Behring's and Copper islands. Attoo and Agattoo are the two largest near the western end of the chain. They are about 40 miles long. East of these lie a great number of small islands, which are little more than rocks standing out of the water. Those near the American coast are much the largest. Of these Urnnak is about 100 miles in length, Unalaska 120, and Oonemak still larger. Unalaska is the most important of all these islands. It has on the northeast side 3

* Coxe's Russian Discoveries, 398—407. † Tooke's Russian Empire, iii. 92.

large good harbors, formed by 3 promontories. It contains two volcanoes, near one of which is a copious hot spring. The land is, in general, rocky, with loamy and clayey grounds; but the grass is extremely coarse and unfit for pasture. It contains scarcely any wood. Its trees are the larch, white poplar, pine, and birch; its shrubs, the dwarf cherry, whortleberry, and raspberry. The land animals are foxes, mice, and weasels; the amphibious, beavers, sea-cats, and sea-lions. The fish are cod, perch, pilchards, smelts, roach, needlefish; and various kinds of shell fish; the birds, eagles, partridges, ducks, and teals.

The inhabitants of these islands are of a middle stature, tawny, brown colour, with black hair. They wear coats made of birdskins, and cloaks of the intestines of whales. In the gristle of the nose they place a bone from the ends of which they suspend strings of beads. They are filthy in their persons. Their common food is fish and whale fat. They live in caves from 40 to 80 yards long, covered with grass and earth. They are generally mild and gentle in their dispositions, and civil and hospitable in their behaviour. They are by no means deficient in capacity, and have just ideas of the importance of good order and subordination. The beauty and proportion with which they make their boats, instruments, and apparel, evince an unusual degree of ingenuity. They are tributaries to the Russians, and their principal employment is hunting for Russian adventurers; who pay them in beads and tobacco. The whole number of inhabitants in the Aleutian islands is estimated by Mr. Sauer at 2500. They were more numerous when they were discovered. They speak the same language with that spoken on the promontory of Alaska.

Islands on the Coast. From Alaska eastward, the whole coast is lined with islands. The principal of these is Kodiak. Its length, according to Sauer's map, is about 150 miles, its breadth 70. It is just without the mouth of Cook's inlet, and very near the continent. The islands lying round Kodiak are wholly rocky and mountainous. Kodiak itself has a range of mountains running through it; but a great part of the island is well adapted to agriculture. It contains extensive natural meadows yielding a large quantity of grass. The climate, though it lies between 57° and 59° north, is often so mild, that cattle can continue out the whole winter. The trees found on it are the willow, aloes, birch, ash, fir, larch, and alder, beside five species of apples; and the various species of berries are abundant. European hortulane plants find here a favorable soil. The quadrupeds are foxes, wolves, gluttons, lynxes, bears, wild boars, rein-deer, hares, ermines, martens, sables, marmots, dormice, wild sheep, marmosets, and hedgehogs; the amphibious animals, otters, beavers, sea-lions, sea-otters, and seals; the birds, cranes, geese, ducks, gulls, ptarmigans, ravens, jackdaws, magpies, herons, puffins, and snipes; and the fish, the whale, turbot, stockfish, herring, salmon, and crab. The inhabitants are called *Kinaghi.* In their mode of life they very much resemble the Aleutians. They often live to the advanced age of 100 years. They are about 5000 in number. They speak the same language with

that spoken on the American coast,* between Kodiak and Portlock harbor; though in most of its words different from the Aleutian. The men are all employed by the Russians in hunting and fishing, and the women in curing the fish and drying the skins. They pay tribute to Russia.

The Coast. The natives on the coast, from Alaska to Portlock harbor are very numerous. According to Shelikoff's narrative, not less than 50,000 had, in 1784, professed obedience to the Russian government.† They compose several tribes, which are frequently at war with each other.

The Indians farther north appear still to be independent. Those near cape Rodney and cape Prince of Wales speak the same language with that of the Tshutski,‡ the nation which inhabits the opposite coast of Asia. They frequently sail across Behring's straits to the Asiatic side to make war upon them. They, as well as the islanders and other natives of the coast, are uncommonly skilful in the use of their boats or baidars, and, with the utmost ease, outrow a much larger number of Russians and Kamtschadales.

Russian Settlements. The principal of these is on the south-eastern side of Kodiak. It was established by an enterprising Russian of the name of Shelikoff in 1784. About 50 Russians are stationed there. The harbor called Treeh Svatitely is not very large; but its shores are uncommonly bold and the water more than 150 fathoms deep. All the islanders are in the Russian service.

The establishment next to this in consequence is at Unalaska. There is another on the island of Afagnack, a little north of Kodiak; and others on the coast, at Cook's inlet, cape St. Elias, port Etches, port Mulgrave, and Portlock harbor. In all these settlements, according to Hassel, there are about 800 inhabitants.

Discoveries. Vitus Behring, a native of Denmark, first explored the regions which we have been describing. On the 14th of July, 1728, he sailed from Kamtschatka river, and went as far north, according to his own account, as lat. 67 18. When there, however, he saw no land to the north or east; and does not appear to have known that he had sailed through the straits, which bear his name, or that he had been near the American continent. It is altogether probable, that, owing to some great mistake in his calculations, he estimated his latitude much higher than it really was. Certain we are, he neither knew of the separation nor the contiguity of the two continents. In 1741, however, Behring and Steller discovered the continent near Bristol bay. From that period, till the voyage of capt. Cook, the Russians were continually attempting to explore America. Cook, in a single voyage, did more to discover these regions than they had done in 50 years. He ascertained the line of the American coast, and the vicinity of the continents; and traced the eastern coast of Asia as high as 68°, and the western coast of America as high as 71° north latitude.

* Sauer's Expedition, p. 191.
† Coxe's Russian Discoveries, 285.
‡ Sauer's Expedition, 245.

DANISH AMERICA.

THE possessions of Denmark on the western continent, are confined exclusively to North-America. Formerly Denmark owned three of the West-India islands; but these have lately been wrested from her, and she now claims only Iceland and Greenland.

ICELAND.

SITUATION AND EXTENT. NAMES. ORIGINAL POPULATION. HISTORICAL EPOCHS. ANTIQUITIES. RELIGION. GOVERNMENT. POPULATION. REVENUE. CHARACTER AND MANNERS. LANGUAGE. LITERATURE. CITIES AND TOWNS. ROADS. MANUFACTURES AND COMMERCE. CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. MOUNTAINS. FORESTS. ZOOLOGY. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITIES.

Situation and Extent. ICELAND is an island, situated in the northern Atlantic ocean. It is 120 miles east of Greenland, and 270 northwest of the Ferro islands. It lies between lat. 63° and 67° north, and between lon. 13° and 28° west. Its length from east to west is 400 miles, and its breadth 270.*

Names. The *Thule* of Beda and the *Thila* of king Alfred are, by many, believed to have been Iceland. Nardoddr, a Norwegian pirate, in 861, being driven on the coast, gave it the name of *Snio-land* (Snowland;) and Floke, a Swede, the greatest navigator of his time, visiting it 4 years afterwards, called it by the name of *Iceland*, which it has ever since retained.

Original Population. We know little or nothing of the people, who inhabited Iceland when the Norwegians arrived there. The most ancient chronicles affirm that they were Christians; and conjecture has derived them from England and Ireland.

Historical Epochs. 861. Discovered by Nardoddr, as he was driven out of his course by the winds, on his return from Norway to Ferro.

878. Settled by a colony of Norwegians under Ingolfz; and in 60 years time the whole island was inhabited.

928. Before this year the island had been divided into numberless petty principalities, the chiefs of which were constantly engaged in war and robbery. To prevent this state of confusion a government was instituted, (in its form a mixture of aristocracy and democracy) which extended over the whole island. Owing to its want of strength, it failed of its effect; and, for the three succeeding centuries, Iceland continued a scene of rapine and violence.

* Von Troil, Let. III.

1120. Iceland was converted about this time to the Christian religion after the exertions of 240 years.

1261. The island became subject to Hakans, king of Norway.

1363 With Norway it was brought under the dominion of Margaret, queen of Denmark, and has ever since been a colony of that government.

1551. Christian III. after 11 years exertions, succeeded in introducing Lutheranism into Iceland.

Antiquities. Von Troil mentions the ruins of an old castle near Videdal, about 200 rods in circumference; the remains of which on the north side are 120 feet in height, though they are very low towards the south. It is not known when or by whom, it was built. There are also several of the Pagan temples and burying places still to be found.

Religion. The Lutheran is the present religion of Iceland. Its church enjoys a happy tranquillity. It composes two sees; that of Skalholt, containing 127 parishes; and that of Hoolum, containing 62. All the ministers are native Icelanders, and receive a yearly salary of 400 or 500 rix dollars from the king, exclusive of what they have from their congregations.

Government. The governor, who is appointed by the crown of Denmark, resides at Bessested, a town in lat. 64 6 north, lon. 22 56 west. His power is not very great.

Causes are first decided in the Haerads-thing, or county court, from which the parties may appeal to the Al-thing, or common court, which sits yearly at Thingvalla. It is composed of the governor and 12 of the most respectable men in the island. An appeal lies from its decisions to the supreme court at Copenhagen. Most questions are determined according to the laws of Denmark.

Population. The number of inhabitants is 60,000. At the beginning of the 15th century they were far more numerous; but, in the years 1402, 1403, and 1404, the island was nearly depopulated by a disorder, called the *black plague*, which at that time almost desolated the north of Europe. In 1707, 1708, the small-pox destroyed 16,000 of the inhabitants. They are now probably increasing in number. They are principally of Norwegian descent. Considerable colonies, however, from Denmark and Sweden, have at different times settled in Iceland.

Revenue. Iceland yields an annual revenue to the Danish monarch of about 30,000 crowns.

Character and Manners. The ancient Icelanders lived by war, piracy, and the chace. The introduction of Christianity and the loss of their independence produced a great change in their character and mode of living.

They are middle-sized, well made, though not very strong, and generally ill featured. Their poverty does not prevent them from being unusually hospitable. They are obliging and faithful, submissive to government, zealous in their religion, and warmly attached to their native country. They are not very industrious; but are fond of amusements; particularly of athletic diversions; of games of chance, in which, however, they never play for money;

and of visiting each other for the purpose of reading and reciting the history of Iceland. Their dress consists of very broad, ill looking shoes, worsted stockings, a wide pair of breeches, a linen shirt, a short jacket, a short coat over it, and a large three cornered hat. The clothes of those, who dwell north of Arnasfiord, are white, of those, who live south of it, of a coarse black cloth. Their houses are usually about 9 feet high, are made of drift-wood or lava, and have no chimnies, the smoke issuing from a square hole in the roof. Their food, morning and evening, is curds and sour whey; and at noon, dried fish.

Those, who live on the coasts, are employed principally in fishing; those, who live in the interior, in the care of their cattle. Few of them outlive 60. The prevailing diseases are the scurvy, gout, St. Anthony's fire, jaundice, fevers, pleurisy, and lowness of spirits.

Language. The Icelanders have a language of their own, called the *Icelandic*. It is intermixed with a few Danish words. It is the same with that which was formerly spoken in Sweden, Denmark, and Norway; and it has preserved itself so pure, that any Icelander understands the most ancient traditional history. The Danish is also usually spoken by those who live on the coast. The Runic alphabet, which consisted of only 16 letters, was formerly made use of; but about the year 1000, the Latin characters were generally adopted. Few of the Icelanders, however, understood the art of writing before that time.

Literature. The arts and sciences were extensively cultivated in Norway at the period when Iceland was settled; and, while the traces of literature were diminished, and at length destroyed, in the mother country, by the troubles which shook the whole north for several centuries, they were on the contrary carefully preserved in the colony. Poetry flourished long before the introduction of the Roman letters, and seven of their early poets, or *Skalds*, have survived the flight of eight centuries. This is owing in part to their intrinsic merit; and, undoubtedly, in part to the fact, that the language, in which they wrote, is still the vernacular language of Iceland. The list of their poets, who have lived since that period, contains no less than 240. The three most distinguished of these were Snorre Sturleson, the author of the Edda, who died in 1241; Olafr Huitaskald, who died in 1259; and Sturla Thordson, who died in 1284. Their language is peculiarly rich in poetical expressions; and they have no less than 136 different sorts of versification. The number of their historians and writers of annals is also very great. The period, when literature most flourished in Iceland, was between 1120 and 1350. At present, though they have few men of learning, yet they are far from being an ignorant people. The peasants all of them can read; and, beside being well instructed in the principles of their religion, they are also acquainted with the history of their country; and many of them can repeat from memory the finest passages of their poets. Printing was introduced into the island in 1530, and many valuable editions have proceeded from the Icelandic press.

Cities and Towns. The principal towns of Iceland are Skalholt, Hoolum, Thingvalla, Bessested, and Patrixfiord. The two last are seaports. The first and the two last lie near the southern end of the island; Thingvalla is more central; Hoolum is farther north. The whole number of seaports on the island is 22. The towns are all of very moderate size; the greater part of the inhabitants of the island living on scattered farms. The coast is much more populous than the interior.

Roads. The roads of Iceland are so very bad, that the inhabitants are unable to use carriages of any kind. Twenty miles is considered a long day's journey.

Manufactures and Commerce. The men manufacture leather, work at several mechanical trades, and a few in gold and silver. The women sew, and spin, and make the coarse black cloth of the country, called *wadmal.* There is a woollen manufactory at Beikavik, in which 15 men are employed.

The trade of Iceland was in the hands of the Norwegians till 1408; when the English took it and carried it on till the Reformation. At that time the Hansetowns got possession of it, and kept it till 1619, when Christian IV. of Denmark farmed it out to a company of Danish merchants. This company being found incompetent to the undertaking was suppressed in 1662. From that time to 1734, the trade of each haven was sold to the highest bidder. Since 1734 another company has had a grant of it, for which they pay 6000 dollars annually. This company sends to Iceland about 30 ships every year, loaded with corn, bread, wine, iron, and wood; and carries away fish, flesh, butter, blubber oil, skins, wool, woollen cloths, and not less than 2000 lbs. of eider down. This monopoly is extremely pernicious to the Icelanders, and the Dutch smugglers prevent it from being of any service to the company.

Climate and Seasons. The climate is not unwholesome, as the usual heat is not extreme, nor the cold in general very rigorous. The thermometer has been known however to rise to 104° of Fahrenheit; and, in the winter of 1753, 54, the cold, occasioned by the ice in the surrounding ocean, was so intense, that horses and sheep dropped down dead on account of it. Frosts and snow occasionally exist in June, July and August. If they last any length of time they are almost always followed by a famine. Thunder storms are rare. Northern lights, lunar halos, ignis fatui, and fire-balls are frequent. In the month of January the northwest winds usually bring immense quantities of ice from the coast of Greenland. This ice consists partly of mountains, sometimes 360 feet above water; and partly of field ice, of the depth of one or two fathoms.

Face of the Country. The surface of this island principally consists of ridges of mountains and barren rocks. The mountains are many of them covered with eternal snows; they cross the country in every direction and render the greater part of it incapable of cultivation.

Soil and Agriculture. The husbandry of the Icelanders is confined to the raising of cattle, sheep, and horses. Their horses are of the Norwegian breed, small, but strong. Corn will not grow.

The inland parts of the island do not lie waste. One finds every where, at little distances, farms consisting almost wholly of meadow land.

Rivers. The chief rivers are in the east. The Skalfanda, the Oxarfird, and the Brua, all run from south to north.

Mountains. The mountains appear to pursue no one regular course. They consist of broken ridges running in every direction. Many of the summits are considerably elevated. Snaefeld is 6861 feet above the sea, and Æsian 6000. They are generally volcanic; and the number of eruptions, which have taken place within the memory of history, is prodigiously great. The first on record was in the middle of the 9th century, the second about 1000. The chronicles mention 23 eruptions of Heckla between that year and its last, in 1766, and 40 of other mountains. Mount Heckla is in the southern part of the island, 25 miles from the seacoast. Its height is 5000 feet. During its eruptions, ashes and stones are said to be often thrown to the distance of 150 miles. The lava thrown out in the eruptions of this and the other mountains is often sufficient to cover many miles of country, and to destroy many farms and villages. That which took place in 1783, in a high mountain in the western part of the province of Shapterfiall, seems to have been unparalleled in its violence, and in its desolation. It continued from the 8th of June, to the 13th of August. The lava, which it threw out, covered a tract of country, 90 miles long and 42 broad, to the depth of from 100 to 120 feet. Twelve rivers were dried up, 20 villages destroyed, and 224 people lost their lives. The fire-spout rose to so great a height as to be visible 240 miles. A considerable quantity of ashes and sand fell at Ferro, and covered the whole surface of the ground, whenever the wind blew from Iceland. Ships, also, sailing between Denmark and Norway, were frequently covered with them. In many parts of Holland and Germany, a sulphurous vapour was observed in the air, accompanied with a thick black smoke; and in some places a light greyish substance fell upon the earth every night, which burnt with a bluish flame. This obscurity in the air even reached the island of Great-Britain; for the atmosphere was covered, during the whole summer, with a dark thick haze, which prevented the sun from appearing with his usual splendor. Two new islands were thrown up soon after from the bottom of the sea. One 3 miles in circumference, and a mile in height, rose about 100 miles southwest from Iceland, where the water had been 100 fathoms deep. It has since disappeared. The other lay on the northwest, between Iceland and Greenland, larger than the former, and very lofty. A little while before the fire broke out, there is said to have been a very remarkable eruption on the east coast of Greenland, the flame of which was visible in Norway. The two volcanoes are supposed to have had a communication beneath the ocean.*

Forests. Nothing like a forest or a wood is known throughout the island. A few birch trees grow here and there, which are never more than 12 feet high or 4 inches thick. The inhabitants burn

* Encyclopedia, Art. Iceland.

turf, fern, juniper, crowberry bushes, the bones of cattle, fishes moistened with train oil, and even dried cow dung. But their principal resort for fuel is to the coast for drift wood. Every year great quantities of the Norway and common firs, of the linden, willow, cork wood, and red wood are thrown upon the coast. For that deposited on the northeast coast at Langanas, they are principally indebted to the spring floods of the Oby, the Yenisea, the Lena, and other great rivers of Siberia. But the still greater quantities which reach the northwest coast, are believed to come from the Amazon, Oronoco, Missisippi, and other great rivers on the American continent. The gulf stream, though the greater part of it turns southeastward, near the banks of Newfoundland, nevertheless occasions a northern current along the eastern coast of Labrador and between Iceland and Greenland. Capt. Phipps found, that it ran, with the velocity of half a mile an hour, even on the western coast of Spitzbergen. Down this current the wood of milder climates is directed by Providence, to supply the wants of these inhospitable regions.

Zoology. Foxes and wild cats are the only wild beasts that inhabit Iceland. But great numbers of arctic bears every winter come *by ice* from the coast of Greenland.

The swan, eider duck, wild goose, wild duck, ptarmigan, and falcon are the principal birds.

The river fish are soles, flounders, herrings, trout, salmon trout, and salmon; great numbers of whales and innumerable codfish are found upon the coast.

Mineralogy. Marble, red and black jasper, the Iceland agate, rock crystal, and native sulphur are mentioned by Von Troil among the minerals of the island.

Mineral Waters. Hot springs are found in every part of the country. Upwards of 60 are enumerated in the Letters on Iceland. The most noted of these is one called Geyser, two days journey from Heckla, near Skalholt. The diameter of the bason is 59 feet, and the height to which the water is thrown, is often more than 100. The heat of the water is 212°.

Natural Curiosities. Beside the volcanoes and the hot springs already described, we may mention under this head *the caves of lava.* After an eruption, the upper crust of the lava grows cool, and hardens; while the melted matter beneath it, continuing liquid, often runs from below, forming a cavity. These caves are very numerous. The inhabitants make use of them for sheltering their cattle. The cave of Surtheller is between 34 and 36 feet high, from 50 to 54 feet broad, and 5034 feet long.

Though Iceland is dreary and barren, few countries present more interesting objects to the inquisitive mind.

GREENLAND.

SITUATION AND EXTENT. NAME. ORIGINAL POPULATION. HISTORICAL EPOCHS. RELIGION. POPULATION. FISHERY. CHARACTER AND MANNERS. CITIES AND TOWNS. CLIMATE AND SEASONS. FACE OF THE COUNTRY. RIVERS. BOTANY. ZOOLOGY. MINERALOGY.

Situation and Extent. CAPE Farewell, the southern extremity of Greenland, is in lat. 59 38 north, and in lon. 42 45 west. How far the country reaches north has never been ascertained. It is known to extend farther than lat. 70° north, and, if Baffin may be credited, farther than 78°. The maps generally represent it as extending beyond 82°. It is bounded on the west by what is called Baffin's bay and Davis's straits, which separate it from Labrador.

Name. When Greenland was first discovered, its climate appears to have been less inhospitable, than at present. It received from the Icelanders, who settled it, the name of *Groenland*, or *Greenland*, from its verdant appearance.

Original Population. The natives of Greenland are Esquimaux, the same people who inhabit Labrador, and the northern coast of America, as far as M'Kenzie's river, and probably to the western extremity of the continent.

Historical Epochs. 982. Greenland was discovered by the Norwegians who planted a colony there. In a little time the country was provided with many towns, churches, and bishops. A considerable commerce was carried on between Greenland and Norway. In 1406, however, all intercourse ceased between the two countries. This colony was scattered over both the eastern and western coasts. Those in the west are said, about that time, to have been exterminated by the natives. What became of the eastern colonists is not known. Their country, about that period, appears to have been rendered wholly inaccessible by the mountains of ice, which floated from the more northern seas, and from that day to this have lined the whole coast. All access to it from the west, has also been prevented by a stupendous range of mountains, perpetually covered with snow, which separates the two parts of Greenland from each other. It is conjectured that the descendents of the eastern colony are still living.

1576. An attempt was made by the English, under admiral Frobisher, to settle the country. They landed upon the western coast, built a house of stone, and left a variety of toys for the natives. They returned home the same year, and the design was abandoned.

1604. A Danish admiral, named Lindenow, sailed for Greenland, with the express design of discovering the eastern settlement. In the account of his voyage Lindenow affirmed, that he landed on the east coast, but saw no vestiges of the old colony. Little credit, however, is given to his narrative; for, a very short time after, Carsten Richards, having been sent out on the same discovery, was unable to make land on the eastern side of the country. He could on-

ly descry the high mountains at a great distance. Every similar attempt has had a like issue.

1712. The Greenland company at Bergen, in Norway, transported a colony to the western coast, in lat. 64° north. The reverend Hans Egede accompanied them, as their minister. To him we are indebted for the best account of modern Greenland. He made several attempts to explore the eastern coast, but could not reach it.

Religion. The Danes and Norwegians are Lutherans. The Aborigines are Pagans, except a number in the south, around New-Herrnhut, and Lichtenfels, whom the Moravian missionaries have been the means of converting to Christianity.

Population. The colony from Norway occupy the western coast from lat. 64° to 68° north. It is said that the country is inhabited as far as lat. 76°, and the Norwegians appear to have had a factory, some time since, as far north as lat. 73°. They are believed to amount to from 7000 to 10,000. It is impossible to ascertain the number of the natives. They are said to have amounted in 1733 to 30,000, when the smallpox destroyed great numbers of them. In 1746 their numbers were estimated at 20,000. These estimates were all made by a factor, who resided in the country upwards of 40 years.

Fishery. Greenland is valuable principally on account of its fisheries. In 1785 Great-Britain employed 153 ships in this fishery, and the Dutch 65.

Character and Manners. The natives, in their appearance, resemble the Laplanders. They are short, brawny, and inclined to corpulency; with broad faces, flat noses, thick lips, black hair and eyes, and a yellowish, tawny complexion. They are vigorous and healthy; but short-lived. In their dispositions they are cold, phlegmatic, indolent, and slow of apprehension; but very quiet, orderly, and good-natured. They are extremely filthy in their mode of living. Their whole business is fishing and hunting. They live, in the winter, in huts made of stone or turf, several families usually occupying the same building. In summer they live in tents of a conical form, covered on the inside with deer skins and on the outside with seal skins.

Cities and Towns. There is a Danish settlement called Good Hope, in lat. 64°, and another in Disco bay, called Disco, not far from 68°. New-Herrnhut, Lichtenfels, and Lichtenau are the principal Moravian establishments. These places are the residence of the Moravian missionaries. The native inhabitants around the two first of these places have all been baptized, so that no trace of paganism is now left in that neighbourhood.*

Climate and Seasons. Between lat. 64° and 68° north, in the summer, which continues from the last of May to the middle of September, the weather is warm and comfortable, while the wind blows easterly; though even at this time storms frequently happen, which rage with incredible violence. The sea coasts are often infested with fogs, that are alike disagreeable and unhealthy. Near

* Periodical account of the brethren, 1804.

the shore the low lands are clothed with verdure; but the inland mountains are perpetually covered with snow. Above lat. 68°, the cold is prodigiously intense; and, towards the end of August, the whole coast is covered with ice, which lasts till May.

Face of the Country. Greenland is generally mountainous. We have already mentioned that the eastern and western divisions are separated by a broad and lofty range of mountains. How far this continues northward, is not known. The mountains are barren; the vallies and low grounds, especially near the sea, are fruitful. Several of the mountains are visible 40 leagues at sea.

Rivers. We know the name of none of these, except Baal's river, near lat. 64° north. It runs S. W. and has been navigated 40 miles up the country.

Botany. A few oaks are found in the more southern districts. Wild thyme, tormentil, juniper, the blueberry, bilberry, and bramble are indigenous; as are the willow and birch; but they are of a small, stinted growth. Corn will not arrive at maturity; many of the hardier European vegetables thrive very well.

Zoology. The quadrupeds, which abound most, are rein-deer, foxes, hares, dogs, and white bears. The dogs are used as beasts of burden; and draw the sledges of the Greenlanders 70 miles a day.

Sea and water fowl, eagles, ravens, falcons, and other birds of prey are very numerous; as is likewise a species of linnet, which warbles very melodiously.

Whales, swordfish, and porpoises abound on the coast; as well as halybut, turbots, cod, and haddock. Seals and morses, also, are very numerous.

Mineralogy. Crantz mentions among the minerals, spar, quartz, talc, garnets, mica, coarse marble, serpentine, asbestos, amianthus, rock crystal, and black schorl. Copper and gold are believed to exist in the mountains.

BRITISH PROVINCES IN NORTH-AMERICA.

EXTENT. POPULATION. POLITICAL DIVISIONS.

Extent. BRITISH North America includes the vast extent of country, bounded south by the United States; east, partly by the Atlantic and Davis's straits, and partly by Hudson's bay; north, partly by Hudson's straits and bay, and, westward of that bay, by unexplored regions; west, by the territories occupied by the Chepewyans and the Knisteneaux: together with the islands of Newfoundland, Cape Breton, St. John's, and several smaller islands in the gulf of St. Lawrence. The most southern point of this extensive region touches upon lake Erie, in lat. 42 30 north; the most northern, cape Westenholm, upon Hudson's straits, in lat. 63° north; the most eastern, is the eastern shore of Newfoundland island, in long. 52 30 west; the most western point, fort Chepew-

yan, is in lon. 110 30 west. Though the country, included within these limits, is claimed, as belonging to the British government; only a small part of it is really occupied by British subjects.

Population. The population of these various territories, from the best estimate that can be made, amounts to about 400,000 or 420,000 souls.

Political Divisions. The countries which compose British North-America are the following, viz.

New-Britain	Upper Canada	Cape Breton I.
Lower Canada	Nova-Scotia	St. John's I.
Newfoundland I.	New-Brunswick	

These eight territories are reduced to six separate independent provinces or governments.

I. Lower Canada, which comprises New-Britain, Lower Canada, properly so called, and Newfoundland.
II. Upper Canada.
III. Nova-Scotia.
IV. New-Brunswick.
V. Cape Breton.
VI. St. John's.

The four first of these provinces have their own legislatures, and are governed by their own laws; the two last by the laws of England.

The governor general of British America usually resides at Quebec, in Lower Canada. He is governor, for the time being, of that one of the six provinces in which he happens to be personally present.

The governor general of Nova-Scotia, is governor, for the time being, of that one of the four last mentioned provinces in which he happens to be personally present. He usually resides at Halifax, in Nova-Scotia.

Each province has its own lieutenant governor, who acts as governor in the absence of the governor generals.

NEW-BRITAIN.

EXTENT AND DIVISIONS. ORIGINAL POPULATION. GOVERNMENT. RELIGION. POPULATION. FACE OF THE COUNTRY. RIVERS. LAKES. BOTANY. ZOOLOGY.

Extent and Divisions. THIS extensive country compriaes what, in common language, are three distinct territories;

1. LABRADOR, or the country east of Hudson's bay;

2. NEW SOUTH WALES, or the country lying southwest and west of James bay;

3. NEW NORTH WALES, or the country lying north of the preceding.

The whole country may be considered as reaching from lat. 50° to 63° north, and from lon. 56° to 110 30 west. Its length is not

less than 1800 miles, from east to west; its breadth is about 850. Labrador itself is 850 miles long, from north to south, and 750 broad.

Original Population. The aborigenes of Labrador, and of the country lying west of Hudson bay, and north of Churchill river, were Esquimaux and Knisteneaux; those who inhabited the country south of Churchill river, were Chepewyans and Knisteneaux. The country inhabited by these last nations has been already defined and their manners and character described.

The Esquimaux occupy the whole peninsula of Greenland, the coasts* of Labrador, and the whole northern coast† of America. They are universally believed to be of European origin, for the following reasons.

Their principal settlements were in Greenland and Labrador, and their progress has been only westward.‡ The other American tribes consider them as a totally distinct race of men, and constantly treat them as such. In their complexion, form, and general appearance, in their character, and mode of life, they differ essentially from the other tribes. In all these respects they resemble strongly the Laplanders. The complexion of the other aborigines is red; that of the Esquimaux and Laplanders is tawny.§ The Esquimaux in their persons are short, brawny, and inclined to corpulency. The Laplanders resemble them in these respects. Both nations also have broad faces, flat noses, thick lips, large mouths, black hair and eyes. The dress, food, huts, furniture, canoes, arms, modes of hunting, fishing, cooking, and travelling, bear as strong a resemblance, as the circumstances of the two nations will permit.

Government. The Esquimaux are said to be absolutely without any government.

Each of the British forts, on the west coast of Hudson bay, has a governor appointed by the governor general. The territory of of New-Britain, as we have already observed, is a part of the province of Lower Canada.

Religion. The great body of the inhabitants in these extensive and dreary regions are Pagans. The Moravians have missionaries stationed at Okkak, Nain, and Hopedale, where, from accounts as late as 1805, it appears, that they are laboring with increasing joy and success. The poor Esquimaux "are remarkably diligent in their attendance upon divine worship, and take great delight in every opportunity afforded them to hear the gospel." These missionaries have established schools, which are flourishing.‖

Population. All that we can say on this subject is, that at Churchill fort, York fort, Albany fort, and Moose fort, on Hudson

* The interior of Labrador was occupied by the Knisteneaux (the *Northern Indians* of Mr. Hearne.)

† Mr. Hearne discovered them at and near the mouth of Copper Mine river, which empties into the Frozen ocean in lon. 112°; and Mr. M'Kenzie found them at the mouth of M'Kenzie's river, in lon. 135°. He says there can be no doubt that they roam to the western extremity of the continent.

‡ M'Kenzie, II. 304.

§ Hearne, 166, and Leem's Danish Lapland, Chap. 3d.

‖ Periodical account for 1805.

bay; and at fort Chepewyan, in the west; there are small detachments of British troops; that at Nain, Okkak, and Hopedale on the northeast coast of Labrador, there are small settlements established by the Moravians; and that the country of the Knisteneaux is thinly, and that of the Esquimaux still more thinly, peopled.

Face of the Country. The country lying north of Churchill river, is, for a very great extent westward, a flat country; and, from the sterility of its soil, it has received the name of the Barren Grounds. A few stinted trees and short curling moss are all its vegetable productions. The country south of that river is level, also; but generally wooded with pines, birch, larch, and willows.

Both the eastern and western coasts of Labrador are bordered with innumerable islands. The navigation is hazardous on account of the rocks and islands of ice. The whole country is every where uneven, rocky, or mountainous. The mountains are frequently very lofty, and almost devoid of every species of herbage. The vallies are sandy and unproductive. The barrenness of the soil and rigor of the climate will long secure the Esquimaux a dreary, yet peaceful, retreat.

Rivers. Churchill, or Missinipi river, has its principal source in the head waters of Beaver river, rising in the mountains, which separate that river from the Saskatchawine. Its general direction is about E. N. E. and its length about 750 miles.

The Saskatchawine is the source of Nelson river. It rises in the Rocky mountains, runs through lake Winnipec, and empties at York fort. It preserves a general parallelism in its course with Churchill river; and its length is probably more than 1000 miles.

Hill river is a small stream emptying very near Nelson river.

Severn river is said to be another outlet of the waters of lake Winnipec.

Albany river rises in the mountains, which divide the waters of lake Superior and Hudson bay. It empties into the west side of James bay, at Albany fort.

Moose river rises in the same mountains, and empties into the bottom of the same bay, at Moose fort.

The rivers of Labrador are generally small.

Lakes. West of Hudson bay lie numerous lakes discovered by Mr. Hearne. The largest are Doobaunt lake, Yath-Kyed lake, and North-lined lake.

Botany. A few stinted pines, cedars, spruce, birch, poplars, and willows, are all the trees of Labrador and the country north of Churchill river. The gooseberry, cranberry, heathberry, dewberry, currant, strawberry, eyeberry, blueberry, partridgeberry, hipsmoss, several species of grass, retches, sorrel, and coltsfoot, make up the list of smaller vegetables.

Zoology. The quadrupeds of this country are moose-deer, stags, rein-deer, bears, tygers, buffaloes, wolves, foxes, beavers, otters, lynxes, martens, squirrels, ermines, wild cats, and hares. They are all clothed with a close, soft, warm fur. In summer, the color of their fur is the same with that, which the respective animals have in warmer climates. In winter the fur of all of them is white. Even

the dogs and cats of England, when carried there, on the approach of winter entirely change their appearance, and acquire a much longer, softer, and thicker coat of hair, than they had originally.

The birds are eagles, hawks, owls, ravens, woodpeckers, grouse, partridges, thrushes, grosbeaks, snowbirds, finches, larks, titmice, swallows, martins, cranes, bitterns, curlews, snipes, godwaits, whalebirds, plovers, sea pigeons, divers, loons, gulls, pelicans, swans, geese of ten different kinds, ducks, widgeons, and teals.

The amphibious animals are morses and seals.

The fish in the rivers are salmon, pike, perch, carp, and trout; in the sea, whitefish, cod, and whales: the shell fish, scollops, cockles, crabs, and starfish.

LOWER CANADA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAME. DIVISIONS. ORIGINAL POPULATION. HISTORICAL EPOCHS. RELIGION. GOVERNMENT. POPULATION. REVENUE. MANNERS AND CUSTOMS. LANGUAGE. CITIES AND TOWNS. INLAND NAVIGATION. MANUFACTURES AND COMMERCE.

Extent. LOWER Canada lies between 61° and 71° west, and between 45° and 52° north. Its greatest length from east to west is 800 miles. Its greatest breadth is about 450 miles; though the average breadth is said to be not more than 250.

Boundaries. Bounded north, by New-Britain; east, by New-Britain and the gulf of St. Lawrence; south, by New-Brunswick, Maine, New-Hampshire, Vermont, New-York and Upper Canada; west, by Upper Canada.

The division line between Upper and Lower Canada commences at a stone boundary on the north bank of the lake St. Francis, in the river St. Lawrence, at the cove west of Pointe au Boudet, and pursues a northerly course till it strikes the Ottawas river; thence it ascends that river to the head of lake Temiscaning; and thence proceeds due north till it strikes the southern boundary of New-Britain. From its commencement, as far as lake Temiscaning, the course of the boundary is about W. N. W.

Name. According to father Hennepin, "the Spaniards were the first who discovered Canada; but at their first arrival, having discovered nothing considerable in it, they abandoned the country and called it *Il Capo di Nada*, that is, *a Cape of Nothing*; hence by corruption sprung the word CANADA."

Divisions. This province is divided into 21 counties, viz.

Gaspe	Richelieu	York	St. Maurice
Cornwallis	Bedford	Montreal	Hampshire
Devon	Surrey	Effingham	Quebec
Hertford	Kent	Leinster	Northumberland
Dorchester	Huntingdon	Warwick	Orleans
Buckinghamshire			

These counties are subdivided into parishes.

Original Population. Various tribes of Knisteneaux Indians occupied the whole country of Lower Canada, at the period when it was settled from Europe. During the American war the Mohawks, one of the Six Nations, or Iroquois, removed from the Mohawk river, in New-York, and planted themselves in this province.

Historical Epochs. 1497. Discovered by John Cabot, a Venetian, in the service of the English.

1534. James Cartier, a Frenchman, under commission of Francis I. explored the gulf of St. Lawrence, and the next year ascended the river, and wintered at St. Croix, where he erected a wooden cross.

1603. A patent for an exclusive trade was granted to Sieur de Monts, who employed Champlain to make further discoveries in Canada.

1608. Champlain sailed up the St. Lawrence as far as a strait, called by the Indians, Quebec, where on the 3d of July he began to build, and here he passed the following winter. At this time the settlement of Canada commenced.

1628. A company of rich merchants, 107 in number, was established by patent for an exclusive trade.

1629. Quebec was taken by sir David Keith; and surrendered to the French by the treaty of St. Germain.

1642. The company above named acquired a right of soil.

1663. The charter of this company was revoked.

1664. Canada was put under the government of the West-India company.

1690. Sir William Phipps, with an armament from Boston, made an unsuccessful attack on Quebec.

1711. Another like attack was made on this city, by general Hill and admiral Walker, from England.

1759. Sept. 13. An English army under gen. Wolfe made a successful attack on Quebec, which surrendered on the 18th.

1760. The whole province of Canada surrendered to gen. Amherst, and was confirmed to Great Britain by the treaty of 1763, under whose dominion it has since continued.

1775. Canada was invaded by a body of provincial troops under gen. Montgomery; Montreal was taken, and an unsuccessful attempt made upon Quebec, in which the general was slain and his troops routed.

1778.* An act was passed by the parliament of Great Britain, expressly restraining itself forever, from imposing any taxes or duties

* In the 18th year of George III.

in the colonies, except for the regulation of trade, the produce of which taxes or duties to be disposed of by the provincial assemblies.*

1784. Canada was made the seat of a general government, to which the other provinces were, in a manner, made subject.

1791. Upper and Lower Canada were divided, and each constituted a distinct government independent of the other.

Religion. About nine tenths of the inhabitants are Roman Catholics. Of the remaining tenth the greater part are Episcopalians. A few are Presbyterians. There are 15 clergymen of the church of England in the province, with a bishop at their head, and about 140 Roman Catholic, who also have a bishop, and two respectable seminaries, one at Quebec, and the other at Montreal. The Catholics have 11 missionary stations in different parts of the British dominions, which are supplied with missionaries. There are 3 ministers of the church of Scotland, 1 at Quebec, 1 at Montreal, and 1 at New-Oswegatchie.†

By the constitution the king may empower the governor to make allotments of land out of the crown lands already granted, for the support of a Protestant clergy in each province; and one seventh of the amount of all future grants is appropriated to that purpose.

Government. Canada is a province belonging to Great Britain. It has, however, a government of its own.

The governor general of British America, as he customarily resides in this province, is its ordinary governor. He is appointed by the crown. A lieutenant governor chosen in the province executes that office in his absence. The governor fixes the time and place of holding the elections and the assembly, and has power to prorogue and dissolve the assembly at pleasure.

The legislature is made up of a legislative council and an assembly, who with the consent of the governor, have power to make laws. The legislative council is composed of not less than 15 members, from Lower, and 7 from Upper Canada, who hold their seats for life; unless forfeited by 4 years continual absence, or by swearing allegiance to some foreign power. They are summoned by the governor general with the approbation of the king. The house of assembly consists of not less than 16 members for Upper, and not less than 50 for Lower Canada, chosen by the freeholders in the several towns and counties: the council and assembly are to be called together, at least once in every year, and every assembly is to continue four years, unless sooner dissolved.

No bill becomes a law till it has passed both houses, and received the king's assent through the governor. This must be given within two years, or the bill cannot afterwards become a law. The king in council may annul any law, to which his assent has been officially given, within two years after a copy of the law is received by the secretary of state.

The governor with some of the council selected by the crown, constitute the high court of appeals in the province.

* Quebec Almanac, &c. for 1814.
† Quebec Almanac for 1814.

Population. The number of inhabitants, in Lower Canada, in 1783, was by actual enumeration 113,012. The number, in 1806, was, according to Mr. Heriot, 150,000. In 1811, they were estimated at between 200,000 and 300,000.* The greater part of these are descendents of the original French colonists. We are not certain whether the aborigines are included in this estimation; but believe they are not. Their number is probably about 20,000.

Army. The militia of Lower Canada is organized in 30 divisions, with their proper officers. Eight of these divisions are within the district of Quebec, 3 in that of Three Rivers, 6 in that of the Eastern townships, and 13 in that of Montreal.

Revenue. The only revenue to Great Britain arises from an advantageous commerce. The expenses of the civil list amount to 25,000*l.* sterling, one half paid by the province, the other by Great Britain; of the military establishments, with repairs of forts, to 100,000*l.* and of presents to the savages, and salaries to officers employed in trading with them, to 100,000*l.* more. The advantages of the commerce are thought to be more than a counterbalance to these expenses.

Manners and Customs. The manners of the Canadians in the larger towns are tinctured with French levity. The French inhabitants, generally, both men and women, are extremely ignorant and superstitious, and blindly devoted to their priests. Many of those, who are employed in the fur trade, are sunk far below the aborigines.

Language. The French is universally spoken. The English is restricted to the few British and American settlers.

Universities. Of these there are two, one at Quebec, the other at Montreal, both belonging to the Roman Catholics, and respectable institutions, well endowed, and furnished with learned professors.

Cities and Towns. QUEBEC is the capital of the province. It stands on a point of land on the northwest side of the river St. Lawrence, lat. 46 48 39 north, lon. 71 12 6 west, at its confluence with the river St. Charles and about 320 miles from the sea, 364 from Boston, 797 from Halifax, 419 from Albany, 180 from Montreal.† The town is divided into Upper and Lower. The Upper town stands on a high limestone rock; is of considerable natural strength, and well fortified. The Lower town is situated upon low land, at the foot of the rock, which has been gradually gained from the river. The streets are irregular, uneven, narrow, and unpaved. The houses are almost universally of stone, small, ugly, and inconvenient. The fortifications are extensive, but irregular. A large garrison is maintained, but 5000 soldiers would be necessary to man the works. The number of inhabitants, in 1806, was, according to Heriot, 15,000. Two thirds of them are French, and the presence of the legislature, the courts, and the garrison, renders the town gay and lively. The lower town is inhabited principally by tradesmen and sailors. The rock which separates it from the

* Quebec Almanac for 1811.
† Quebec Almanac for 1811.

upper extends, with a bold and steep front, a considerable distance westward, along the St. Lawrence. The upper town frequently suffers from a scarcity of water, which is always abundant in the lower. The monasteries are almost extinct; yet there are three nunneries. The markets are well supplied, and the little carts are often drawn by dogs. The St. Lawrence opposite the town is only a mile wide. A little below, it widens to 4 or 5 leagues, and continues that width to the sea. It forms here a safe and commodious bason for ships, and is from 20 to 25 fathoms deep. If Mr. Heriot's estimate of the population of the town is correct, its growth for some time past has been rapid; for in 1784 it contained only 6,472 inhabitants. The surrounding country presents a most sublime and beautiful scenery; and the banks of the river, between Quebec and Montreal, furnish a pleasing succession of neat country seats and flourishing farms.

MONTREAL, the second city in rank in Lower Canada, was originally called *Villa Marie*. It stands on the east side of an island in the river St. Lawrence, which is 30 miles long, and 12 broad. In the middle of the island is a high mountain, which the French called *Mont-real*, a name which was afterwards transferred to the city and island. The town is 200 miles below lake Ontario, and 180 miles above Quebec, in lat. 43 35 north, lon. 73 11 west, at the head of ship navigation. The St. Lawrence is 3 miles wide at this place. The city forms an oblong square, divided by regular streets, and is surrounded by a strong wall, built by order of Lewis XIV. The houses stand on a side hill, and are many of them badly built. Almost every house may be seen at one view from the harbor, or from the southeast side of the river. The number of inhabitants in 1809 was estimated at 16,000. The distance of the town from the southeast bank of the river is half a league. The chief trade of the city is in furs; though, during the American embargo, and since, its foreign trade was very much increased. A regiment of soldiers is stationed here. The British Northwest company, which has proved a formidable rival in the fur trade, to the Hudson bay company, is composed principally of Montreal merchants.

TROIS RIVIERES is pleasantly situated on the northern side of the St. Lawrence, 50 miles southwest of Quebec. It is but thinly inhabited, though commodiously situated for the fur trade, and was formerly the seat of the French government. It is the great resort of the savages, who come down the Three Rivers, to dispose of their skins and furs. The inhabitants are generally rich, and have elegant and well furnished houses, and the country round wears a fine appearance. In this town is a large parish church, a hospital, and female academy. It sends two members to the assembly. Two islands at the mouth of the river, produce the appearance of three rivers; hence its name: lat. 46 51 north, lon. 75 15 west.

La Prairie is a little village on the opposite side of the river to Montreal.

Sorelle lies 45 miles below Montreal, and contains 100 scattered houses. Its chief business is ship building.

Inland Navigation. Probably no country in the world has equal advantages furnished by nature for an extensive and easy inland navigation with North-America. In Canada there are two routes westward to fort Chepewyan, the great rendezvous of the western traders, situated near the southwest extremity of the lake of the Hills, in lat. 58 40 north, long. 110 30 west. The southern is up the St. Lawrence and lake Ontario, and up Niagara river, 7 miles to Queenstown, where there is a portage of 6 miles, to Chipawa. From Chipawa, merchandize is transported in batteaux 18 miles, to fort Erie, at the head of Niagara river, whence it is shipped up lake Erie, Detroit river, lake St. Clair, Huron river, and lake Huron to the falls of St. Mary. The other route is up the Ottawas to the mouth of Little river, up that river 45 miles; thence by land to lake Nepisingui 10 miles; thence down that lake and French river, and across by the northern shore of lake Huron, to the falls of St. Mary. This last route is alone taken by the men employed in the fur trade. The other is taken to transport merchandize for the western country to Detroit and Michilimackinac. The route from the falls of St. Mary, westward, has been already described.

The river Sorelle connects lake Champlain with the St. Lawrence between Montreal and Quebec, and furnishes the former of these two towns an advantageous connection with the northern parts of New-York and Vermont.

Manufactures and Commerce. Ship-building is carried on at Quebec and at Sorelle with considerable success. Flour, biscuit, and pot-ash, are extensively manufactured for exportation. The sugar consumed in the interior is all of it manufactured from the juice of the maple. A few coarse linen and woollen cloths are manufactured for home consumption.

The imports of Canada, antecedent to the conquest by the British, in the most flourishing years, amounted only to 160,000*l.* sterling, and its exports to 80,000*l.* Only 12 vessels were engaged in the fishery, and 6 in the West India trade. The exports, at that time, consisted wholly of furs and fish. In 1802 the exports exceeded half a million sterling. Besides furs and fish there were exported in that year 1,010,000 bushels of wheat, 38,000 barrels of flour, 32,000 cwt. of biscuit, large quantities of potash, and considerable quantities of American ginseng. In the export of these articles 211 vessels were employed, amounting to 36,000 tons. The fur trade and fisheries also have greatly increased.*

The former, the fur trade, has become a very interesting object. The Northwest company was formed in 1783. They employ in the concern 50 clerks, 71 interpreters and clerks, 1120 canoe-men, 35 guides, and about 140 canoes. Each canoe will carry about 8,400 lbs. weight, and is navigated by 8 or 10 men. These canoes compose two fleets, each of which starts every other year from Montreal, loaded with coarse linen and woollen clothes, milled blankets, arms, ammunition, tobacco, coarse sheetings, thread, lines,

* The substantial articles of export in 1810 were peltries, lumber, flour, pork, and beef. The vessels cleared in that year were 661. Their tonnage amounted to 143,893; their seamen to 6,578.

twine, hardware, silk and cotton handkerchiefs, hats, shoes, stockings, calicoes, printed cottons, &c. obtained from England; and spirituous liquors and provisions purchased in Canada. The English goods are ordered in the October but one preceding, are shipped from London in March, arrive in Montreal in June, and are made up in the course of the following winter and spring. The canoes leave Montreal in May, arrive in the Indian country and dispose of the goods for furs in the winter; which arrive at Montreal in September, are shipped for London, where they are sold in March and April, and paid for in May and June. Nearly four years, of course, elapse from the first purchase of the goods, to the time of selling the furs.

The produce of the year 1798, consisted of the following furs and peltries:

106,000	Beaver skins	6,000	Lynx skins
2,100	Bear do.	600	Wolverine do.
1,500	Fox do.	1,650	Fisher do.
4,000	Kitt Fox do.	100	Raccoon do.
4,600	Otter do.	3,800	Wolf do.
17,000	Musquash do.	700	Elk do.
32,000	Marten do.	750	Deer do.
1,800	Mink do.	1,200	Dressed do.

500 Buffalo robes, and a quantity of castorum.

That of 1810, consisted of the following:

98,523	Beaver skins	2,536	Fisher skins
10,751	Bear do.	39,521	Raccoon do.
2,645	Otter do.	19	Wolf do.
9,971	Musquash do.	534	Elk do.
554	Marten do.	32,551	Deer do.
169	Mink do.	2,428	Cased and open Cat. do.
327	Lynx do.	1,833	Swan do.
517	Wolverine do.	2,684	Hare do.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. MOUNTAINS. BOTANY. MINERALOGY. NATURAL CURIOSITIES.

Climate and Seasons. WINTER commences early in November, and lasts till April. The cold is so intense that the largest rivers are frozen over, and even the mercury in the thermometer often reduced to a solid state. The ice on the rivers is usually two feet thick, and that close to the banks of the St. Lawrence, called *bordage*, is commonly 6 feet. The snow usually lies from 4 to 6 feet deep. The spring is extremely short, and vegetation surprizingly rapid. The thermometer, in July and August, frequently rises above 80°, and sometimes above 90°.

Face of the Country. Lower Canada is every where hilly, and in many places mountainous. Far the greater part of the country is still covered with forests.

Soil and Agriculture. The soil is generally a loose, blackish earth, ten or twelve inches thick, covering a bed of clay. It is very fertile. Marl is employed as a manure, and is found in great abundance on the banks of the St. Lawrence. Wheat is raised in large quantities for exportation. Barley, rye, and other sorts of grain are productive. A little tobacco is raised for private use. Culinary vegetables thrive very well. The meadows, which are well watered, yield excellent grass, and feed great numbers of large and small cattle.

Rivers. The St. Lawrence has been already described. The Ottawas, or Utawas, rises in Upper Canada, near the head of the lake Abitibbe, a branch of the Moose. About 120 miles from its source it runs through the southern end of lake Temiscamming, and about 80 miles below, receives Little river from the south. It empties into the N. W. side of the St. Lawrence, at the upper end of Montreal island. Its course is 600 miles, in a direction, on the whole, E. S. E. From lake Temiscamming to within a little distance from its mouth it divides Upper and Lower Canada.

The Sorelle and the St. Francis fall into the St. Lawrence from the south, between Montreal and Quebec.

The Saguenai and Black rivers, and a great many smaller streams, fall into it below Quebec, from the north.

The Connecticut runs a little distance in this province.

Lakes. Temiscamming and Abitibbe in the west, and Mistissinny in the north, are the only lakes whose names we are acquainted with in this territory.

Mountains. We have already described these in our account of the Rocky Mountains.

Botany. The trees of New-England, with the exception of the various species of oak, are found in both Canadas, but generally inferior in their size. Evergreens predominate in the forests.

Zoology. See this article under the head *United States.*

Mineralogy. The mineralogy is of little consequence. Even iron is rare. Large quantities of black sand are found both on the northern and southern shores of lake Ontario and Erie. There are said to be lead mines which produce a little silver.

Natural Curiosities. The falls of Montmorency are situated upon a river of the same name, which empties into the St. Lawrence on its northeasterly side, in the district of Beaupour, about 3 leagues below Quebec; and from their beauty, magnificence, and astonishing height, merit the attention of the admirers of nature. They are 20 rods from the confluence of the two rivers, and may be distinctly viewed as you sail down the St. Lawrence. The banks of the Montmorency are perpendicular, both above and below the falls, and are composed of a *soft stone*, resembling that brought from Connecticut river. They are perfectly regular, and nearly as smooth as if they had been under the hand of the artist. The river is 50 yards wide, and so rapid that the quantity of water is very

great. About 50 feet above the perpendicular cascade, the water begins to tumble over rocks at an angle of 45°, till it arrives at its great leap; where it falls in one unbroken, uninterrupted sheet to the bottom. The height of the perpendicular fall is 240 feet. If these falls are inferior to those of Niagara in grandeur and sublimity, they certainly rival them in beauty, and excel them in height.

NEWFOUNDLAND ISLAND.

SITUATION AND EXTENT. ORIGINAL POPULATION. SETTLEMENT. GOVERNMENT. POPULATION. TOWNS. BANKS. HARBORS. FISHERY. CLIMATE AND SOIL. FACE OF THE COUNTRY. RIVERS.

Situation and Extent. NEWFOUNDLAND limits the northeastern side of the gulf of St. Lawrence. It is separated from New-Britain by the straits of Bellisle, and from Cape Breton by the principal mouth of the gulf. It lies between lat. 46 45 and 52 31 N. and between lon. 52 31 and 59 40 W. Its length is 381 miles, and its breadth varies from 40 to 287. Its shape is triangular.

Original Population. The aborigines of this island were even more warlike than their brethren on the continent. The tribe still occupies the northern half of the island. They are usually at war with the English, and are thought to increase in their numbers.

Settlement. 1497. Sebastian Cabot discovered the island.

1504. Some French fishermen came upon the coast, and fished upon the banks.

1610. Mr. John Guy, with 39 others, began a settlement at Conception bay. Guy was employed by the London and Bristol company. Previous to this time Placentia was settled by the French.

1613. By the treaty of Utrecht Newfoundland was acknowledged by the French to belong to England.

Government. The admiral on the coast is the governor of the island under the governor general of the British provinces.

Population. The population in 1805, was 24,922, of whom 8000 were Roman Catholics. It is now not less than 30,000. The greater part of the men are employed in the fishery. The Indians are considerably numerous; probably more than 1000.

Towns. Placentia stands on a large bay of the same name on the southern end, near the eastern side of the island. The bay is an excellent harbor and is much resorted to by the fishing ships. The number of inhabitants is about 3000.

St. John's lies on the eastern side, near the southern end of the island, in lat. 47 35 N. lon. 52 20 W. It is about the size of Placentia.

Bonavista stands on the eastern side near the middle of the island, on Bonavista bay, in lat. 49 20, lon. 53 25.

Banks. The *Great Bank* lies 60 miles from the southeastern shore. It is 300 miles long and 75 broad. To the east of this lies *False Bank*. The next is *Green Bank*, 240 miles long and 120

broad; then *Banquae*, about the same size; then *Sand Island Shoals*, *Whale Bank*, and *Bank of St. Peters*, with several others of less note. These banks extend from lat. 41° to 49° N.

Harbors. There are about 20 bays and harbors on the coast. They are all complete anchoring places, being clear of rocks, and having a good bottom. The principal are Fortune, Placentia, and St. Mary's on the south; Conception, Trinity, Bonavista, Notre Dame, and White bay, on the east; and the bay of Islands on the west.

Fishery. There are two fishing seasons. That on the shore and in the harbors, commences about the 20th of April, and ends about the 10th of October. The fish caught on the shore are caught by the inhabitants, and sold by them to the English merchant ships. The boats fish in from 4 to 20 fathoms water. The other, the bank season, is the most important. It begins the 10th of May, and continues till the last of September. The boats fish in from 30 to 45 fathoms water. At first they use pork and birds for bait, but as soon as they catch fish they make use of clams, which are found in the belly of the cod. The next bait is the lobster, after that the herring and the launce, which last till June, when the capelan comes on the coast, and is another bait. In August the squid comes into use, and finally the herring. The fishermen on an average take each 7000 in a season. The greatest number ever taken by one man was 12000, and the largest cod-fish ever caught here measured 4 feet 3 inches long, and weighed 46 pounds.

Great Britain and the United States employ annually 3000 sail of small craft in this fishery; on board of which, and on shore to cure the fish, are upwards of 100,000 hands. Three quintals of wet fish make one quintal of dry, and the livers of 100 quintals make one hogshead of oil. The produce of the fishery will average 300,000 quintals of fish, and 3000 hogsheads of oil. The produce of the year 1799 was as follows:

453,337	quintals of dry cod-fish	202	barrels of herring
13,995	do. of core-fish	3,017	tons of oil
2,642	tierces of salmon	74,181	seal skins

The amount of fish sold by the English in the Mediterranean and the north is 300,000 pounds sterling, annually. The plenty of cod on the banks is inconceivable. There is a great abundance, also, on the shores of Cape Breton, Nova Scotia, and New-England; and very profitable fisheries are carried on upon their coasts.

Climate and Soil. In the winter the climate is severe, nothing but snow and ice being visible; and the bays and harbors are entirely frozen. The coasts are very subject to fogs, attended with almost continual storms of snow and sleet, the sky being usually overcast. These are attributed to the vapours of the Gulf Stream. The land near the coast is rocky and barren. A few kitchen vegetables with strawberries and raspberries are all its produce.

Face of the Country. The country, for 60 miles from the southern coast, is hilly, but not mountainous. The hills increase in height, as they recede from the sea. They do not form a chain of hills, but rise and fall irregularly and abruptly. The coasts are

high, and the shores remarkably bold. The mountains on the S. W. side, near the sea, are very high and terminate in lofty headlands. Such are Chapeau Rouge, a remarkably high promontory, Cape St. Mary's, and Cape La Hune. The hills, on the N. E. terminate in pyramids, but form no continued chain. The country is much wooded, and the hills are covered with birch, hazel, spruce, fir, and pine, all of a small growth; which is chiefly owing to the inhabitants taking off the bark to cover the fish stages. The hills in the north, however, are entirely bald. The interior of the country, where there are no mountains, consists of morasses, or dry, barren hammocks, covered with stunted black spruce. In some parts of the island there is timber sufficiently large for the building of merchant ships; the hulk is made of juniper, and the pine furnishes masts and yards.

Rivers. The rivers are all short and unfit for navigation, but they are of use in floating down the wood with the spring floods. They are, also, excellent guides for the hunters of beavers and other animals to penetrate up the country; which, as yet, has never been done deeper than 30 miles.

Two small islands, to the south of the bay of Fortune, lie near the southern coast of Newfoundland.

UPPER CANADA.

EXTENT. BOUNDARIES. RELIGION. GOVERNMENT AND CIVIL DIVISIONS. POPULATION. TOWNS. MILITIA. CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. BAY. MINERALS. MINERAL WATERS.

Extent. IF, as we suppose, this province is considered as extending to lake Winnipec westward; and northward to Poplar river, which falls into the middle of that lake from the east; the following account of its size and situation may be regarded as generally accurate. Its southern extremity on lake Erie is in lat. 42 30 N. its northern at Poplar river in lat. 52 30; its eastern on lake St. Francis in lon. 74° W. and its western on lake Winnipec in lon. 97°. The northern line generally, however, is believed to be considerably south of lat. 52 30. Its length from east to west on this supposition is 1090 miles. Its greatest breadth from lake Erie to the northern line is 525 miles; the average breadth is not more than 250 or 300.

Boundaries. Bounded N. by New-Britain; N. E. by Lower Canada; E. by the same, and by the river St. Lawrence, lake Ontario, and Niagara river, which divide it from New York; S. by lakes Erie, Huron, and Superior, and Winnipec river, which divide it from New-York, Pennsylvania, Ohio, Michigan Territory, and the N. W. parts of the United States; W. by Detroit river, lake St. Clair, Huron river and lake, Winnipec river and lake Winnipec.

Religion. The great part of the province is destitute of a regular gospel ministry. At Kingston, Newark, and a few other places, there are settled clergymen. Except these places the Methodists are almost the only preachers in the country. Methodism is the prevailing religion of the province. There are a few Presbyterians or Episcopalians, and scarcely any Catholics.

Government and Civil Divisions. Like the other provinces, Upper Canada has a lieutenant governor, who acts as governor in the absence of the governor general.

The legislature is composed of a legislative council and house of assembly. The former contains not less than 7 members, the latter not less than 16. The manner of election and the tenure of the office are the same as in Lower Canada.

The legislature meets annually in May, and has the sole power of taxation.

Weekly courts are held in every town in the province, by two justices of the peace, who have final cognizance of all debts under 8 dollars. District courts are held every three months, by a district judge, in which causes are finally decided by a jury of 12, where the demand does not exceed 60 dollars. Greater sums are tried by a jury, before the circuit court, composed of the chief justice and two associate judges, who make an annual circuit through the province. From them is an appeal to the governor and council.

This province is divided into the following 19 counties.

Glengary	Frontenac	Hastings	Norfolk
Stormount	Ontario	Northumberland	Suffolk
Dundas	Addington	Durham	Essex
Grenville	Lenox	York	Kent
Leeds	Prince Edward	Lincoln	

These counties are subdivided into townships ordinarily of 9 by 12 miles.

The constitution, which guarantees to the people their political privileges, was received from the British government in 1791. That government bears the whole expense of the civil establishment. There is no land tax, quit rent, nor any other, excepting for the regulation of internal police in counties and smaller corporations.

The people regulate all local matters and choose their town officers, as in the United States. Their privileges are much greater than were those of the American colonies previous to the revolution.

Population. The number of inhabitants, in 1783, was 10,000, in 1806, 80,000.* They are composed chiefly of emigrants from New-England and New Jersey. Some of the settlers are from Great Britain. Many of the towns have the names of the towns in New and Old England.

Towns. York, formerly *Toronto*, the seat of government, stands on York harbor, on the north side, near the west end of lake Ontario, in 43 35 N. directly opposite the mouth of Niagara river, which

* Heriot's Travels.

is 40 miles distant by water, and 100 by land. A long and narrow peninsula, called Gibraltar point, forms and embraces this harbor, securing it from the storms of the lake, and rendering it the safest of any on the coast. The town is projected to extend a mile and a half in length, from the bottom of the harbor, along the lake. Many houses are already completed, some of which display considerable taste. It was laid out in 1791. Within the last 10 years its growth has been rapid.

Kingston is in lat. 44 8 N. lon. 75 41 W. It stands at the head of the St. Lawrence, on the north shore, opposite Wolf island. It occupies the site of fort Frontenac, was laid out in 1784, and is of considerable size. It has an excellent harbor, in which the king's shipping on lake Ontario winter. It has an episcopal church, a hospital and a barrack for troops.

Newark stands on the west bank of Niagara river, at its mouth, in lat. 43°. It extends a mile along the lake. It contains two churches, one Episcopal, the other Presbyterian.

Queenstown stands on Niagara river, 7 miles above Newark. It contains an Episcopal church.

Chipawa, is a little village 3 miles above the falls, and 6 above Queenstown.

Elizabethtown, in the district of Johnstown, near lake Ontario, was settled in 1784, chiefly by British people. The London missionary society have a missionary established here.

Militia. The militia in the several districts meet annually. All the males, except the Friends, Tunkers and Mennonists, from 16 to 45, bear arms.

Climate. The climate is much milder than in the Lower province.

Face of the Country. This country is generally level, and, in many parts, little elevated above the lakes. In the northern parts of the province is the Canada range of mountains, which branches from the Rocky mountain range, near the head of Columbia river, and preserves an irregular course to the eastern shore of Labrador.

Soil and Agriculture. The soil is generally good. The agriculture is yet in its infancy. The whole country, which is cleared, produces good wheat, Indian corn, flax, and grass in abundance. Hops of a good quality grow spontaneously; also plums, mulberries, blackberries, strawberries, raspberries, and grapes. Orchards begin to bear fruit. Peaches, cherries, and currants are abundant. Good pork is often fattened entirely in the woods.

From the eastern boundary of the province, to lake Ontario, the northern bank of the St. Lawrence is laid out into regular counties and townships; the land is fertile, and under good cultivation. There are between 30 and 40 miles in this extent. Good roads have been opened, bridges well constructed, and comfortable houses erected for the settlers. North of these townships is a tier of more than 20 others, most of which front on the Ottawas river. Settlements have commenced in these, and, from their soil, and the advantages of their situation, they will probably soon become flourishing, populous towns.

Rivers. The St. Lawrence and the Ottawas have been described. The latter runs the first 120 miles of its course, wholly in this province, and the Moose and Albany rivers the first part of theirs.

The Trent, from the west, falls into lake Ontario above Kingston, discharging the waters of Rice lake. The Thames is a considerable stream, which, from the east, runs into lake St. Clair. The Chipawa falls into the Niagara at Chipawa. Holland river connects lake Simcoe with lake Huron; as does French river, lake Nipissing. The Michipicoten falls into the N. E. corner of lake Superior; and the Nipigon into the northern side, pouring in the waters of lake St. Anne.

Lakes. Half of lakes Ontario, Erie, St. Clair, Huron, Superior, Rising lake, lake of the Woods, and lake Winnipec belong to Upper Canada. Lake Nipissing lies north of Huron, about 40 miles long and 15 wide, and lake Simcoe east of it, about as large. Lakes St. Anne, Sturgeon, St. Joseph and several others lie N. and N. W. of lake Superior.

Bay. The bay of Quinti is a very long, narrow harbor on the northern shore of lake Ontario. It is formed by the county of Prince Edward, which is a large peninsula, running out eastward from the northern shore of the lake. The eastern end of the peninsula is called Point Pleasant. From Point Pleasant to the western end or head of the bay is 50 miles. It is navigable the whole distance for the vessels of the lake. The peninsula forms three townships, Ameliasburgh, Sophiasburgh and Marysburgh. At no great distance from the commencement of the peninsula, it becomes so narrow as to form a short portage from the head of the bay into the lake. The towns, which front the north side of the bay, are Sidney, Thurlow, Adolphustown, and Fredericksburg. A little west of the portage, Trent river supplies the bay with the waters of Rice lake. A canal has been proposed across the portage, which would convert the peninsula into a large island.

Minerals. Iron is abundant, but it is not wrought in the province.

Mineral Waters. There is a spring about 2 miles above Niagara falls, that emits an inflammable gas; which, if confined in a pipe, will boil water in 15 minutes. There is a *salt spring* on a creek 15 miles from Newark, from which salt is made. Several others are found in the province.

NOVA-SCOTIA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAMES. HISTORICAL EPOCHS. RELIGION. GOVERNMENT AND LAWS. DIVISIONS. POPULATION. SEMINARIES OF LEARNING. CHIEF TOWNS. ROADS. TRADE.

Extent. NOVA-SCOTIA is a large peninsula, reaching from the province of New-Brunswick into the Atlantic. It lies between

lat. 43 30 and 48 4 N. and between lon. 58 50 and 67° W. Its length is 307 miles, its breadth 154, and it contains about 14,000 square miles.

Boundaries. Bounded N. E. by the gulf of St. Lawrence, and the straits of Northumberland and Canceau; E. S. and S. W. by the Atlantic ocean; W. by the bays of Fundy and Verte and the province of New-Brunswick with which it is connected by an isthmus about 18 miles wide.

Names. The name first given this province by the French was *Acadia*, which was intended by them to denote a country of indefinite extent in the northern part of North-America. James I. of Scotland gave it its present name in the year 1621.

Historical Epochs. In the year 1594, one May, an Englishman, touched upon the coast.

1598. The Isle of Sable was peopled by a number of French convicts, left there by the Marquis De la Roche, who explored the west of Nova Scotia, but made no settlement.

1605. Henry IV. of France granted the Sieur de Montz a patent of the American territories from lat. 40° to 48° N. In the following year that adventurer made a settlement at Annapolis.

1613. Annapolis was destroyed by an English expedition from Virginia.

1621. James I. of Scotland granted sir William Alexander of Mensury a patent of Nova-Scotia under the great seal of Scotland; by what right it is hard to tell. It was created into a palatinate, to be held as a fief of the crown of Scotland; and the patentee had the usual powers of a count palatine. No settlements of any consequence were made under this patent.

1749. The English government published proposals for the establishment of a new settlement at Chebucto (Halifax.) An expedition sailed from England in the autumn of this year under general Cornwallis, consisting of 2700 persons. Parliament devoted 40,000*l.* sterling to defray the expense and 30,000 annually to support the settlement till 1755. Many of the settlers, however, soon deserted. The soil was barren, the climate severe, and the Indians numerous and hostile, and prompted to war, and furnished with weapons by the Canadian French. The progress of the settlement for the first 11 years was extremely slow.

1760. The capture of Canada this year relieved the settlers of their dangers from the Indians and French. Emigrants came over from England in great numbers, and the prospects of the colony began to brighten.

1763. Nova-Scotia by the treaty of Paris was finally ceded to Great Britain. Since that time the province has advanced rapidly in commerce and population.

Religion. The established religion is that of the church of England. The diocese of Nova-Scotia includes New-Brunswick, Cape Breton, and St. John's island. It was first made a bishopric in 1787. There are 19 missions. The ministers are supported partly by the society in England and partly by the government. The Presbyterian clergyman at Halifax has the same allowance from government, as any clergyman of the church of England.

Government and Laws. At the settlement of Halifax, in 1749, the government of Nova-Scotia was unconnected with any of the neighboring colonies; but in 1763 New-Brunswick and Cape Breton were joined to it, and the whole was under one governor. Thus it remained till 1784, when Canada was made the seat of a general government, to which Nova-Scotia, New-Brunswick, Cape Breton and St. John's island were in a manner made subject. The governor-general, however, had no power but in the province where he resided. In 1808, the civil and military authorities were joined in the person of the present governor, sir George Prevost, baronet,* and the provinces of Nova-Scotia, New-Brunswick, St. John's, and Cape Breton, erected into one military command of which he is the head.

The legislature consists of three authorities, the governor, the council, and the house of representatives.

The power of the governor varies with his instructions.

The powers of the two houses of assembly resemble those of the parliament.

The house of representatives consists of 59 members; 20 of whom are county members, and the remainder are sent by the different townships. Their proceedings are regulated by the parliamentary precedents of Great Britain.

The common law of England is in full force in Nova-Scotia, and all statutes made before the settling of the colony, except such as are inapplicable to the state of the country. There are also several statutes made by the legislature of the province; but few, however, that alter the operation of English laws. The supreme court possesses the joint jurisdiction of the courts of exchequer, king's bench, and common pleas; and the practice is the same as in those tribunals. This court consists of a chief justice, appointed and supported by the crown; and of three puisne judges, nominated by the governor, and paid by the province. The governor is the chancellor. He is assisted by two masters in chancery. The judge of the court of admiralty is appointed by the king. The practice of these courts resembles that of the same courts in England. The council of the province is a court of errors, a high court of appeals, and a court of marriage and divorce. An appeal lies from the inferior courts to the council, and from them to the privy council, if the matter in dispute be above 500*l.* Few instances have occurred of such an appeal. All these courts are held in Halifax. Besides these there is an inferior court in every county, at which the custos rotularum, or oldest magistrate, presides. Each county also has a court for the probate of wills.

Divisions. Nova-Scotia is divided into the following counties and townships:

Counties.	Townships.	By whom settled.
Halifax, lying partly on the Atlantic, and extending from Lunenburgh county to St.	Halifax Londonderry Truro Onslow	Irish and Scotch

* Sir George Prevost is now (Sept. 1811) governor general of all the British provinces in North-America.

Counties.	Townships.	By whom settled.
Mary's river on the N. E. and partly lying on the bay of Fundy and the gulf.	Colchester	New-Englanders
	Lawrence Town	
	Pictou	Scotch
Hants, lying on the bason of Minas and river Pigaquid.	Windsor	Irish and Scotch
	Falmouth, Newport	New-Englanders
	Rawdon, Douglas	Scotch
King's, lying on the bay of Fundy.	Cornwallis	
	Horton	New-Englanders
	Parrsborough	
Annapolis, lying on the bay of Fundy.	Aylesford	
	Dilmot	
	Pamille	
	Annapolis	
	Clements	American refugees intermixed with a few German and Acadian families
	Digby	
	Clara	
	New-Edinburgh	
Shelburne, bounded S. and E. by the Atlantic and W. by Annapolis county.	Shelburne	
	Argyle	American refugees
	Yarmouth	
	Barrington	
	Tasket	
	Palmio	A few Acadians
Queen's, bounded S. by Shelburne co. E. by the Atlantic and W. by Annapolis co.	Liverpool	New-Englanders
Lunenburgh, bounded N. by Halifax county, S. by Queen's, E. by the Atlantic, W. by part of Annapolis county and part of Hants.	Lunenburgh	Germans
	Chester	
	New-Dublin	
Sydney, bounded E. by the Atlantic, N. and W. by the gut of Canceau and the gulf and S. by Halifax county.	Manchester or Gaysborough	American settlers and fishermen
Cumberland, bounded on the N. E. by the straits of Northumberland, S. W. by the bay of Fundy, E. by Halifax county and W. by the New-Brunswick line.	Cumberland	English and American settlers
	Amherst	

Population. The number of inhabitants amounts to between 70,000 and 80,000. The great body of the people are of English origin. Considerable numbers have settled there from Massachusetts and Connecticut. After these the Scotch and Irish are most numerous. There are a few Germans, also, and a few French Acadians.

The Mickmacks were the aborigines of the province. They inhabit the eastern shore, between Halifax and Cape Breton. They are supposed now to have about 300 fighting men. Their numbers are fast diminishing.

Seminaries of Learning. In the year 1789 a seminary, called King's college, was established by an act of the legislature of the province at Windsor, in the county of Hants, and was put under the care of a president, whose salary was fixed. The governor, lieutenant governor, bishop, chief justice, secretary of the province, speaker of the house of assembly, and the attorney and solicitor general, were appointed overseers, as a body corporate. A charter was promised them by government; but various causes prevented its being granted, until the year 1802; when it was passed, and a liberal fund established for the support of the institution. The judge of admiralty was added to the number of overseers. A valuable library was purchased and sent out There are three scholarships of 30 pounds per annum, established by the society for the propagation of the gospel, for the encouragement of students in divinity. The university scholarships are only 20 pounds per annum. The president's salary is 400 pounds sterling, that of the professors 100 pounds.

Almost every village in the province has a small school; and each mission has a schoolmaster, who receives a salary from the society for the propagation of the gospel.

Chief Towns. HALIFAX, the capital of the province, is situated in latitude 44 40 north, on a spacious and commodious harbor, of a bold and safe entrance. The town is built on the west side of the harbor, on the declivity of a commanding hill, whose summit is more than 300 feet above the level of the sea. The town is laid out in oblong squares. The streets cut each other at right angles. The town and suburbs are about two miles in length, the general breadth is a quarter of a mile. It contains 1000 houses and 8000 inhabitants. It is regularly built, and, until within the last five or six years, the houses were entirely of wood. Brick is now more used than formerly. The government house is a large edifice situated in the south suburbs of the town. I is built wholly of hewn stone, produced and manufactured in the colony. Almost all the public buildings are of wood. At the north end of the town is the king's naval yard, completely supplied with stores of every kind for the navy. Halifax is reckoned inferior to no place in British America for a seat of government; as well from the harbour being open and accessible, at all seasons of the year, as from its easy entrance, and its proximity to the principal interior settlements of the province. The country around the town is very rocky, and the soil bad, and in general very unfit for cultivation.

PICTOU is a growing settlement in the county of Halifax. It is built on the bay of Pictou, on the northeast coast of the province, nearly opposite the southeast end of the island of St. John's, and about one hundred miles distant from Halifax, with which place it has a free and speedy communication. It contains 40 houses, and 500 inhabitants, who are chiefly Scotch. A few years ago, it was a small, insignificant place, but is now the most flourishing in the province. Its trade consists chiefly in the exportation of timber, great quantities of which are shipped, every year, to Great Britain and Ireland; and dry goods brought in return.

LIVERPOOL is a commercial settlement on the sea coast in Queen's county. It is built on Liverpool bay, and contains 200 houses. The inhabitants are generally Americans, and almost all merchants or mariners; many are both. The town is regularly built on one long street. The trade is chiefly in fish and lumber to the West-Indies and Spain.

The other principal towns are Lunenburgh, Barrington, Argyle, Yarmouth, Digley, Annapolis, and Windsor.

Shelburne and Manchester once so flourishing and populous, are now almost deserted. The former in 1783, contained 600 families; now (1811) it has not as many individuals. In Manchester, in the same year, there were 200 houses, or rather huts; now there are 5 houses and 3 barns.

Roads. The revenue of the province has been laid out by the present governor, Sir George Prevost, almost entirely in the improvement of old roads, and the opening of new ones. In 1810, not less than 10,000 pounds was expended in this manner.

The principal post road in the province is that from Halifax to Digby. Carriages of any description may pass this road with great safety and expedition. The distance is 150 miles, and the mail goes once a week. There are two packets established between Digby and St. John's in New-Brunswick, for the conveyance of the mails over the bay of Fundy. Both cross once a week. There are two roads from Halifax to Pictou; one, the old road through Truro, 100 miles long; the other, the new road by the head of Marquadaboit, 110 miles long. The mail travels this road once a fortnight.

There are two roads to Cumberland: one, by Colchester, 134 miles; the other by Windsor, 118 miles. A packet boat sails every week in the summer from Windsor to Parrsborough, on the opposite side of the bason of Minas.

In short, there is no settlement in the province, which has not a road opened with Halifax; and the traveller may ride from the bay Verte round all the coast to Chignecto bay, without meeting any other interruption than from rivers.

Trade. Since the year 1753, this province has increased in wealth and commerce in a degree scarcely credible. In 1753, the exports amounted to 29,552 pounds; the imports to 934 pounds. In 1810, the imports from Great Britain alone, into the single port of Halifax amounted to 600,000 pounds; and the imports into the whole province to 1,200,000 pounds.

The exports consist chiefly of timber, fish, and lumber, to Great Britain and the West-Indies. The export of timber has of late years been very extensive, and the numerous harbors, from the bay of Chaleurs, to the bay of Fundy, inclusive, have been covered with vessels for cargoes of timber. More than 200,000 tons were exported from that district in 1810. The fisheries, however, afford the principal article of export. The coast abounds with cod, salmon, mackerel, haddock, herring, and alewives. The mackerel are caught in great quantities on the coasts in the county of Sydney. There is a herring fishery on the shores of the bason of Annapolis. The settlers smoke them, and send them to the United States and to the West-Indies. Shad are caught in great quantities in the small rivers, and in the bason of Minas.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. BAYS. CAPES. LAKES. RIVERS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL SPRINGS.

Climate and Seasons. THE winters of Nova-Scotia are generally mild and salubrious. The average height of the thermometer, in the winter of 1809, was, at Windsor, 30°. Once it was as low as 15°. During that winter the harbor of Halifax was frozen over, which had not happened for 20 years. From 1717, to 1807, the winters were mild, and were thought to be growing milder. Since 1807 they have been uniformly much more severe. The average height of the thermometer, in the summer of 1810, was 68°. Once it was up to 98°, and, in the month of August, 1799, it rose to 100°. It never was higher in the province. The spring is usually late, and the weather rainy and unhealthy. The summer is warm, though seldom to an excess. The rains are not often violent, and rarely continue long. The first two months of the autumn are healthy, mild, and pleasant.

The accounts that are given of the continual fogs of Nova-Scotia are very much exaggerated. In the interior a sea-fog is hardly known. And, though Halifax and other places on the coast are often visited with it in the summer, yet it seldom advances more than 8 or 10 miles into the country.

Face of the Country. The N. E. shores present to the stranger a gloomy and forbidding appearance. Between Halifax and Torbay the settlements are poor, and few; and the shore rocky and barren. Many miles of coast are formed of mere rock, with a very scanty covering of soil, often without any. For a considerable distance into the interior, also, the country wears the same discouraging appearance. The settlers here are Scotch and Irish fishermen, who are Roman Catholics, and live in extreme poverty. One hut frequently contains two families with their live stock.

The S. W. coast bears the marks of industry and cultivation, particularly the county of Lunenburgh; which, though small, is one of the most flourishing, and opulent; and far more so, than its neighboring counties, Queen's and Shelburne. Annapolis, King's, and Hants, have many flourishing settlements. All the counties that border on the bay of Fundy are mountainous, and the uncleared hills are covered with hard wood of various kinds.

The highest land in the province is Ardoise hill, about 34 miles N. W. of Halifax. It is one of an extensive range of hills, beginning at the shore of the bason of Minas, near the settlement of Noel, and running 15 or 18 miles eastward, and then in a south course almost parallel with the bay of Fundy, until it meets the sea near cape St. Mary.

Another range of mountains runs from the southwest shore of the bason of Minas, along the bay of Fundy, as far as Annapolis.

The northwest extremity of this range is 430 feet high.

The most remarkable land on the south shore of Nova-Scotia is the high land of Aspotageon, which lies on the promontory which separates Mahone from Margaret's bay. This land may be seen at a great distance from the offing, and is the land generally made by ships bound from Europe and the West-Indies to Halifax. The summit of this land is about 500 feet perpendicular from the level of the sea.

In King's county there are more than 10,000 acres of marsh land that is dyked, and 3000 that is not dyked. In Cumberland county there are 20,000 acres of dyked marsh land in one body. There are also great quantities of the same land in Annapolis and Hants counties.

Soil and Agriculture. The soil of these counties is rich and productive, and in general consists of a coarse loam; except on the plains between Annapolis river and the mountains, and the shores of the bay. There it is sandy and dry. Grain grows abundantly in every part of these counties; and enough might be raised in them to supply the whole of Nova-Scotia.

The soil, in the counties on the sea coast, is generally barren, and the agriculture very little improved. This, however, is partly owing to the fact, that the inhabitants are so generally engaged in the fisheries. The consequence is, that almost all the land retains its ancient covering of pine, spruce, fir, and hemlock. The county of Lunenburgh is an entire exception to these remarks.

The country west of cape Canceau is more improved, and there are many flourishing settlements.

Bays. Between Canceau, and cape Sable, the two extremities of this province, there are perhaps more bays and harbors than on any other coast in the world.

The bay of Fundy is the largest, except the gulf of St. Lawrence, which has been already described. This bay puts up between New-Brunswick and Nova-Scotia, from the south, about 150 miles. Its breadth at its mouth is 100 miles; but from the gut of Annapolis to St. John's is only 36 miles. The bay branches towards the north. The western branch is called Chignecto chan-

nel; the eastern the bason of Minas. The southeast arm of this bason is called Cobequid bay. Tides rise in the bay of Fundy 30 feet, in the Bason of Minas 40 feet, in Chignecto channel 60 feet. The rise of the tide is very rapid.

Between cape Canceau and cape Sable, are perhaps more bays and harbors, than on any other coast in the world of equal extent. The most remarkable are the harbors of Canceau, 45 leagues northeast of Halifax; Torbay, St. Catherine's bay, Country, Siscomb's, Beaver, Sheet, and Ship harbors, Jeddore, Tangier, Chebucto, St. Margaret's, and Mahone bays; Liverpool harbor, Port Rouway, Barrington, and Robomcoups bays.

To these may be added Verte, Pictou, and Chedabucto bays on the coast northwest of cape Canceau; Townshend's bay in the county of Shelburne; and St. Mary's in the county of Annapolis.

Capes. The principal capes are cape Sable, at the southern, and cape Canceau, at the northern extremity of the province; cape Blowmidown, at the south side of the entrance from the bay of Fundy into the bason of Minas, and cape d'Or on the north side; cape Split to the west of cape Blowmidown, and Chignecto cape, to the west of cape d'Or; cape St. Mary, the southwest extremity of the province; cape Negro, Sambro's Head, Pope's Head, and cape Lewis, now cape St. George.

Lakes. There are few lakes in the province of any considerable size. The largest, lake Rossignal, is 20 miles from Annapolis, between that place and Shelburne. It is the source of Liverpool river. Porter's lake lies a little east of Halifax, and empties its waters into the ocean about 15 miles east of that place. It is 15 miles long, and one half a mile broad. Potowack, or Chester lake, is on the road from Chester to Windsor, 15 miles from the former. Shubenaccadie is 20 miles from Halifax, and 7 from Windsor.

Rivers. Annapolis river runs in King's county, and flows 47 miles into Annapolis bason. It is navigable at high tides, for vessels of 100 tons, 14 miles. The Shubenaccadie, rising one mile from Dartmouth, runs 55 miles, and empties into Chebequid bay. It forms several lakes in its course, and is joined by Guy's river about 30, and by the Stewiack, 18 miles from its mouth. The Pigaquid rises in the county of Lunenburgh, 8 miles from Chester, and after a course of 29 miles, falls into the bason of Minas. Near its mouth it receives the St. Croix, Kennetcook, and Wemiguen. The tide flows up very rapidly 16 miles. Vessels of 400 tons go up at high tide 10 miles to Windsor, and those of 100 tons, 5 miles farther.

Botany. The natural productions of the soil are the same as those of the United States.

Zoology. The animals also resemble those of New-England, but they are not so numerous.

Mineralogy. There are mines of various descriptions in many parts of the province; but it is very doubtful whether, in the present state of the country, any of them would pay the expense of opening and working.

A good deal of iron ore has been found near Annapolis. Pieces of

copper ore were found some years ago at cape d'Or and Haute isle, and near cape Chignecto, but none lately.

There are many extensive coal mines at Cumberland, and others in many parts of the province; but none are worked, except a small one near Cobequid, from which the neighbouring settlers get the chief part of their fuel. Halifax, the only place where coal is generally burned, is supplied from cape Breton and Scotland.

The province abounds in limestone, which is found in every county Great quantities of gypsum are quarried in Hants, and at Canceau, and exported to the other provinces and the United States. There are extensive quarries of freestone near Pictou.

Mineral Springs. Near Windsor, in Hants county, is a strong chalybeate spring, but its properties have never been ascertained. The earth around is strongly impregnated with iron, and its waters are wonderfully cathartic. There is another of the same appearance and qualities near Shelburne, and one near Pictou.

PROVINCE OF NEW-BRUNSWICK.

BOUNDARIES. POPULATION. CHIEF TOWNS. RIVERS, SOIL, &c. BAYS AND LAKES. TRADE. FORTS. ANIMALS. INDIANS. HISTORY.

Boundaries. BOUNDED west by the District of Maine, from which it is separated by the river St. Croix, and a line drawn due north from its source to Canada line; north by the southern boundary of the province of Lower Canada, until it touches the sea-shore at the western extremity of Chaleur bay: then following the various windings of the sea shore to the bay of Verte, in the straits of Northumberland; on the southeast it is divided from Nova-Scotia by the several windings of the Missiquash river from its confluence with Beau bason, (at the head of Chignecto channel) to its main source; and from thence by a due east line to the bay of Verte, before mentioned: The northern shores of the bay of Fundy constitute the remainder of the southern boundary. Several islands in Passamaquoddy bay are also within the limits of the province.

This province formed a part of the province of Nova-Scotia, until the year 1784, when for the convenience of the loyalists, who had resorted here from the United States, it was erected into a separate province.

Population. The number of inhabitants in this province probably exceeds 40,000, although we have no means of ascertaining how far.

Chief Towns. The city of St. John, the capital of this province, is situated on high ground, at the mouth of the river St. John. The streets are spacious and regular. It contains upwards of 1000 inhabitants, several well built houses, a handsome church and city hall. This city was incorporated 1785, during the governor's residence there, and is governed by a mayor, recorder, six aldermen, and six

assistants, the two former appointed by the governor, the latter chosen annually by the inhabitants in their respective wards, into 6 of which the city is divided, four on the eastern, and two on the western side of the harbor; the two latter comprehend the district originally called Carleton, including the ruins of Fort Frederick. The tides rise here, sometimes upwards of 30 feet, in consequence of which, this harbor is never obstructed by ice, but open for navigation through the whole winter. A light-house has been erected on Partridge island, at the entrance of the harbor.

Frederickton, the present seat of government, formerly called St. Anne's, lies about 80 miles up the river St. John, at the head of sloop navigation. This town is regularly laid out, in spacious streets, crossing each other at right angles, upon a plain. It has a church, an elegant province hall, for the accommodation of the general assembly and courts of justice, and several well built houses. It has upwards of 500 inhabitants. In this town and its vicinity, several valuable tracts of land are appropriated for the support of a college, and vested in a corporation, erected by charter for the government of this institution, the foundations of which have been thus wisely laid by the governor.

St. Andrews, situated in the rear of an island of that name on the east side of an arm (called Scoodic) of the inner bay of Passamaquoddy, is very regularly laid out in the form of an oblong square. It has but few houses, built on a small scale. The few inhabitants it contains are chiefly employed in the lumber trade. The common tides rise here about 18 feet.

Rivers, Soil, &c. St. John is the principal river in this province. From its entrance into the bay of Fundy, to its main source, is computed to be 350 miles. The tide flows 80 or 90 miles up this river, It is navigable for sloops of 50 tons 60 miles, and for boats 200. Its general course from its source is E. S. E. It is the common route to Quebec. It furnishes the inhabitants with herring, salmon, bass and sturgeon. About one mile above the city of St. John is the only entrance into this river. It is about 80 or 100 yards wide, and about 400 yards in length. This passage is called *the falls* of the river. It being narrow, and a ridge of rocks running across the bottom of the channel, on which are not above 17 feet of water, it is not sufficiently spacious to discharge the fresh waters of the rivers above. The common tides flowing here about 20 feet, the waters of the river, at low water, are about 12 feet higher than the waters of the sea; at high water, the waters of the sea are about five feet higher than the waters of the river; so that in every tide there are two falls, one outwards and one inwards. The only time of passing with safety is at the time when the waters of the river are level with the waters of the sea, which is twice in a tide, and continues not more than *twenty minutes* each time. At other times it is impassable, or extremely dangerous. This passage resembles that at Hell Gate, near New-York. The banks of this river, enriched by the annual freshets, are excellent land. About 30 miles from the mouth of this river commences a fine level country of rich intervale and meadow lands, well clothed with timber and wood, such as pine,

beech, elm, maple and birch. This river has many tributary streams, which fall into it from each side, among which are the Oromocto river, (by which the Indians have a communication with Passamaquoddy) the Nashwach and Madamkiswick, on which are rich intervales, that produce all kinds of grain, in the highest perfection.

There is good intervale land also on the Kennebeccasis, an eastern branch of the St. John, which empties 3 miles above the falls. It runs nearly parallel with the bay of Fundy, and has its source about 50 miles eastward, near the source of the Petitcodiac, and passes through Sussex vale, a well inhabited and remarkably fertile tract of land, on which stands the academy for the instruction of the Indians, erected under the direction of the "Incorporated Company for the Propagation of the Gospel in New-England, and parts adjacent in America." This charitable institution was transferred from New-England to this province after the peace of 1783. At this academy 40 Indian children are fed, clothed, and instructed, under the direction of a board of commissioners, of which the governor of the province is president.

This noble river, in its numerous and extensive branches, waters and enriches a large tract of excellent country, a great part of which is settled and under improvement. The uplands, in general, are covered with a fine growth of timber, such as pine and spruce, hemlock and hard wood, principally beech, birch, maple, and some ash. The pines on this river are the largest to be met with in British America, and afford a considerable supply of masts (some from 20 to 30 inches diameter) for the British navy.

There are 3 rivers which fall into the bay of Passamaquoddy; the largest is called by the modern Indians the Scoodic; but by De Mons and Champlaine, Etchemins. Its main source is near Penobscot river, with which the Indians have a communication; the carrying place between the two rivers is but 3 miles. The rivers which fall into Passamaquoddy bay have intervales and meadows on their banks, and were formerly covered with a large growth of timber, as appears from the remaining large trunks of trees which are still visible. The Indians say, that about 50 years ago, in a very dry season, a great fire destroyed most of the timber on the east side of Passamaquoddy bay, and particularly on the Magaguadavic or Eastern river, which falls into the bay, where it raged with great violence, and spread as far eastward as the river which falls into the St. John, and extended northerly and westerly beyond the Dickwasset or Digdequash river, which falls into the same side of the bay.

Merramichi river, on the northeast coast of New-Brunswick, falls into the head of a bay of the same name. A little above its confluence with the bay, it forms into two branches, and runs through a fertile tract of intervale; and the land in general in this quarter is well clothed with timber of various kinds. From this river there is a communication with the St. John, partly by land, but principally by water carriage, in canoes. The salmon fishery is carried on to good advantage, and the cod fishery is improving near the entrance of the bay.

Petitcodiac river falls into an arm of the bay of Fundy, called Chignecto channel. From its confluence, after a course of some miles northerly, it takes a western direction; and the Indians have a communication from the head of it with St. John's river, by a portage across to the head of Kennebeccasis. Memramcook river is eastward of Petitcodiac, and takes a northeasterly direction.

The rivers Ristigouche and Nipisiguit, run from west to east into Chaleurs and Nipisiguit bays, which communicate with the gulf of St. Lawrence The river St. Croix empties into Passamaquoddy bay, and forms a part of the boundary between New-Brunswick and Maine.

Bays and Lakes. The coast of this province is indented with numerous bays and commodious harbors. The principal are Chaleur, Merramichi, Verte, which is separated from the bay of Fundy by a narrow isthmus of about 18 miles wide; bay of Fundy which extends 50 leagues into the country; Chenigto or Chignecto bay at the head of Fundy bay; Passamaquoddy bay, bordering on the District of Maine. At the entrance of this bay is an island, granted to several gentlemen in Liverpool in Lancashire, who named it Campobella. At a very considerable expense, they attempted to form a settlement here, but failed. On several other islands in this bay there are settlements made by people from Massachusetts. Among the lakes in this province, which are very numerous, and as yet without names, is Grand lake, near St. John's river, about 30 miles long, and 8 or 10 broad, and in some places 40 fathoms deep.

Trade, Forts, Animals, Indians, History, &c. See Nova-Scotia.

ISLAND OF CAPE BRETON.

SITUATION AND EXTENT. FACE OF THE COUNTRY. HARBORS. LAKE. SOIL AND PRODUCTIONS. POPULATION. GOVERNMENT. CHIEF TOWNS. MINES. POLITICAL IMPORTANCE. TRADE. HISTORY.

Situation and Extent. THIS island formerly called by the French, *Isle Royale*, lies between lat. 45 28 and 47° N. and between lon. 59 44 and 61 29 W. from London, and about 45 leagues to the eastward of Halifax. It is about 109 miles in length; and from 20 to 84 in breadth; and is separated from Nova-Scotia by a narrow strait, called the Gut of Canso, which is a communication between the Atlantic ocean and the gulf of St. Lawrence.

Face of the Country. The shores of the island are bold and safe to approach. On the eastern side the land is low, but on the northwest the cliffs are high.

Harbors. The principal harbors are Arichat, Louisburg, Main, or Dieu Spanish river, and St. Ann's on the eastern side; and on the western side Port Hood, Margaret, Chetican, and St. Peter's, which last is a very commodious place for carrying on the fishery.

Lake. The Bras d'Or is a large lake of water which nearly intersects the island, in a line from north to south, leaving a portage of only a quarter of a mile between the lake and the sea. A number of large rivers empty themselves into the Bras d'Or, and open an easy communication with all parts of the island.

Soil and Productions. There is a great proportion of arable land on this island; that on the banks of the lake is considered equal to any in North-America. The island abounds in timber and hard wood, such as pine, beech, birch, maple, spruce and fir. When the French had possession of the island great numbers of masts were cut here, and shipped for France.

Population. On this island there are about 3000 (Pinkerton says 1000) inhabitants, of which number two thirds are French Acadians.

Government. The legislative power of the island is in the hands of the lieutenant governor and council, who are appointed by the king, as are all the other officers of the government. The expense of the establishment, paid by the British government, amounts annually to 2200*l.* sterling.

Chief Towns. The principal towns are Sydney and Arichat. Sydney is the seat of government, and is built on the southeast branch of Spanish river. Very handsome barracks were erected here in 1785, and at present a garrison is kept here of 200 men, under the command of a major-general, who is president of the council, and who commands in the absence of the lieutenant governor.

Arichat is the next place in consequence to Sydney. It is situated on the isle Madam, and entirely inhabited by fishermen. A number of merchants from the islands of Jersey and Guernsey carry on the fishery at Arichat; and, before the present war, loaded from 20 to 25 sail of square rigged vessels at this port with dry cod-fish; but at present this trade is much declined.

Mines. At the mouth of Spanish river are the coal mines, which at present are open; they are a royalty and yield a revenue of 12000*l.* yearly.*

Political Importance. This island, or rather Louisburg, may be considered as the *Dunkirk* of North-America, and the *key* to Canada; and the very valuable fishery in its neighborhood depends for its protection on the possession of this place, as no nation can carry it on without some convenient harbor of strength to supply and protect it, and Louisburg is the principal one for these purposes.

Trade. The peltry trade was ever a very inconsiderable object. It consisted only in the skins of a few lynxes, elks, musk-rats, wild-cats, bears, otters, and foxes, both of a red, silver and grey colour. Some of these were procured from a colony of Micmac Indians, who had settled on the island with the French, and never could raise more than 60 men able to bear arms. The rest came from St. John or the neighboring continent. Greater advantages are now derived from the coal mines, which are situated near the entrance of the harbor, the working of which, and the fishery, are the chief employment of the inhabitants. They lie in a horizontal direction;

* Rees' Cyclopedia.

and being no more than 6 or 8 feet below the surface, may be worked without digging deep, or draining off the waters. Notwithstanding the demand for this coal from New-England, from the year 1745 to 1749, these mines would probably have been forsaken, had not the ships which were sent out to the French islands wanted ballast. In one of these mines, a fire has been kindled, which could never yet be extinguished.

In 1743, while this island belonged to the French, they caught 1,149,000 quintals of dry fish, and 3,500,000 do. of mud fish, the value of both which, including 3,116¼ tons of train oil, drawn from the blubber, amounted to 926,577*l.* 10*s.* sterling, according to the prime cost of the fish at Newfoundland. The whole value of this trade, annually, at that period, amounted to a million sterling. No less than 564 ships, besides shallops, and 27,000 seamen, were employed in this trade. Charlevoix, in his history of France, says, "This fishery is a more valuable source of wealth and power to France, than even the mines of Peru and Mexico would be." At present the inhabitants of this island take about 30,000 quintals of fish, annually, which are shipped for Spain and the Strait principally by merchants from Jersey (in England) who yearly resort here, and keep stores of supplies for the fishermen.

History. Though some fishermen had long resorted to this island every summer, the French, who took possession of it in August, 1713, were properly the first settled inhabitants. They changed its name to that of *Isle Royale* and fixed upon fort Dauphin for their principal settlement. This harbor was 2 leagues in circumference. The ships came to the very shore, and were sheltered from the winds. Forests, affording oak sufficient to fortify and build a large city, were near at hand; the ground appeared less barren than in other parts, and the fishery was more plentiful. This harbor might have been rendered impregnable at a trifling expense; but the difficulty of approaching it (a circumstance that had at first made a stronger impression than the advantages resulting from it) occasioned it to be abandoned, after great labour had been bestowed upon the undertaking. They then turned their views to Louisburg, the access to which was easier; and convenience was thus preferred to security: The fortification of Louisburg, however, was not begun till 1720.

In the year 1714, some fishermen, who till then had lived in Newfoundland, settled in this island. It was expected that their number would soon have been increased by the Acadians, who were at liberty from the treaties that had been granted them, to remove with all their effects, and even to dispose of their estates; but these hopes were disappointed. The Acadians chose rather to retain their possessions under the dominion of Britain, than to give them up for any precarious advantage they might derive from their attachment to France. Their place was supplied by some distressed adventurers from Europe, who came over from time to time to Cape Breton; and the number of inhabitants gradually increased to 4000. They were settled at Louisburg, Fort Dauphin, Port Tou-

louse, Neruka, and on all the coasts where they found a proper beach for drying the cod.

This island remained in possession of the French till 1745, when it was captured for the crown of Great Britain by a body of troops from New-England under the command of lieutenant general William Pepperell. For the authentic particulars of this important and successful expedition, see Hist. Coll. Vol. I. also Encyclopedia Brittanica, article Breton.

ISLAND OF ST. JOHN.

SITUATION AND EXTENT. SOIL AND PRODUCTIONS. CAPITAL. POPULATION. GOVERNMENT.

Situation and Extent. THIS island is pleasantly situated in the gulf of St. Lawrence, near the northern coast of the province of Nova-Scotia, and is 103 miles long, and from 10 to 35 broad; or, according to Pinkerton, 60 long and 35 broad.

Soil and Productions. Its soil is rich and watered by several fine rivers. While the French possessed this island they improved it to so much advantage as that it was called the granary of Canada, which it furnished with great plenty of corn, as well as beef and pork.

Capital. Charlottetown is its principal town and is the residence of the lieutenant governor, who is the chief officer on the island.

Population. The number of inhabitants at present is estimated at about 5000. In 1745 they amounted to 4000, all of whom, upon its reduction in that year, quietly submitted to the British arms.

Government. This island is attached to the province of Nova-Scotia.

The other islands in the gulf of St. Lawrence worthy of notice, are,

ANTICOSTI, near the mouth of St. Lawrence river, about 120 miles long and 30 broad. It has no convenient harbor, and is uninhabited.

The MAGDALEN ISLES, lying in 61 40 W. lon. and between 47 13 to 47 42 N. lat. and inhabited by a few fishermen. These islands were formerly frequented by sea-cows, but they are now become scarce.

ISLE PERCEE, about 15 miles south of cape Gaspre, is a small but remarkable island, being "a perpendicular rock, *pierced* with 2 natural arches, through which the sea flows. One of these arches is sufficiently high to admit a large boat to pass freely through it."*

* Freeman.

UNITED STATES OF AMERICA.*

(EXCLUSIVE OF LOUISIANA.)

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. ORIGINAL POPULATION. HISTORICAL EPOCHS. ANTIQUITIES. RELIGION. GOVERNMENT. COURTS. LAWS. POPULATION. ARMY. NAVY. REVENUE. PUBLIC DEBT. NATIONAL FUNDS. MINT. POST OFFICE. BANKS. MANNERS AND CUSTOMS. LANGUAGES. LITERATURE. ARTS. UNIVERSITIES. CITIES. ROADS. INLAND NAVIGATION. MANUFACTURES AND COMMERCE.

Extent. THE United States lie between lat. 30° and 49 37 N.† and between lon. 67° and 95 6 W.‡ The distance from the southern bend of the St. Mary to the parallel of the northern limit of the lake of the Woods is 1390 miles. The breadth of the country, in lat. 31°, is 620 miles; in lat. 36°, 790; in lat. 42°, 1130; and in lat. 47°, 1320. It contains about 1,000,000 square miles, or 640,000,000 acres, of which 51,000,000 are supposed, by Capt. Hutchins, to be covered with water.

Boundaries. Bounded N. by Upper and Lower Canada; E. by New-Brunswick, and the Atlantic; S. by East and West-Florida; W. by the Missisippi which divides it from Louisiana.

The boundary is more particularly defined by the treaty of 1783. It commences at the mouth of the river St. Croix, and ascends that river to its source. Thence it takes a due north course to the highlands, separating those rivers, which fall into the St. Lawrence, from those, which empty into the Atlantic; and passes along the highlands to the northernmost head of Connecticut river; thence down the middle of that river to lat. 45° N. thence due west to the St. Lawrence; thence along the middle of the St. Lawrence, lake Ontario, Niagara river, lake Erie, Detroit river, lake St. Clair, Huron river, lake Huron, St. Mary's straits and lake Superior; thence from the shore of that lake across the Grand Portage to Winnipec river, and down the middle of that river, through Rainy lake, to the northwest corner of the lake of the Woods; thence due west to the Missisippi, and down the middle of that river to lat. 31°; thence due east to the middle of the Apalachicola, and down that river to its junction with Flint river; thence, in a straight line, to the head of St. Mary's river, and down that river to the ocean.

Original Population. The aborigines of the United States were divided into numerous independent tribes; but, those in the New-

* Louisiana may now be considered as part of the United States; but is not included within the following limits, but considered under a separate head, as an annexed territory.

† The most southern bend of St. Mary's river, is in lat. 30° N. and the northwestern extremity of the lake of the Woods, is in lat 49 37 N. (See I. M'Kenzie, 72.)

‡ The District of Maine does not go farther east than lon. 67° W. The head of the Missisippi is in lon. 95 6 W. (See I. M'Kenzie, 72.)

England and middle states composed two, and only two, distinct nations. These were the Moheakanneews, and the Iroquois. We call them nations, not because they formed a body politic, governed by the same laws, and obeying the same sovereign; but because they spoke a common language, and acknowledged a common origin. The Moheakanneews first settled the New-England and middle states, and had probably been here centuries before the Iroquois intruded upon them from the northwest. All the Indians north of the Potowmac, east of the Missisippi, and south of the St. Lawrence, except the Iroquois, are known to have been tribes of this nation. The tribes south of the Potowmac were the Cherokees, the Creeks, the Chickasaws, Chactaws and Tuscaroras. These are known to be distinct nations from the Moheakanneews; though far less attention has been paid to the history of the southern Indians, than to that of the Indians of New-England.

MOHEAKANNEEWS. The Moheakanneews of New-England* composed 10 distinct tribes speaking different dialects of the same language. The Abenaguis or Tarrateens inhabited Maine; The Pigwackets, the eastern and southern parts of New-Hampshire; the [redacted] Indians, the western part of that state and the state of Vermont; the Wampanogas in the old colony of Plymouth; the Massachusetts round about Boston; the Nipnets in the county of Worcester; the Nashaways a small tribe in the same county; the Moheakanneews or Stockbridge Indians, in the county of Berkshire; the Narragansetts, in Rhode-Island; and the Pequods, in Connecticut. A succinct account of these various tribes will be given in the geography of the respective states. For the character and manners of these Indians we must refer our readers to the writers who have treated of the history of New-England.

IROQUOIS. The Iroquois occupied both sides of the Mohawk, and all the western part of the state of New-York, the northwestern parts of Pennsylvania, and a part of the country on lake Erie, in the state of Ohio. Their territories comprehended about 60,000 square miles. Their influence however was felt through all the adjoining

* The colonists, who peopled New-York, New-Jersey, Pennsylvania, Delaware, and Maryland, appear to have paid but little attention to the history of the Indians. On that account we are unable to enumerate the tribes of Moheakanneews, which occupied those states. We only know from the Indians themselves, particularly by one of their authors of the Stockbridge tribe, that those states were inhabited by men speaking the same language with themselves.

The Micmacs of Nova-Scotia, and the Marechites of New-Brunswick, are believed also to have been Moheakanneews.

The Knisteneaux were undoubtedly the same people with the Moheakanneews, for many of their words were the same, as appears from the vocabulary of M'Kenzie.

M'Kenzie, who was well acquainted with the language and character of the Knisteneaux, considers them also as originally the same people with the *Sioux* or Indians of Louisiana. The evidence of national identity in this case, is furnished principally by identity of language, and partially, also, by similarity of appearance, customs and traditions. The various tribes of Moheakanneews all understood each other: Their dialects were not more different from each other, than the Doric and Ionic; nor as much so as those of Yorkshire and Cornwall in England, or as those of Normandy and Provence in France.

country. They constituted 6 tribes, the Mohawks, Oneidas, Senecas, Cayugas, Onondagas, and Tuscaroras. The Mohawks were the oldest and most powerful tribe. The Tuscaroras were the youngest. They joined the confederacy long after the others, having migrated from North-Carolina.

Historical Epochs. The epochs of the discovery and settlement of the several states, have already been detailed. Nothing, therefore, need be mentioned under this article, which did not concern the United States as a nation; since all the events, which affected only the individual states will be mentioned under their respective histories.

1723. The British Government proposed to the colonies to form one general government. The object was to facilitate the collection of troops. This proposal was rejected.

1741. An expedition, British and American, went against the island of Cuba, but returned without accomplishing its objects.

1745. Louisbourg, a French fortress in the island of Cape Breton, was taken, June 16, by an expedition from New-England.

1754. A union of the colonies under one colonial government was again proposed, and prevented by the colony of Connecticut.

1755. An expedition from New-England subdued the French force in Nova-Scotia, and reduced the province.

The same year the British and Americans made an unsuccessful attempt to break up the French settlements on the Ohio. General Braddock, their leader, was killed.

The same year a French expedition from Canada, commanded by baron Dieskau, was defeated, on the shore of lake George, by sir W. Johnson.

1765. The stamp act passed the British Parliament. This was the first attempt to lay a direct tax on the colonies. The right to lay the tax was denied, and the first colonial congress was convened at New-York, which declared the rights and grievances of the colonies, and presented a petition to the king, and a memorial to both houses of parliament.

1773. The destruction of the tea in the town of Boston, and of the Gaspee schooner at Newport.

1775. The battle of Lexington on the 19th of April roused all America.

The provincial congress of Massachusetts immediately voted to raise an army of 30,000 men. On the 17th of June occurred the battle of Breed's-Hill, so honourable to American valor. About the same time, the articles of confederation were proposed by the second congress at Philadelphia. On July 2d, general Washington took the command of the American army.

1776. The British, March 17th, were compelled to evacuate Boston and sail for Halifax.

On July 4th, the colonies were declared independent. The British took possession of New-York, Sept. 15th, and in a short time the surrounding country fell into their hands. General Washington retreated across the Delaware.

1777. The Americans under gen. Washington were defeated at

Brandywine, Sept. 11. On the 17th of October gen. Burgoyne surrendered his whole army to gen. Gates.

1778. The treaty of alliance with France was formed Feb. 6.

1780. The defeat of the Americans at the battle of Camden.

1781. The defeat of the British, under Tarleton, by gen. Morgan, at the battle of the Cowpens, on the 17th of January. On the 8th of Sept. defeated col. Stewart at the battle of Eutaw, and cleared Carolina of the British troops.

On the 19th of October Cornwallis surrendered his army to gen. Washington in Virginia.

1782. Peace was concluded, on the 30th of November, between Great Britain and the United States.

The independence of America was acknowledged by Holland, April 19, 1782; by Sweden, Feb. 5; by Denmark, Feb. 25; by Spain, March 24; by Russia in July, 1773; by Prussia in 1785.

1787, Sept. 17th. The federal constitution was agreed on by delegates from all the states except Rhode Island.*

On the 30th of April, 1789, General Washington was inaugurated president of the United States at New-York; and reelected on the 4th of March, 1793. On the 4th of March, 1797, he relinquished the office of chief magistrate, to which he had been twice summoned by the gratitude of the American people; and, on the 14th of December, 1799, resigned a life of unrivalled usefulness and glory.

In March, 1797, John Adams, esquire, was appointed president of the United States. He continued in office 4 years. In 1801, Thomas Jefferson, esquire, was appointed to the same office, and reappointed in 1805. In 1809, James Madison, esquire, was elected to the same office. His period of service will expire, March 3d, 1813.

Antiquities. These will be mentioned in their places, in the respective states in which they exist.

Religion. The constitution establishes no one form of religion, but secures to every citizen the free exercise of his own. In a few of the states provision is made by law for its support; in the oth-

* The following exhibits at one view, the order, time, &c. in which the several states ratified the federal constitution.

				Majority.
Delaware,	December 3,	1787,	unanimously	
Pennsylvania,	December 12,		46 to 23	23
New-Jersey,	December 19,		unanimously	
Georgia,	January 2,	1788,	unanimously	
Connecticut,	January 9,		128 to 40	88
Massachusetts,	February 6,		187 to 168	19
Maryland,	April 28,		63 to 12	51
South-Carolina,	May 23,		149 to 73	76
New-Hampshire,	June 21,		57 to 46	11
Virginia,	June 25,		89 to 79	10
New-York,	July 26,		30 to 25	5
North-Carolina,	November 27,	1789,	193 to 75	118
Rhode Island,	May 29,	1790,		2
Vermont,	January 10,	1791,	by a great majority.	

ers, the people are left at liberty to support it, or not to do it, at their option. The public teachers of religion are maintained differently in different towns and states; all, however, in one or more of the following methods: by taxes, funds, pew rents, small glebes, land rents, or voluntary contributions.

The great body of the people denominate themselves Christians; a small proportion of them are Jews; a considerable number in the middle and southern states are open infidels; and a still greater number have yet their religion to choose.

The following are the denominations of Christians: Congregationalists, Presbyterians, Episcopalians, Friends, Methodists, Baptists, German Lutherans, Dutch Reformed, Roman Catholics, Moravians, Mennonists, Tunkers, Universalists, and Shakers.

The CONGREGATIONALISTS are the most numerous denomination. There are about 1000 congregations of this denomination in New-England, beside a considerable number scattered through the middle and southern states. Their whole number is probably not less than 1200, and nearly an equal number of ministers and candidates.

After them PRESBYTERIANS are the most numerous. They have a constitution and a confession of faith. Their supreme ecclesiastical judicatory is styled *The General Assembly of the Presbyterian Church.* Subordinate bodies are synods, presbyteries, and church-sessions. There were within the bounds of the general assembly in 1810, 5 synods, 36 presbyteries, 772 congregations, and 434 ministers; besides a considerable number of licentiates. The great body of the Presbyterians inhabit the middle and southern states.

The number of EPISCOPAL churches in 1808, in New-England, was 65, and of ministers, 48. In the middle states there were 68 churches and 66 ministers, and in the southern, 105 churches and 111 ministers: in all 240 churches and 213 ministers. Bishops have been consecrated in Vermont, Massachusetts, Connecticut, New-York, Pennsylvania, Maryland, Virginia, and South-Carolina. A bishop, with certain of his clergy, form a state convention. But the general convention of the protestant episcopal church, is the body to whose care the interests of the whole church are intrusted. This convention is composed of two houses: the house of bishops, and the house of delegates, consisting of clergymen and laymen.

The FRIENDS are most numerous in the middle states. There are scarcely any in New-England, except in Rhode Island. They compose about 400 congregations.

METHODISTS. The great body of this denomination live in the interior of the southern states, though they are scattered throughout the union; less numerous, however, in New-England, than in the middle states. They style themselves *The United Societies of the Methodist Episcopal Church.* Their number, in 1809, amounted to 159,500.* These are the Wesleian or American Methodists.

The BAPTISTS are independents in their government and discipline.

* Christian Observer, VIII. 670.

Of this denomination there were in 1793, 45 associations, 1032 churches, 1291 ministers, and 73,471 members. Their numbers have since increased.

The LUTHERANS have about 100 congregations in Pennsylvania and New-York. They are of German extraction. The *German Calvinists* are about equally numerous. These two denominations live together in perfect harmony.

The DUTCH REFORMED CHURCH contains about 80 congregations, composing one synod styled *The Dutch Reformed Synod of New-York and New-Jersey*. They hold the canons of Dordrecht, with some additional ones of their own, and adopt the Heidelberg catechism.

The ROMAN CATHOLICS are more numerous in Maryland, than in any other state. They probably amount to 75,000. They have one archbishop in Baltimore; and four bishops: one in Boston, one in New-York, one in Philadelphia, and one in Bardstown, Kentucky. Except in Maryland, they are found principally in the large cities, and are almost universally foreigners, or their immediate descendants.

The MORAVIANS, in 1788, amounted to about 2000 souls. Their principal settlements are Bethlehem, Nazareth, and Litiz in Pennsylvania, Hope in New-Jersey, and Wachovia, on the Yadkin, in North-Carolina. They style themselves *The United Brethren of the Protestant Episcopal Church*. They were introduced into America by count Zinzendorf, in 1741.

The MENNONISTS derive their name from Simon Menno, a German, who was born in 1505. In 1531 he became a Baptist. Some of his followers came into Germantown, Pennsylvania, in 1692. That is now their principal settlement. Their whole number in that state, in 1770, was upwards of 4000, divided into 13 churches, and 42 congregations, under the care of 15 clergymen, and 53 licentiates.

The TUNKERS (from *tunken, to put a morsel in sauce*) first appeared in America in 1719. Their principal settlement is Ephrata, 60 miles west of Philadelphia. In 1770 those in Pennsylvania were 2000 in number, beside a few in Maryland. They are merely German Universalists.

The UNIVERSALISTS are of two kinds, the followers of Dr. Chauncey, and those of Mr. John Murray. The latter sect has a number of churches, governed by a constitution formed in 1789, by a convention of their ministers at Philadelphia. Their congregations are not numerous; but the number of those, who hope that their doctrines are true, is increasing.

The SHAKERS are a small sect, which has existed in America since 1774, when a few of them came from England to New-York. Their principal settlement is at Nisqueunia, above Albany. They have another in New-Lebanon, another at Enfield in Connecticut, and one in Canterbury in New-Hampshire.

A still smaller sect, called SANDEMANIANS, has existed in the United States, but is now nearly extinct.

The JEWS are not numerous. They have synagogues at New-

port, New-York, Philadelphia, Charleston, and Savannah. The whole number of Jews, in all parts of the world, is estimated at 3 millions.

Government. The United States were originally British colonies. The governments established over them by the mother country were of four kinds. The first was a *charter* government, by which the powers of legislation were vested in a governor, council, and assembly, *all chosen by the people*. This secured to the governed far more freedom than either of the others. Of this kind were the governments of Connecticut and Rhode Island; and the inhabitants of those states, from the time of obtaining their charters, enjoyed the same degree of liberty, which they have enjoyed since the revolution. Of this kind also was that of Plymouth colony, and originally that of Massachusetts. The second was a *proprietary* government, in which the proprietor of the province was governor; although he generally resided in England, and administered the government by a deputy of his own appointment; the assembly only being chosen by the people. Such were the governments of Pennsylvania and Maryland; and originally those of New [redacted] and the Carolinas. The third was a *royal* government, in which governor and council were appointed by the crown, and the assembly by the people. Of this kind were those of New-Hampshire, New-York, Virginia, Georgia, New-Jersey, after 1702, and the Carolinas, after 1728. The fourth was a *mixed* government, in which the governor alone was appointed by the crown, and both the council and assembly were chosen by the people. The governor, however, had the right to negative a certain number of the council; but not to fill up vacancies thus occasioned. Of this kind was the government of Massachusetts. This variety of governments created different degrees of dependence on the crown. The charter governments had the sole power of enacting laws; but the laws might not be contrary to the laws of England. In the others, the laws must be ratified by the king.

On the fourth of July, 1776, the colonies declared themselves FREE AND INDEPENDENT, and by seven years of distressing but successful war, proved to the world the truth of their declaration. At the same time, by their delegates in congress, they published ARTICLES OF CONFEDERATION, in which they styled themselves THE UNITED STATES OF AMERICA. These were ratified by congress, July 9th, 1778.

By these articles the thirteen states entered into a firm league of friendship, and bound themselves to assist each other against every enemy. Each state however retained its own sovereignty, and every power, jurisdiction, and right, not delegated to congress. Each state was annually to appoint not less than two, nor more than seven, delegates, who were to meet every year on the first Monday in November. No person could serve as delegate more than three, in any term of six, years; nor could any delegate hold any office under the United States. Each state could recal its delegates during the year, and appoint new ones. In determining questions, each state had one vote. Each state was bound to abide by the deter-

mination of congress, on all questions submitted to it by the confederation, These articles were to be invariably observed by the several states, and the union was to be perpetual; nor was any alteration to be made in any of the articles, unless first agreed to in congress, and afterwards confirmed by the legislature of each state.

These articles, after the war had ceased to give them vigour, were found inadequate. A convention met in Philadelphia in the summer of 1787, consisting of delegates chosen by each state, to fix upon the necessary amendments. This convention proposed an entirely new form of government, which was afterwards adopted by the several states, and which, since its adoption, has been materially altered. We give it here with the latest additions.

Constitution. We, the People of the United States, in order to form a more perfect union, establish justice, ensure domestic tranquillity, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

ART. I. *Sec.* 1. All legislative powers herein granted shall be vested in a congress of the United States, which shall consist of a senate and house of representatives.

Sec. 2. The house of representatives shall be composed of members, chosen every second year by the people of the several states, and the electors in each state shall have the qualifications requisite for electors of the most numerous branch of the state legislature.

No person shall be a representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state in which he shall be chosen.

Representatives and direct taxes shall be apportioned among the several states, which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and including Indians not taxed, three fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of representatives shall not exceed one for every thirty thousand, but each state shall have at least one representative; and, until such enumeration shall be made, the state of New-Hampshire shall be entitled to choose three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New-Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North-Carolina five, South-Carolina five, and Georgia three.

When vacancies happen in the representation from any state, the executive authority thereof shall issue writs of election to fill such vacancies.

The house of representatives shall choose their speaker and other officers; and shall have the sole power of impeachment.

Sec. 3. The senate of the United States shall be composed of two senators from each state, chosen by the legislature thereof, for six years; and each senator shall have one vote.

Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one third may be chosen every second year; and if vacancies happen by resignation or otherwise, during the recess of the legislature of any state, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies.

No person shall be a senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state for which he shall be chosen.

The vice-president of the United States shall be president of the senate, but shall have no vote, unless they be equally divided.

The senate shall choose their other officers, and also a president pro-tempore, in the absence of the vice-president, or when he shall exercise the office of president of the United States.

The senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall be on oath or affirmation. When the president of the United States is tried, the chief justice shall preside: And no person shall be convicted without the concurrence of two thirds of the members present.

Judgement in cases of impeachment shall not extend further than to removal from office, and disqualification to hold or enjoy any office of honor, trust, or profit under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgement, and punishment according to law.

Sec. 4. The times, places, and manner of holding elections for senators and representatives, shall be prescribed in each state by the legislature thereof; but the congress may, at any time by law, make or alter such regulations, except as to the places of choosing senators.

The congress shall assemble at least once in every year; and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

Sec. 5. Each house shall be the judge of the elections, returns, and qualifications of its own members; and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members, in such manner and under such penalties as each house may provide.

Each house may determine the rules of its proceedings; punish its members for disorderly behaviour; and with the concurrence of two thirds, expel a member.

Each house shall keep a journal of its proceedings; and from time to time, publish the same, excepting such parts as may, in

their judgement, require secrecy: and the yeas and nays of the members of either house, on any question, shall, at the desire of one fifth of those present, be entered on the journal.

Neither house, during the session of congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses shall be sitting.

Sec. 6. The senators and representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the treasury of the United States. They shall, in all cases, except treason, felony, and breach of the peace, be privileged from arrest, during their attendance at the session of their respective houses, and in going to or returning from the same; and for any speech or debate in either house they shall not be questioned in any other place.

No senator or representative shall, during the time for which he was elected, be appointed to any civil office, under the authority of the United States, which shall have been created, or the emoluments whereof shall have been increased, during such time: and no person holding any office under the United States, shall be a member of either house, during his continuance in office.

Sec. 7. All bills, for raising a revenue, shall originate in the house of representatives; but the senate may propose or concur with amendments, as on other bills.

Every bill, which shall have passed the house of representatives and the senate, shall, before it become a law, be presented to the president of the United States. If he approve, he shall sign it: but if not, he shall return it, with his objections, to that house in which it shall have originated, who shall enter the objections at large, on their journal, and proceed to re-consider it. If, after such re-consideration, two thirds of that house shall agree to pass the bill, it shall be sent, together with the objections to the other house, by which it shall likewise be re-considered: and if approved by two thirds of that house it shall become a law. But, in all such cases, the votes of both houses shall be determined by yeas and nays: and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the President, within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law, in like manner as if he had signed it, unless the congress by their adjournment, prevent its return; in which case it shall not be a law.

Every order, resolution, or vote, to which the concurrence of the senate and house of representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and, before the same shall take effect, shall be approved by him; or, being disapproved by him, shall be re-passed by two thirds of the senate and house of representatives, according to the rules and limitations prescribed in the case of a bill.

Sec. 8. The congress shall have power,

To lay and collect taxes, duties, imposts and excises, to pay the debts, and provide for the common defence and general welfare of

the United States: but all duties, imposts and excises shall be uniform throughout the United States.

To borrow money on the credit of the United States.

To regulate commerce with foreign nations, and among the several states, and with the Indian tribes.

To establish a uniform rule of naturalization, and uniform laws on the subject of bankruptcies, throughout the United States.

To coin money; regulate the value thereof, and of foreign coin; and fix the standard of weights and measures.

To provide for the punishment of counterfeiting the securities and current coin of the United States.

To establish post-offices and post roads.

To promote the progress of science and useful arts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries.

To constitute tribunals inferior to the supreme court.

To define and punish piracies and felonies committed on the high seas, and offences against the law of nations.

To declare war; grant letters of marque and reprisal, and make rules concerning captures on land and water.

To raise and support armies. But no appropriation of money for that use shall be for a longer term than two years.

To provide and maintain a navy.

To make rules for the government and regulation of the land and naval forces.

To provide for calling forth the militia, to execute the laws of the union, suppress insurrections, and repel invasions.

To provide for organizing, arming and disciplining the militia, and for governing such part of them as may be employed in the service of the United States: reserving to the states respectively, the appointment of the officers, and the authority of training the militia according to the discipline prescribed by congress.

To exercise exclusive legislation, in all cases whatsoever, over such district (not exceeding ten miles square) as may, by cession of particular states, and the acceptance of congress, become the seat of the government of the United States; and to exercise like authority over all places, purchased by the consent of the legislature of the state in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings: and

To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers, vested by this constitution in the government of the United States, or in any department or officer thereof.

Sec. 9. The migration or importation of such persons, as any of the states now existing, shall think proper to admit, shall not be prohibited by the congress, prior to the year one thousand eight hundred and eight: but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

The privilege of the writ of habeas corpus shall not be suspended, unless when, in cases of rebellion or invasion, the public safety may require it.

No bill of attainder, or ex post facto law, shall be passed.

No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration herein before directed to be taken.

No tax or duty shall be laid on articles exported from any state. No preference shall be given, by any regulation of commerce or revenue, to the ports of one state over those of another: nor shall vessels, bound to or from one state, be obliged to enter, clear, or pay duties in another.

No money shall be drawn from the treasury, but in consequence of appropriations made by law: and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

No title of nobility shall be granted by the United States. And no person, holding any office of profit or trust under them, shall, without the consent of the congress, accept of any present, emolument, office, or title, of any kind whatever, from any king, prince, or foreign state.

Sec. 10. No state shall enter into any treaty, alliance, or confederation; grant letters of marque and reprisal; coin money; emit bills of credit; make any thing but gold and silver coin a tender in payment of debts; pass any bill of attainder, ex post facto law, or law impairing the obligation of contracts, or grant any title of nobility.

No state shall, without the consent of the congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws; and the net produce of all duties and imposts, laid by any state on imports or exports, shall be for the use of the treasury of the United States; and all such laws shall be subject to the revision and control of the congress. No state shall, without the consent of congress, lay any duty of tonnage, keep troops, or ships of war, in time of peace, enter into any agreement or compact with another state or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ART. II. *Sec.* 1. The executive power shall be vested in a president of the United States of America. He shall hold his office during the term of four years, and, together with the vice-president, chosen for the same term, be elected as follows:

Each state shall appoint, in such manner as the legislature thereof may direct, a number of electors, equal to the whole number of senators and representatives, to which the state may be entitled in the congress. But no senator or representative, or person holding an office of trust or profit under the United States, shall be appointed an elector.

The electors shall meet in their respective states, and vote by ballot for two persons, of whom one, at least, shall not be an inhabitant of the same state with themselves. And they shall make a list of all the persons voted for, and of the number of votes for each; which list they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the presi-

dent of the senate. The president of the senate shall, in the presence of the senate and house of representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes shall be the president, if such number be a majority of the whole number of electors appointed; and if there be more than one who have such majority, and have an equal number of votes, then the house of representatives shall immediately choose by ballot one of them for president: and if no person have a majority, then, from the five highest on the list, the said house shall in like manner choose the president. But in choosing the president the votes shall be taken by states, the representation from each state having one vote: a quorum for this purpose shall consist of a member or members from two thirds of the states: and a majority of all the states shall be necessary to a choice. In every case, after the choice of the president, the person having the greatest number of votes of the electors shall be the vice-president. But if there should remain two or more who have equal votes, the senate shall choose from them, by ballot, the vice-president.

The congress may determine the time of choosing the electors, and the day on which they shall give their votes; which day shall be the same throughout the United States.

No person, except a natural born citizen, or a citizen of the United States at the time of the adoption of this constitution, shall be eligible to the office of president. Neither shall any person be eligible to that office, who shall not have attained to the age of thirty-five years, and been fourteen years a resident within the United States.

In case of the removal of the president from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the vice-president; and the congress may, by law, provide for the case of removal, death, resignation, or inability, both of the president and vice-president, declaring what officer shall then act as president: and such officer shall act accordingly, until the disability be removed, or a president shall be elected.

The president shall, at stated times, receive for his services, a compensation, which shall neither be increased nor diminished, during the period for which he shall have been elected: and he shall not receive, within that period, any other emolument from the United States, or any of them.

Before he enter on the execution of his office, he shall take the following oath or affirmation:

"I do solemnly swear (or affirm) that I will faithfully execute the office of president of the United States: and will, to the best of my ability, preserve, protect, and defend the constitution of the United States."

Sec. 2. The president shall be commander in chief of the army and navy of the United States, and of the militia of the several states, when called into the actual service of the United States. He may require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the

duties of their respective offices: and he shall have power to grant reprieves and pardons for offences against the United States, except in cases of impeachment.

He shall have power, by and with the advice and consent of the senate, to make treaties, provided two thirds of the senators present concur: and he shall nominate, and by and with the advice and consent of the senate, shall appoint, ambassadors, other publick ministers and consuls, judges of the supreme court, and all other officers of the United States, whose appointments are not herein otherwise provided for, and which shall be established by law. But the congress may, by law, vest the appointment of such inferior officers, as they shall think proper, in the president alone, in the courts of law, or in the heads of departments.

The president shall have power to fill up all vacancies that may happen, during the recess of the senate, by granting commissions, which shall expire at the end of their next session.

Sec. 3. He shall, from time to time, give to the congress information of the state of the union, and recommend to their consideration such measures as he shall judge necessary and expedient. He may, on extraordinary occasions, convene both houses, or either of them, and, in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper. He shall receive ambasadors and other publick ministers. He shall take care that the laws be faithfully executed; and shall commission all the officers of the United States.

Sec. 4. The president, vice-president and all civil officers of the United States, shall be removed from office, on impeachment for, and conviction of, treason, bribery, or other high crimes and misdemeanors.

ART. III. *Sec.* 1. The judicial power of the United States shall be vested in one supreme court, and in such inferior courts as the congress may, from time to time, ordain and establish. The judges, both of the supreme and inferior courts, shall hold their offices during good behaviour; and shall, at stated times, receive for their services, a compensation, which shall not be diminished during their continuance in office.

Sec. 2. The judicial power shall extend to all cases, in law and equity, arising under this constitution, the laws of the United States, and treaties made or which shall be made, under their authority; to all cases affecting ambassadors, other publick ministers, and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more states, between a state and citizens of another state, between citizens of different states, between citizens of the same state, claiming lands under grants of different states, and between a state or the citizens thereof, and foreign states, citizens, or subjects.

In all cases, affecting ambassadors, other publick ministers, and consuls, and those in which a state shall be a party, the supreme court shall have original jurisdiction. In all the other cases before mentioned, the supreme court shall have appellate jurisdiction,

both as to law and fact, with such exceptions, and under such regulations, as the congress shall make.

The trial of all crimes, except in cases of impeachment, shall be by jury; and such trial shall be held in the state where the said crimes shall have been committed; but when not committed within any state, the trial shall be at such place or places as the congress may by law have directed.

Sec. 3. Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

The congress shall have power to declare the punishment of treason: but no attainder of treason shall work corruption of blood, or forfeiture, except during the life of the person attainted.

ART. IV. *Sec.* 1. Full faith and credit shall be given, in each state, to the public acts, records, and judicial proceedings of every other state. And the congress may, by penal laws, prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

Sec. 2. The citizens of each state shall be entitled to all privileges and immunities of citizens in the several states.

A person charged in any state with treason, felony, or other crime, who shall flee from justice, and be found in another state, shall, on demand of the executive authority of the state from which he fled, be delivered up, to be removed to the state, having jurisdiction of the crime.

No person, held to service or labour in one state, under the laws thereof, escaping into another, shall in consequence of any law or regulation therein, be discharged from such service or labour; but shall be delivered up on claim of the party to whom such service or labour may be due.

Sec. 3. New states may be admitted by the congress into this union; but no new state shall be formed or erected within the jurisdiction of any other state—nor any state be formed by the junction of two or more states, or parts of states—without the consent of the legislatures of the states concerned, as well as of the congress.

The congress shall have power to dispose of, and make all needful rules and regulations respecting, the territory or other property belonging to the United States: and nothing in this constitution shall be so construed, as to prejudice any claims of the United States, or of any particular state.

Sec. 4. The United States shall guarantee to every state in this union a republican form of government; and shall protect each of them against invasion, and on application of the legislature, or of the executive (when the legislature cannot be convened) against domestic violence.

ART. V. The congress, whenever two thirds of both houses shall deem it necessary, shall propose amendments to this constitution, or, on the application of the legislatures of two thirds of the

several states, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this constitution, when ratified by the legislatures of three fourths of the several states, or by conventions, in three fourths thereof, as the one or the other mode of ratification may be proposed by the congress: provided, that no amendment, which may be made prior to the year one thousand eight hundred and eight, shall in any manner affect the first and fourth clauses in the ninth section of the first article; and that no state, without its consent, shall be deprived of its equal suffrage in the senate.

ART. VI. All debts contracted, and engagements entered into, before the adoption of this constitution, shall be as valid against the United States under this constitution, as under the confederation.

This constitution, and the laws of the United States which shall be made in pursuance thereof, and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, any thing in the constitution or laws of any state to the contrary notwithstanding.

The senators and representatives before mentioned, and the members of the several state legislatures, and all executive and judicial officers, both of the United States and of the several states, shall be bound, by oath or affirmation to support this constitution; but no religious test shall ever be required as a qualification to any office or publick trust under the United States.

ART. VII. The ratification of the conventions of nine states shall be sufficient for the establishment of this constitution between the states so ratifying the same.

AMENDMENTS. The following *articles* in addition to, and amendment of, the constitution of the United States, having been ratified by the legislatures of nine states, are equally obligatory with the constitution itself.

I. Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

II. A well regulated militia being necessary for the security of a free state, the right of the people to keep and bear arms shall not be infringed.

III. No soldier shall, in time of peace, be quartered in any house without the consent of the owner; nor in time of war, but in a manner to be prescribed by law.

IV. The right of the people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures, shall not be violated; and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

V. No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment of a grand

jury, except in cases arising in the land or naval forces, or in the militia when in actual service, in time of war or public danger; nor shall any person be subject, for the same offence, to be twice put in jeopardy of life or limb; nor shall be compelled, in any criminal case, to be witness against himself; nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

VI. In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, (which district shall have been previously ascertained by law) and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favour; and to have the assistance of counsel for his defence.

VII. In suits at common law, where the value in controversy shall exceed 20 dollars, the right of trial by jury shall be preserved; and no fact tried by a jury, shall be otherwise re-examined in any court of the United States, than according to the rules of the common law.

VIII. Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

IX. The enumeration in the constitution of certain rights, shall not be construed to deny or disparage others retained by the people.

X. The powers not delegated to the United States by the constitution, nor prohibited by it to the states, are reserved to the states, respectively, or to the people.

XI. The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by citizens of another state, or by citizens or subjects of any foreign state.

XII. The following is in lieu of the third paragraph of the first section of the second article of the constitution.

The electors shall meet in their respective states, and vote, by ballot, for president and vice president, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots, the person voted for as president, and, in distinct ballots, the person voted for as vice-president, and they shall make distinct lists of all persons voted for as president and all persons voted for as vice-president, and of the number of votes for each, which lists they shall sign and certify, and transmit, sealed, to the seat of the government of the United States, directed to the president of the senate—the president of the senate shall, in presence of the senate and house of representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes for president, shall be the president, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list of those voted for as president, the house of representatives shall choose immediately, by ballot, the president. But in choosing the

president, the votes, shall be taken by states, the representation from each state having one vote; a quorum for this purpose shall consist of a member or members from two thirds of the states, and a majority of all the states shall be necessary to a choice. And if the house of representatives shall not choose a president whenever the right of choice shall devolve upon them, before the fourth day of March then next following, then the vice-president shall act as president, as in case of the death or other constitutional disability of the president.

The person having the greatest number of votes, as vice-president, shall be the vice-president, if such number be a majority of the whole number of electors appointed; and if no person have a majority, then, from the two highest numbers on the list, the senate shall choose the vice-president—a quorum for the purpose shall consist of two thirds of the whole number of senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of president, shall be eligible to that of vice-president of the United States.

Besides this general government, each state is an independent sovereignty, possessing a republican form of government; retaining all the powers not expressly vested in congress, and entrusted to a governor, legislature, and judiciary, chosen directly or indirectly by the people. Abstracts of the constitutions of the several states will be given in their proper places.

Courts. The courts of the United States are of three kinds, *a supreme court, circuit courts,* and *district courts.* The first is established by the constitution; the two last by laws of congress. The supreme court consists of a chief justice, and six associate judges. It is only a court of appeals, and a court of errors. The attorney general of the United States, is the public prosecutor before this court.

The circuit courts consist of a judge of the supreme court, and the district judge of the state.

The United States, for this purpose, are divided into 7 circuits, and 24 districts.

The first circuit includes the districts of New-Hampshire, Massachusetts, and Rhode-Island; the second, those of Vermont, Connecticut, and New-York; the third, those of New-Jersey and Pennsylvania; the fourth, those of Maryland and Delaware; the fifth, those of Virginia and North-Carolina; the sixth, those of South-Carolina and Georgia; the seventh, those of Ohio, Kentucky, and Tenessee. Beside these the districts of Maine, Columbia, Michigan, Indiana, Missisippi, Orleans, and Louisiana have each district judges, though they are not yet formed into circuits.

The circuit court sits twice a year in each district composing the circuit, in one of which the judge must reside. The district courts are held by the judge of the district, who has no authority out of his own district. These courts are held statedly four times a year in each district, and as much oftener as the judge directs. The public prosecutor, before the circuit and district courts, is a district attorney. A marshal is appointed, also, for each district.

with the powers of a sheriff. The jurisdiction of these courts is expressly limited by the 2d section of the 3d article of the constitution. All the objects of their jurisdiction are of a national character.

Laws. The laws, to which the citizens of the United States are subject, consist of *national* and *state* laws.

The national laws are all *written.* They consist of the constitution of the United States, public treaties, and acts of congress. The state laws are divided into *written* and *unwritten.* The written are the acts of the state legislatures. The unwritten is the *common law* of the state, where that is ascertained. In other cases, the common law of England is generally adhered to by the state courts, where the circumstances of the country do not render it inapplicable.

By an act of congress, the laws of the several states are regarded as rules of decision *in trials at common law,* in the courts of the United States. Of course the laws of the state in which the trial is held, regulate the court. As part of the laws of the states are unwritten, this act gives a common law jurisdiction, *in civil cases,* to the federal courts. In *criminal* cases no such provision exists. The *penal code* of the United States rests, therefore, upon the constitution and acts of congress.

The state courts are bound, in their decisions, by the national laws, as well as by the laws of the state.

Population. The number of inhabitants in the United States, in 1790, was 3,950,000; in 1800, 5,305,666; in 1810, 7,230,514. The increase in the first ten years was 1,355,666, and the ratio of increase 34$\frac{1}{3}$ per cent. The increase in the second ten years was, 1,924,848, and the ratio of increase 36$\frac{1}{4}$ per cent.

The inhabitants of the United States are composed of three classes: Europeans and their descendants; Africans and their descendants; and the Aborigines. These classes are ranged according to their respective numbers.

The first is made up of English, German, Dutch, French, Irish, Scotch, Swedish, Swiss, and Welsh emigrants and their descendants.

The great mass of the inhabitants are of English origin. New-England was settled entirely by Englishmen, except a few towns in the hilly country of the county of Hampshire in Massachusetts, which were settled by a colony of Irishmen; and a few Scotch and Irish settlements in New-Hampshire. With these exceptions the settled inhabitants of New-England are even now entirely of English origin. Nor are the occasional residents of a different description, except here and there a straggling foreigner, of some European nation. The English and their descendants, also, constitute a considerable majority of the inhabitants in the middle states, and a still larger majority of the white inhabitants of the southern states. Probably nine tenths of the inhabitants of European extraction are of this description. The Germans compose about one fourth part of the inhabitants of Pennsylvania. Considerable numbers of them are also found in New-York and New-Jersey. They speak their own language; and have their own clergymen, schoolmasters, and newspapers. They are almost universally agriculturists, and Pennsylvania owes to their many e-

her improvements in agriculture. They are generally uninformed. They are beginning, however, to learn a little English; but a century will probably pass before they will have shaken off the phlegm and sluggishness of their native country.

The Dutch settled the state of New-York, and are still considerably numerous there. Numbers of them are also found in New-Jersey and Pennsylvania. They are generally farmers, and would have been considered excellent ones in the year 1614. Great numbers of them, however, are found in almost every profession, and claim their full share of learning, respectability, and wealth. Those who are settled in the large towns and speak English, have shaken off most of the Dutch peculiarities. But the Dutch villagers retain, to a great degree, the customs and character of their ancestors, who migrated to America early in the 17th century.

A small colony of French Protestants settled on Staten Island and at New-Rochelle in the state of New-York. They were superior in their character to most colonists; and several of their descendants have filled some of the highest offices in the United States. A number of respectable French families have, at various times, settled in Charleston, S. Carolina. A few others of this description are found in New-Jersey, and other states. The great body of the later French emigrants to the United States, are mere adventurers. They teach dancing, music, drawing, fencing, and the French language; though of this last very few of them know more than the pronunciation. They are dealers also in toys, and sugar-plums and perfumes; but seldom engage in sober industry. Great numbers of them are probably *spies* of the French government.

The Irish emigrants live principally in Pennsylvania. Considerable numbers also are found in New-York, New-Jersey, Kentucky, and are scattered in most parts of the United States. More than half of these are Catholics from the middle and south of Ireland; emigrants from the north of Ireland, called Scotch-Irish, are of respectable character. The colonies in Massachusetts and New-Hampshire are of this description; as are, likewise, many of the Irish in the middle states.

The Scotch are generally industrious, good citizens, well informed, honest, and moral. They have settlements in New-Hampshire, New-York, New-Jersey, Pennsylvania, and North-Carolina. Numbers of them are settled in the large towns, as merchants and booksellers.

A considerable number of Swedes are found in New-Jersey, Pennsylvania, and Maryland. They are a peaceable and well informed people.

There is a settlement of Swiss in the Indiana Territory, who are engaged in the culture of grapes, and making wine.

Several small settlements of Welsh emigrants have been made in Pennsylvania and New-York. These are a very honest, industrious, sober people.

The second class of inhabitants, are Africans, brought here in slaveships, or their descendants; no less than 1,185,223, of these degraded people are still held in slavery in this land of liberty and equal rights. Upwards of 186,000 people of color are freemen.

Great numbers of those who make up these two classes, are but partially of African origin. The mulattoes in the low country of the southern states may probably, at some distant period, outnumber the genuine blacks.

The great body of the Negroes are in the southern states. Their numbers in 1790 amounted to 697,697; in 1800 to 893,605, and in 1810, as above stated, to 1,185,223. The increase in the first ten years was 195,908; and the ratio of increase 29⅓ per cent. The increase in the second ten years was 281,618.

The Aborigines constitute a third class, and are far less numerous than either of the others. A few are found in each of the New-England states, and on the east end of Long-Island. These have lost the little respectability, which numbers would give them, and are in quite a degraded state. Considerable numbers of the Iroquois still remain in the state of New-York. They have very valuable possessions of land. They are fast losing all that characterized their fathers. The Cherokees in Tenessee and the Missisippi Territory are numerous, wealthy, and more than half civilized. The same is true of the Creeks in Georgia. The Chickasaws and Choctaws in the Missisippi Territory are considerably numerous. Michigan and Indiana Territories have considerable numbers of untamed Indians of the Chipeway tribe; and the territory northwest of the Illinois and west of lake Michigan, their ancient patrimony, is at present entirely possessed by Indians. The whole number of Indians in the United States, probably, does not exceed 60,000.

Army. Standing armies are deemed inconsistent with a republican form of government. The United States have about five thousand troops, stationed at the different fortresses on the sea coast, and on the frontiers. The military establishment costs the government about 2,800,000 dollars a year. The grand defence of the United States consists in a well disciplined militia, of about 6 or 700,000 men. The number of free white males in the United States, by the census of 1810, between 16 and 45 years of age, was 1,119,357. The militia of Massachusetts with a population of 700,000 has a militia of 70,000 men. From these data may be calculated the military strength of the United States.

Navy. The navy of the United States, in the beginning of the year 1810 consisted of the following vessels.

Rank.	No.	Rate.	Guns.
Frigates	3	44	132
	3	36	108
	3	32	96
Ship	1	20	20
	1	18	18
Brigs	1	18	18
	3	16	48
	2	14	28
Schooners	2	12	24
Cutter	1	10	10
	19		502

Beside these there are 4 bomb-ketches and 170 gunboats. Each of the gunboats mounts 1 gun. The expence of the navy for the year ending Sept. 30th, 1810, was 1,674,735 dollars 50 cents. The appropriation for this department in 1811 was 1,870,274 dollars.

Revenue. The revenue of the United States arises from duties on the tonnage of vessels entered at the various custom houses, on imported goods, wares, and merchandize, and on the postage of letters. The following table exhibits the revenue from the fourth of March, 1789, to the 31st of December, 1809.

Years.	Customs. Dolls. Cts.	Pub. Lands.	Loans. Dolls. Cts.	Miscellaneous. Dolls. Cts.	Total. Dolls. Cts.
*1791	4,399,472,99		361,391,34	10,478,10	4,771,342,46
1792	3,443,070,85		5,102,498,45	216,889,46	8,772,458,76
1793	4,255,306,56		1,797,272,01	397,616,58	6,450,195,15
1794	4,801,065,28		4,007,950.78	630,839,59	9,439,855,65
1795	5,588,461,26		3,396,424,00	530,873,33	9,515,758,59
1796	6,567,987,94	4,836,15	320,000,00	1,847,505,58	8,740,929,65
1797	7,549,649,65	83,540,60	70,000,00	1,055,590,74	8,758,780,99
1798	7,106,061,98	11,963,11	200,000,00	861,145,76	8,179,170,80
1799	6,610,449,31		5,000,000,00	936,364,00	12,546,813,31
1800	9,080,932,78	443,75	1,565,229,24	1,767,372,62	12,413,978,34
1801	10,750,778,93	167,726,06		2,026,950,96	12,945,455,95
1802	12,438,235,74	188,628,02		2,422,930,19	14,995,793,95
1803	10,479,417,61	165,675,69		419,004,33	11,064,097,63
1804	11,098,565,33	487,526,79		240,215,26	11,826,307,38
1805	12,936'487,04	540,193,80		84,012,36	13,560,693,20
1806	14,667,698,17	765,245,73		126,987,17	15,559,931,07
1807	15,845,521,61	466,163,27		141,154,56	16,452,839,44
1808	16,363,550,58	647,939,06		49,172,29	17,060,681,93
1809	7,296,020,58	442,252,33		35,200,21	7,773,473,12
Total	171,278,734,09	3,972,134,34	21,820,765,82	13,756,303,09	210,827,937,34

The expenditures in the first 12 years, from March 4, 1789, to March 4, 1801, were 84,743,688,29; and, in the last 9 years, 121,239,253,67. The receipts into the treasury of the United States during the year ending Sept. 30th, 1811, exceeded $13,500,000† The amount of the revenue in ordinary years may be estimated at 14,000,000 of dollars.

Public Debt. The following table contains a statement of the existing debt, on the first day of each year, from 1791, to 1810, inclusive, together with the payment on the principal, the amount of debt contracted, and the increase or decrease during the year.

* The sums standing against this year are the receipts from March 4, 1789 to December 31, 1791.

† President's message, Nov. 1811

Year.	Amount of debt.	Payment on the principal.	Debt contracted.	Increase or decrease.
1791	75,463,467,52	3,324,842,86	5,089,291,00	+1,764,448,14
1792	77,227,924,66	2,056,208,86	5,180,918,24	+4,124,709,38
1793	80,352,634,04	3,189,932,63	1,264,703,36	—1,925,229,77
1794	78,427,404,77	2,420,520,74	4,740,703,36	+2,320,182,62
1795	80,747,587,39	2,949,415,32	5,964,000,00	+3,014,584,68
1796	83,762,172,07	2,097,692,74	400,000,00	—1,697,692,74
1797	82,064,479,33	2,835,950,21		—2,835,950,21
1798	79,228,529,12	1,027,324,42	207,465,07	— 819,859,35
1799	78,408,669,77	1,144,075,42	5,611,700,00	+4,567,624,58
1800	82,976,294,35	1,419,943,55	1,481,700,00	+ 61,756,45
1801	83,038,050,80	2,325,418,55		—2,325,418,55
1802	80,712,632,25	3,657,945,95		—3,657,945,95
1803	77,054,686,30	5,627,565,42	15,000,000,00	+9,372,434,58
1804	86,427,120,88	4,114,970,38		—4,114,970,38
1805	82,312,150,50	6 588,879,84		—6,588,869,84
1806	75,723,270,66	6,504,872,02		—6,504,872,02
1807	69,218,398,64	4,022,080,67		—4,022,080,67
1808	65,196,317,97	8,170,125,88		—8,173,125,88
1809	57,023,192,09	3,850,889,77		—3,850,889,77
1810	53,172,302,32	5,163,376,00	2,750,000,00	—2,413,376,00
		72,495,022,23	47,790,481,03	

Hence it appears, that the original debt, in 1791, was $75,463,467,52; and that the debt contracted since amounts to 47,790,481,03; making a total of 123,253,948,55; that of this sum there was paid off before Jan. 1st, 1811, 72,495,022,23, leaving, at that time, an existing debt of 53,172,302,32; which is less than the original debt, by 22,291,165,20.

National Funds. These consist of stock, custom house bonds, lots in the city of Washington, and public lands. In 1810, they were estimated as follows,

Stock drawing interest - - - - *
Custom house bonds - - - - - 9,600,000,00
Lots in the city of Washington -
Acres of land limited by law at not less than 2 dollars per acre - - -

The total valuation of the whole United States in that year by Blodget was 2,519,009,090 dollars. The circulating medium is calculated at from 15,000,000 dollars to 20,000,000 in specie.

Mint. The mint was established in 1791. The purity of the silver coin is the same with that of Spain; that of the gold coin with that of the strictest European nations. The amount of gold, silver, and copper, coined in the year 1804, was, gold $258,642, silver 100,340, copper 12,844,94, total 371,826,94; in 1810, gold 476,555, silver 638,773,50, copper 16,140,00, total 1,131,468,50. The gold coins are eagles, half eagles, quarter eagles and dollars. The silver are dollars, half dollars, quarter dollars, dimes, and half

* The documents necessary to fill these blanks could not be commanded by the author in season.—The information, if practicable, will be supplied in an appendix.

dimes. The copper are cents and half cents. The denominations increase and decrease in a tenfold proportion. In ordinary computation, the only denominations used are dollars, cents, and mills. These last are merely nominal.

Post Office. The amount of postage from Jan. 1st, 1790, to Oct. 1st, 1809, was 5,305,093 dollars ; and the expenses of the establishment 4,549,601 dollars 55 cents. The number of post offices in the year 1791 was 75. The following table will exhibit the number of post offices, the length of post roads, and the weekly and yearly transportation of the mail in various years since 1793.

Year.	No. post offices.	Length of roads. miles.	Weekly transportation. miles.	Yearly transportation. miles.
1793	209	5,642	16,229	843,968
1797	558	16,180	34,610	1,799,720
1801	1,025	22,309	58,870	3,057,964
1803	1,258	25,315	67,400	3,504,800
1807	1,848	33,755	85,528	4,499,456
1809	2,012	34,035	95,433	4,962,516
1811	2,403	37,035	*107,551	5,592,652

Since the number of post offices has been so much increased, and the transportation of the mail so widely extended, this branch of the revenue has very much diminished. The amount of postage, in 1809, did not equal the expense of the establishment.

Banks. The bank of the United States, which was incorporated Feb. 25th, 1791, expired March 4th, 1811, congress refusing to renew the charter. Branches of this bank had been established in Boston, New-York, Baltimore, Washington, Norfolk, Charleston, and Savannah. The capital was 10 millions of dollars. Before this event, the whole number of banks was 95, and the amount of banking capital was estimated at 55 millions of dollars.†

Manners and Customs. The great body of the inhabitants of the United States are of English origin. Their character and manners, therefore, are formed on the English plan, varying from it however, and from each other, in consequence of the diversities in government, state of society, wealth, climate, and soil.

The governments of the several states, and of the union, are elective and popular. Every officer and magistrate is appointed, directly or indirectly, by the people. They pass every law, propose every measure, form every treaty, and dispose of all public property by themselves, or by those whom they elect to office. The effect of this state of things on public men has been, on the one hand, to check the pride of place and the insolence of office; and, on the other, to persuade many of them to descend to calumny, flattery, trimming, and falsehood. Its effect on the community at large has been to inspire, on the one hand, a high sense of personal independence, and a jealous care of national freedom : and, on the other, to destroy the necessary distinctions in society, and put all men on

* Of these 46,380 were in stages, and 61,171 in sulkies and on horse back.
† Blodget.

a level; to give importance to mere numbers, and take it away from intelligence and worth; to divide the community into parties, and in a great measure to break up between them the common civilities of life; to give a degree of coarseness to public manners, and to lower very much the estimation of those, which are refined; to give newspapers and the most profligate of their editors, a prevailing influence over the public sentiment, and thus to deluge the community with calumnies and falsehood.

In New-England property is more equally distributed than in any other civilized country. Religion, here also, except in Rhode Island, is, and always has been, supported by law. At present not far from 2,000 clergymen, generally well informed and orthodox, and all chosen by the people themselves, are weekly and daily employed in enlightening and reforming their congregations. Schools are established within every little distance, and a grown person, a native of New-England, can scarcely be found, who has not some acquaintance with reading, writing, and arithmetic. The inhabitants universally live in villages or towns of a moderate size, and have no overgrown capital, in which to learn profligacy of manners. The great body of them are farmers, and not planters; they labour themselves, and not by their slaves. These circumstances have given New-England very much the manners and morals of Scotland. In the middle states, religion is not supported by law, and many places are destitute of clergymen. Schools are not numerous, many of them are badly directed, and considerable numbers of the inhabitants are unable to read or write. Property is less equally distributed; and the people are more divided, as in Europe, into rich and poor. Extensive tracts have been lately settled, and still experience all the disadvantages attendant on new settlements. The original settlers came over at different times, and for different purposes; belonged to different nations, and spoke many different languages. They were not, generally, enlightened; had no oneness of interests, or views; pursued no *system* of institutions; and formed no settled habits. The English, Germans, Dutch, French, and Irish, still retain their national languages, prejudices, virtues, and vices. They have settled generally by themselves, have little intercourse with each other, and have scarcely any inclination or opportunity to form a common character. There are two large cities in this division of the country, and the smaller towns are too prone to ape city manners, and city life. The slaves in this division are considerably more numerous than in New-England; but their number is not large enough, if we except Maryland, to have any material influence on the character of the people. The body of the inhabitants live on scattered farms, or plantations; but they cultivate their own lands. The elections here, are extremely corrupt; individuals acquire very undue influence; and profligacy of life has long since ceased to be a disqualification for office. Individuals and families are found, however, scattered in very considerable numbers, over all this division, distinguished for their intelligence, their refinement, and their worth, men who would be among the best citizens of any country. The state of New-York is beginning

to assume the New-England character. In the southern states, also, religion is not supported by law, and the great body of the inhabitants enjoy no regular stated preaching. They live chiefly on plantations, and are poorly provided with schools. Great numbers of the white inhabitants cannot read. Labour is generally considered as dishonorable, and is done on the coast, only by slaves, and by the poor. The division of the inhabitants into rich and poor is as proper here as in many countries of Europe. This distribution has fostered among the planters, a sort of baronial pride, hardly known in New-England, and has led to a luxurious mode of living. Slavery has increased all these effects, and has tended also to corrupt the public morals. The number of mulattoes is already very great; and there is more than a possibility that, in the lapse of a century, the whites and the blacks, in the lower country, will constitute a common mass. The slaves, with few exceptions, are now treated with humanity. Duelling, unknown till lately in New-England, is here common. Gouging is more rare than formerly. Horseracing and cockfighting, particularly the former, are favorite amusements. Many of the inhabitants, however, far from possessing this character, or practising these vices, hold them in abhorrence. The ladies, also, almost universally deserve the esteem of all those, who know how to value delicacy, and amiable manners.

Languages. The English language is almost universally spoken. All records are kept in it throughout the country and all public business transacted. The German, Dutch, Swedish, Irish, Welsh and French are spoken more or less, and in all of them public worship is in some place or other regularly performed.

The German is spoken very extensively in Pennsylvania, and in parts of New-York.

Dutch is spoken by numbers in New-York and New-Jersey, and by a few in Pennsylvania.

Swedish is spoken by a few in New-Jersey, Pennsylvania, and Delaware.

The Irish in and near Philadelphia, in considerable numbers, retain their native language.

A few Welsh settlements are scattered over the middle states.

French and Spanish, the former very generally, are taught in the large towns, and spoken, as their vernacular dialect, by many occasional residents, and by a few of the settled inhabitants.

The English of the middle states, owing to the influx of foreigners, is generally less pure than that of the northern or southern.

The pronunciation of English gentlemen, where it has not been corrupted by the stage, differs imperceptibly from the pronunciation of New-England.

Literature. Few men, in America, have originally sufficient property, to justify them in devoting their lives to the pursuits of literature. Our colleges have no well endowed fellowships to supply this deficiency. A government merely popular can never extend to learning, any thing like English patronage. And Mæcenases are indeed but rarely found in a country, where wealth or office is the general object of pursuit. The consequence

is that men of learning, *of the English stamp*, are seldom if ever found in the United States. The regular clergy, however, are not, *as a body*, behind the English clergy in theological or general learning. Well informed men, and men of liberal education are numerous along the sea-coast, and in most of the large towns in the interior. In no country on the globe, except Scotland, is common learning so universally diffused as in New-England. In the best seminaries the Greek, Latin, and Hebrew languages, Philology, Geography, Mathematics, Natural Philosophy, Chemistry, Logic, Rhetoric, and Theology, are taught by recitations and lectures to an extent not surpassed, in the general course of instruction, at Oxford and Cambridge.

The Arts. The state of the Arts corresponds with that of the Literature of the United States. In the mechanic arts, and in printing, engraving, and architecture among the fine arts, there is as much native genius in the United States, as in any part of the world; and this genius, for the last few years, has been cultivated to a very considerable extent, and in some instances has rivalled the most splendid and useful exhibitions of it in the old world.

Universities. HARVARD COLLEGE, now the university in Cambridge, Massachusetts, was founded in 1638. This is the oldest and the best endowed of the American seminaries. YALE COLLEGE, in New-Haven, Connecticut, was founded in 1700. The number of students in this is at present greater, than in any of the other seminaries. PRINCETON COLLEGE, in Princeton, New-Jersey, was founded in 1738. These three, are considered at the head of the American colleges. A more particular account of these and the other more recent and flourishing seminaries in the United States, will be given in our description of the particular states.

Cities. The principal cities and towns of the union, according to their population, are New-York, Philadelphia, Baltimore, Boston, Charleston, S. C. Salem, Providence, Richmond, Albany, Washington, Newark, Lancaster, Portland, Newport, Portsmouth, Newburyport, and Savannah.

Roads. The United States, with regard to the facility of making roads, and keeping them in repair, may be considered under three divisions. The country north of 41°, including New-England and the state of New-York, is the first, and the most advantageously situated. In almost every part of this district the materials for roads are at hand, and can be procured at a small expense. In New-England, also, the soil is generally a hard loam, on which the heaviest wheels make little or no impression. In New-York it is generally clay. In this respect New-York is unfortunate. But the whole of this district is usually covered with snow in the winter. The snow is serviceable in various ways: it preserves roads from heaving in consequence of frost; it hinders them from being frozen deep, and thus enables them to dry early in the spring; it furnishes an easy way of transportation for heavy articles in sleighs, and thus, at once saves the roads from being injured by wheels during the winter, and prevents the necessity of using them in the opening of the spring. Between 36° and 41° N. the ground, not being covered with snow, is constantly freezing and thawing during

the winter, and the roads heave with every frost. All heavy transportation is effected on wheels, and the roads, during the winter and spring, are rutted to such a degree, as to be made almost impassable. The soil, throughout this territory, is, to a great extent, clay; which renders the effect of wheels, in the spring, still more unfortunate. The materials for making roads are here generally at hand. Below lat. 36° the roads are never materially injured by the frost, though in the low country, they are much injured by rains, and the ground is cut up by wheels in the spring, so as to render them, in some places almost impassable. Over this whole extent, from the coast to 100 or 200 miles back, the country is a dead level, and generally a sandy plain with a thin covering of soil. The roads in many parts, are a deep, heavy sand, and no stones or gravel can be procured within any suitable distance, to make them better. In the back country good roads may generally be made at no very great expence.

The great post road of the United States is that leading from Maine to Georgia, in the general direction of the coast, and passing through the principal sea-ports. Its length is about 1600 miles. This road is generally good, as far as Philadelphia; thence southward it is in great part indifferent. It has been proposed to turnpike this road through its whole extent. The estimated expence is 4,800,000 dollars. This estimate is doubtless far below the truth. Dr. Ramsay, in a recent ingenious publication, has projected a *road of health*, as he styles it, to pass from Georgia to Maine, along the eastern foot of the Allegany mountains, and highlands of New-England. Roads lie on both sides of Connecticut river through its whole length, a distance of 400 miles. They are generally good. A road has been begun, which is to run 150 miles from Quebec, and to meet them at the 45th degree of latitude.

A connected line of turnpike roads has several years been completed between Boston and the Genessee river, through Northampton, Albany and Utica. It will soon be extended from the Genessee to Niagara river.

A turnpike of some years standing has been formed from Philadelphia, through Lancaster, to Pittsburgh. This is the most frequented road from the Atlantic to the Ohio. From Pittsburgh, roads branch out, in various directions, through the western country.

In New-England good roads are found every where, and the number of turnpikes is very great. The states of New-York and Pennsylvania have already done, and are still doing, much in this way. In the western country the settlements are too recent to have admitted of extensive improvements. In the southern states the subject has been almost wholly neglected. The state of Maryland, however, has already begun several roads of considerable extent.

Various public roads have also been proposed, which in a few years will probably be completed by government: one from Philadelphia to the confluence of the Conemaugh and Loyalhammon branches of the Allegany, a distance of 220 miles; a second from WASHINGTON to the confluence of the Monongahela and Cheat

rivers, a distance of 150 miles, of which the last 72 are already finished; a third from Richmond in Virginia to Morris's, below all the falls on the great Kanhawa, 210 miles; a fourth from Charleston to the Tennessee, more than 300 miles. These four roads will all cross the Allegany mountains, and their expense is estimated at 2,800,000 dollars.

Three other roads will probably command immediate attention: one from Detroit to the Tuscarora branch of the Muskingum; a second from Cincinnati, by Vincennes, to St. Louis on the Missouri; a third from Nashville, in Tenessee, or Athens in Georgia, to Natches. The whole distance of these three roads is about 1000 miles, and it is thought that they may be completed for 200,000 dollars.

Inland Navigation. The great inland navigation, furnished by the northern boundary of the United States, has already been described. The chief interruptions of this navigation, between the bottom of lake Superior and the gulf of St. Lawrence, are the falls of St. Mary's, those of Niagara, and several in the St. Lawrence, between lake Ontario and Montreal. A canal, on the British side, has already been completed around the first. The expense of a canal 10 miles in length around the falls of Niagara, large enough to receive the vessels of the lakes, is estimated at 1,000,000 dollars. The elevation of lake Erie above lake Ontario is estimated at 450 feet, and that of lake Ontario above the river at Montreal 200 feet.

An inspection of the map of the United States will shew, that, if four interruptions were removed, they would possess *a tide-water inland navigation* from Massachusetts to the St. Mary's. These interruptions are the tract between Boston harbor and Taunton; that between Brunswick, on the Raritan, and Trenton, on the Delaware; that between Christiana Creek and Elk river; and that between Elizabeth river, in Virginia, and the Pasquotank, in North Carolina. The whole distance across all these tracts is 98 miles. Were four canals completed in these places, vessels might pass from Boston harbor up the canal to Taunton river, down that river and Narragansett bay, and up the Sound to New-York; across York bay, up the Raritan, and the canal to Trenton; down the Delaware, along the canal, and down the Chesapeake, to Norfolk; up Elizabeth river, and along the canal to Pasquotank; and thence between the main land and a chain of islands to the southern boundary of the country. The length of the first canal would be 26 miles, at an estimated expence of 1,250,000 dollars; that of the second 28 miles, at an expence of 800,000 dollars; that of the third 22 miles, at an expence of 750,000 dollars; and that of the fourth 22 miles, at an expence of 250,000 dollars: making a total of 3,050,000 dollars. It should be observed, however, that 200,000 dollars have been laid out on the third, and that the fourth is already completed, though not to the necessary width. The expence of these canals is estimated on the supposition that they are to be adapted to vessels drawing 8 feet water.

There is no inland navigation on the southern frontier. The navigation of the Missisippi and Missouri, on the west, have already been described.

Four of the rivers of the Atlantic rise near the waters of the St. Lawrence. The Kennebec heads near the Chaudiere; and the Connecticut near the St. Francis. There is no probability that these rivers will be connected by canals.

The Hudson, which is little more than a long narrow bay, likewise approaches the waters of the St. Lawrence. Fort Edward, 50 miles above Albany, is only 18 miles from Skeensborough at the head of lake Champlain. A canal connecting these two places would cost, it is supposed, 200,000 dollars. Another canal is necessary to enable boats to pass the falls in the Hudson near Waterford, the expence of which is estimated at 275,000 dollars. This canal would divert from Canada the trade of half the state of Vermont and of the northern part of New-York. The Mohawk, the western branch of the Hudson, is boatable exclusive of its falls, from Waterford to Rome, 125 miles. Wood Creek, which passing through Oneida lake, joins Seneca river, and with it forming Oswego river, enters lake Ontario at Oswego, is only one mile and a quarter from the Mohawk at Rome. They are already connected by a canal. The distance of the canal from the mouth of the Oswego is 60 miles. In this distance there are falls and rapids. The whole expence of canals for boat navigation from Waterford to Oswego, is estimated at 2,200,000 dollars. Two canals have already been made around the falls in the Mohawk, and one connecting it with Wood creek. The Tyoga branch of the Susquehannah passes near the Genessee river. The Susquehannah is not very navigable, and the Genessee has considerable falls.

A canal has likewise been proposed from lake Erie to the Hudson. The distance is about 300 miles. The waters of lake Erie are much higher than those of the Hudson, and the canal is to descend constantly and regularly as it proceeds eastward. It is proposed that it should pass over Genessee river in an aqueduct, 26 feet high; the mouth of Seneca lake, in one 183 feet high and that of Cayuga lake in one 130 feet high. The state of New-York is now engaged in attempting this great national work, at a calculated expence of 5 millions of dollars. The object of it is to turn the trade of the western country from Montreal, to the city of New-York.

Five of the Atlantic rivers approach near the waters of the Mississippi. Several of the western branches of the Susquehannah pass near the Allegany, a branch of the Ohio. 1st. The Susquehannah falls at least 140 feet between its mouth and Columbia, a distance of 40 miles. A large sum of money will be necessary to make it boatable, the whole length. Several canals however have been formed round its falls and rapids. 2d. The Potowmac rises at no great distance from the Monongahela. They cannot however be connected, except by a road. Five canals, around different falls in the Potowmac, have rendered it boatable above the Shenandoah; and one has made that river boatable nearly 200 miles. The money already expended on these works amounts to 445,000 dollars. 3d. James river has the Allegany range between it and the great Kanhawa. They can never be connected but by roads. A com-

pany incorporated by the state of Virginia is bound to render the James so far navigable, as that there may never be less than 12 inches of water over any of the shoals or rapids from the upper end of the great falls to Pattonborough, a distance of 220 miles. The river has been rendered boatable by the same company round the great fall to Richmond, the head of ship navigation. The capital expended is 244,000 dollars. 4th. The Roanoke also can be connected only by roads with the great Kanhawa. A canal of 38 miles is projected from the Roanoke, above the lower falls, to the tide water of Chowan river, at an expence of 550,000 dollars. This canal would divert the trade of North-Carolina from Petersburg in Virginia. 5th. The Santee heads near the Holston, an arm of the Tennessee. They also can be connected only by roads. The Santee is occasionally boatable 300 miles. A canal of 22 miles connects the Santee with Cooper river, which falls into Charleston harbor. The whole expence has been 650,000 dollars.

From Pittsburgh to the mouth of the Ohio is 1188 miles. Vessels of 350 tons are built at Pittsburgh, and in the spring vessels of almost any size can go the whole distance though with considerable difficulty. At other seasons of the year they are unable to pass the rapids at Louisville, in Kentucky, which are the only obstruction in the river. The expence of a canal, two miles in length round these rapids, fitted for receiving large vessels, is estimated at 300,000 dollars.

The Tennessee, a branch of the Kentucky, is navigable 250 miles, to the Muscle Shoals. These are 20 miles long, and are navigable only in the spring. Above them it is navigable 250 miles farther.

The Middlesex canal, which connects Merrimac river with Boston, and other canals opening communications of less consequence, will be described in their proper places.*

Manufactures and Commerce. Our account of American manufactures will be taken from the report of the secretary of the treasury, of April, 1810. Unless otherwise stated, the importations and exportations are taken on the average of 1806 and 1807.

The manufactures of *wood* are household furniture, carriages of every kind, and shipbuilding. Furniture and carriages are annually exported to the amount of 170,000 dollars. More than 110,000 tons of shipping were annually built between 1801 and 1807, which were worth upwards of 6,000,000 of dollars. Two thirds of these were registered for the foreign trade, and one third licenced for the coasting trade and fisheries. The whole annual value of the manufactures in wood, is 20 millions of dollars. Here also should be mentioned pot and pearl ashes, of which 7400 tons are annually exported.

The manufactures of *leather* are principally boots, shoes, harness, and saddles. There are annually imported 3250 pair of boots, and 59,000 pair of shoes; and 8500 pair of boots, and 127,000 pair

* The information contained in the above account of the roads and canals is chiefly obtained from the report of the Secretary of the Treasury bearing date April 4th, 1808.

of shoes are exported. About one third of the hides are imported from Spanish America. The annual value of leathern manufactures is estimated at 20 millions of dollars.

Soap and *tallow candles* are manufactured principally in families. Of soap 470,000 lbs. and of tallow candles 158,000 lbs. are imported, and 2,220,000 lbs. of soap, and 1,775,000 lbs. of tallow candles are exported. The annual value of both these manufactures is 8 millions of dollars. *Spermaceti* candles are annually exported to the amount of 230,000 lbs. and *spermaceti* oil to the amount of 44,000 gallons. The annual value of manufactures in both articles, is 300,000 dollars.

The annual importation of refined sugar, from 1803 to 1807, was 47,000 lbs. and the exportation 150,000 lbs. The whole quantity manufactured in 1810 was estimated at 5 million lbs. worth one million dollars. The capital employed is 3,000,000 dollars. Besides the above articles *flaxseed oil*, *coarse earthen ware*, *snuff*, *chocolate*, *hairpowder*, and *mustard* are manufactured, in quantities more than sufficient to supply the home consumption, the exportation exceeding the importation.

Cotton, *wool*, and *flax* are manufactured extensively, both in establishments and in families.

At the close of 1810, there were in operation 87 mills for manufacturing *cotton*, working 80,000 spindles, attended by 500 men and 3500 women and children; employing a capital of 4,800,000 dollars; consuming 3,600,000 lbs. of cotton, worth 720,000 dollars; and yielding 2,880,000 lbs. of yarn, worth 3,240,000 dollars. The cotton cloths made are bed-ticking, stripes and checks, ginghams, cloth for shirts and sheeting, counterpanes, webbing and coachlaces, diapers, jeans, vesting, cotton kerseymeres, fustians, cords, and velvets. The manufacture of cotton in families is very considerable.

Wool is manufactured principally in families. The cloth is more durable, but less fine and handsome, than that imported. The articles manufactured are cloths, hosiery, and blankets. The want of wool has been the principal obstacle to the extension of this manufacture. That will soon be removed. In consequence of the introduction of large numbers of Merino sheep, the quality of the American wool is fast improving, and the number of sheep rapidly increasing.

Flax is manufactured to a considerable extent in families and in establishments.

About two thirds of the clothing, house and table linen, of the inhabitants of the United States, who do not live in cities, is probably the product of family manufactures; and the annual value of the cotton, woollen, and flax manufactures, domestic and public, exceeds 40 millions of dollars.

The *hand-cards* manufactured in 1809, were 240,000 pair, and the capital employed 200,000 dollars. In the same year 20,000 square feet of *cards for carding machines* were manufactured. The value of both kinds was 200,000 dollars. The wire for them is all imported. It amounts annually to 25 tons, worth 40,000 dollars.

Both articles are manufactured in sufficient quantities to supply the demand.

Hats are annually imported to the value of 350,000 dollars; and exported to the value of 100,000 dollars. The value of all the hats annually made is about 10 millions of dollars.

Paper is still imported in small quantities. *Printing* is carried on to an extent commensurate with the demand; as is also the manufacture of *printing types*, by a large establishment at Philadelphia, and another at Baltimore. The manufactures of hanging paper and playing cards are extensive.

Sufficient *hemp* will be raised in a short time to supply the market. The manufactures of ropes, cables, cordage, duck and cotton bagging, are nearly adequate to the demand.

The quantity of *spiritous liquors* manufactured is 15 millions of gallons, and of that imported 9,750,000 gallons, yielding a revenue of 2,865,000 dollars. The quantity of malt liquors imported, is 185,000 gallons, and of malt liquors and *cider* exported, 187,000 gallons. The value of spiritous and malt liquors manufactured is 10 millions of dollars.

Iron abounds in the United States. The quantity of *bar* iron annually consumed is estimated at 50,000 tons, of which 40,000 are manufactured here, and 10,000 imported. *Sheet*, *slit*, and *hoop* iron are imported to the amount of 565 tons, and manufactured to the amount of 7000 tons. *Cut nails* are manufactured to the value of 1,200,000 dollars; and 280 tons are exported. But 1500 tons of wrought nails are imported. A considerable quantity of *blistered*, and some *refined steel* are made here; but 11,000 cwt. are annually imported. Besides these, the principal articles manufactured out of iron, consist of agricultural implements, the usual work of blacksmiths, anchors, shovels, spades, axes, scythes, and various other edge tools, saws, bits, stirrups, and a great variety of the coarse articles of ironmongery; but cutlery, and all the finer species of hardware and steelwork, are imported from Great Britain. Balls, shells, and caliber, are cast in several places; and 39,000 stands of arms are annually manufactured. The whole value of the articles made of iron is estimated at from 12 to 15 millions of dollars.

Copper and *brass* are manufactured into stills and other vessels; and, in small quantities, into buttons, and various brass wares. The zinc is chiefly, and the copper wholly, imported.

Lead is made into shot and colors of lead. Of the first 600 tons are manufactured yearly; and of the last, in Philadelphia alone, 560 tons. Red and white lead are imported to the amount of 1150 tons, and lead itself, and other manufactures, to the amount of 1225 tons.

Connecticut gluts the market with *tin ware*. The sheets are all imported.

Plated ware is made in Philadelphia to the value of 100,000 dollars. It is made also in Boston, New-York, Baltimore, and Charleston.

Only 200,000 lbs. of *gunpowder* are imported, and 100,000 lbs.

exported. The manufacture may at any moment be made adequate to the consumption.

Coarse *earthern ware* is made in sufficient quantities. Four manufactures of a finer kind have been lately established. Of *window glass* 27,000 boxes are manufactured, and the same quantity imported. Glass bottles, decanters, and other wares, are made to a considerable extent.

Oil of vitriol is manufactured in Philadelphia to the amount of 200,000 lbs. The value of the exports of chemical preparations exceeds 30,000 dollars.

The quantity of *salt*, manufactured in the interior, exceeds 730,000 bushels. Upwards of 3 millions of bushels are imported. The manufacture on the New-England coast has been suspended; but an extensive establishment has lately been begun in North-Carolina.

Straw bonnets and hats are manufactured, in a small district in Rhode Island and Massachusetts, to the amount of 250,000 dollars.

Several attempts have been made to print calicoes; but the expense has been found to exceed the profit.

Thus the annual value of all the articles now manufactured in the United States considerably exceeds 120 millions of dollars. This value is rapidly increasing.

The following summary includes those manufactures only whose value has been ascertained with considerable accuracy.

Manufactures of wood	$ 20,000,000
Leather	20,000,000
Soap, and tallow candles	8,000,000
Spermaceti candles and oil	300,000
Refined sugar	1,000,000
Cotton, wool, and flax	40,000,000
Cards	200,000
Hats	10,000,000
Spiritous and malt liquors	10,000,000
Iron	13,500,000
	$ 123,000,000

The value of manufactures exported in the year ending Sept. 30th, 1810 was 2,174,000 dollars.

Commerce. The trade of the United States is divided into foreign and domestic.

The great articles of exportation are cotton, flour, wheat, tobacco, beef, pork, lumber, naval stores, fish, rice, Indian corn, pot and pearl ashes, shoes, candles, cut nails, ardent spirits, and refined sugars.

In the year ending Sept. 30th, 1810, the articles of domestic growth exported were as follows:

Produce of the sea	$ 1,481,000
——— the forest	4,978,000
——— agriculture	33,502,000
Manufactures	2,174,000
Uncertain	231,000
	$ 42,366,000

The destination of all the exports was as follows:

1. *To Europe and the Mediterranean.*

Northern powers and Germany	$ 22,010,000
France and Holland	120,000
Great Britain	12,520,000
Spain and Portugal, Madeira, Azores and Canaries	11,050,000
Italy, Trieste, Levant, and Barbary	2,200,000
	$ 47,900,000

2. *To all other countries.*

Florida (principally Amelia island)	$ 2,500,000
British North-American colonies	1,470,000
Spanish America and Brazil	8,520,000
Other West-Indies	4,990,000
East of Cape of Good Hope	1,300,000
	$ 18,860,000

Amount of the exports, imports and tonnage of the United States.

Years.	Exports. Domestic Produce. Dolls.	Exports. Foreign Produce. Dolls.	Total. Dolls.	Imports. Dolls.	Tonnage. Tons.
1790	14,200,900	1,799,100	16,000,000		486,890
1791	14,600,000	3,799,202	18,399,202		502,698
1792	15,060,500	5,945,068	21,005,568		567,608
1793	15,420,900	10,590,888	26,011,788		627,570
1794	16,200,100	16,843,625	33,043,725		628,617
1795	18,064,050	29,791,506	47,855,556		747,964
1796	20,024,021	47,040,076	67,064,097		831,900
1797	24,052,671	27,242,039	51,294,710		876,912
1798	27,991,413	33,335,998	61,327,411		868,329
1799	33,142,187	45,523,335	78,665,522		920,000
1800	31,840,903	39,130,877	70,971,780		
1801	46,377,792	46,642,723	93,020,515		
1802	36,182,173	35,774,971	71,957,144		
1803	42,205,961	13,594,072	55,800,033		917,000
1804					
1805					
1806	*				
1807					
1808					
1809					
1810	42,366,675	24,391,295	66,757,970		†1,350,281

* For matter to fill these blanks, see appendix.

† Of this number 910,059 were tons of vessels in the foreign trade; 405,162 of coasters; and 35,060 of fishing vessels. 3204 tons of the foreign trade belonged to the whale fishery.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL AND AGRICULTURE. BAYS. SOUNDS. CAPES. RIVERS. LAKES. MOUNTAINS. FORESTS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITIES.

Face of the Country. THE United States, considered as a country, may with more propriety be characterized as *uneven*, than as *level* or *hilly*. In so extensive a tract, however, no general language can adequately describe the real state of facts. This can only be learned from a more minute description. New England is generally hilly; Vermont is mountainous; Maine and the eastern coast of New Hampshire and Massachusetts are only uneven. The middle states are principally uneven, except a broad tract running from N. W. to S. E. through the centre of this division, which is mountainous. In the southern states a broad belt of land from 100 to 250 miles wide, extending the whole length of the coast, is a uniform dead level. Back of this the land becomes uneven, and hilly, and finally rises into the mountains, which separate the waters of the Atlantic from those of the Ohio and Missisippi. Part of Kentucky and Tenessee are mountainous; while Georgia and the Missisippi territory are level.

Soil and Agriculture. About thirteen sixteenths of the surface of the country, or 520,000,000 acres, is covered with a strong, fertile soil, fitted, with a moderate degree of cultivation, abundantly to repay the labors of the husbandman. Of the remaining three sixteenths, about 51,000,000 acres are covered with water; about 40,000,000 consist of a mountainous country; which is almost universally forested, and which, from the nature of its surface, rather than of its soil, is unfit for the purposes of cultivation; and about 29,000,000 acres are either sandy, or covered with so thin and poor a soil, as to offer slight encouragement, except to the most perfect agriculture. The acres of water are, according to Mr. Hutchins, distributed in the following manner:

	Acres.
In the lakes - - - - -	46,340,000
In the bays - - - - -	2,660,000
In the rivers - - - - -	2,000,000
	51,000,000

The principal barren tract is the seaboard, from New-Jersey southward. Beside this, the greater part of the state of Rhode Island, and the south eastern counties of Massachusetts, are sandy.

Of the 520,000,000 acres susceptible of advantageous cultivation, only 40,950,000 acres were estimated by Mr. Blodget to be under actual improvement, at the beginning of the year 1811. This estimate we believe to fall far short of the truth.

The land of New-England is principally devoted to the culture

of Indian corn, grass, rye, oats, flax, wheat, buckwheat, barley, and hemp; and a far greater proportion of New-England is under cultivation, than of either of the other great divisions. The improved land of the middle states is employed in the cultivation of wheat, Indian corn, grass, oats, buckwheat, flax, barley, potatoes, spelts, and rye. The agricultural productions of the southern states are cotton, wheat, tobacco, Indian corn, rice, indigo, (formerly) barley, and hemp. We have arranged these various articles, in the three great divisions of the country, according to the quantity raised in each, as far as we have been able to ascertain it. The staple of New-England, is Indian corn; that of the middle states, wheat, and tobacco; and that of the southern, cotton, and rice.

Indian corn, which is also called *maize*, is a native grain, extremely valuable to this country. It grows readily in every part of the United States, demands but little labor, and is almost sure to yield a harvest. The *meadows* of New-England, and the state of New-York, are all natural and perennial; as are most of those in Pennsylvania, and the north part of New-Jersey. The rich land in these districts, if neglected, becomes, of course, a meadow or a forest. In the states southward, on the Atlantic, there are few meadows, and those, except the interval lands on the banks of rivers, are all annual and artificial. The *rye* of the middle states is principally consumed in distilleries; the greater part of that raised in New-England is used for food. Sufficient *barley* is raised to supply the various breweries, and the quantity is increasing. Little, if any, is used for bread. *Hemp* is becoming an object of very extensive cultivation, in several parts of the country, particularly in the western states. The *cotton* raised for exportation is of two kinds, the *sea island*, and the *upland*. The sea island is the best, and commands the highest price, but is the least in quantity. Before the invention of the COTTON MACHINE by Mr. Whitney, no upland cotton was exported, as the expence of cleaning it exceeded the price of the cotton. By means of that machine this process has been greatly facilitated; and the value of the upland cotton exported has, in several years, exceeded 5,000,000 dollars. A small quantity of the *nankin* cotton is also raised in this country.

Bays. The CHESAPEAKE is a very spacious bay, 200 miles in length, from Havre de Grace to the southern extremity, and from 7 to 18 miles in breadth; and covering, according to Mr. Hutchins, 2660 square miles, or 1,700,000 acres. It is generally as much as 9 fathoms deep, and affords many commodious harbors, and a safe and easy navigation. About 125 miles of the length of the bay lie within the state of Maryland, and the remaining 75 within the state of Virginia. The mouths of James, York, and Potowmac rivers are merely arms of the Chesapeake. This is true of the latter river for at least 50 miles from its mouth. This bay receives the waters of the Susquehannah, Potowmac, Rappahannock, York, and James rivers, besides numberless smaller streams, both from the eastern and western shores. It opens, from the west, into the Atlantic, by a mouth 12 miles wide, between cape Charles and cape Henry; the former in lat. 37 12, the latter in 37° N. both in Virginia.

Delaware Bay separates New-Jersey from Delaware. It is 65 miles long from Fisher's Point to cape Henlopen; and, in the broadest part, 30 miles wide; containing, according to Hutchins, about 985 square miles, or 630,000 acres. It receives the waters of no large river except the Delaware. It opens, from the N. W. into the Atlantic, between cape May, in New-Jersey, in lat. 38 56, and cape Henlopen, in Delaware, in lat. 38 47, by a mouth 20 miles broad.

Massachusetts Bay is a part of the ocean putting up between cape Anne and cape Cod. Its length is about 60 miles, and the distance of the two capes 45. It stretches from N. W. to S. E. The south eastern part is called Barnstable bay.

Narragansett Bay, in Rhode Island, is 35 miles long. The first 20 miles of it is a regular paralelogram, 13 miles wide. The remaining 15 will average about 2 miles wide. It covers an area of about 290 square miles, or 185,600 acres. It communicates with the ocean between point Judith, on the west, and point Seaconet, on the east. Its bearing is from N. to S.

Sounds. Long Island Sound, between Connecticut and New-York on the north, and Long Island on the south, is 140 miles long, and from 3 to 25 broad. It has two communications with the ocean. The eastern is broad and unobstructed. At the west end by a narrow strait, 1 mile wide, opposite New-York, it communicates with York bay, and through that with the ocean, at Sandy Hook. The celebrated strait called *Hell Gate* is near the west end of the sound, about 8 miles east of New-York, and is remarkable for its whirlpools, which make a tremendous roaring at certain times of tide. These whirlpools are occasioned by the narrowness and crookedness of the pass, and by a bed of rocks, which extend across it. A skilful pilot may with safety conduct a ship of any burden through this strait with the tide, or, at still water, with a fair wind. The sound affords a very safe and convenient inland navigation.

Pamlico Sound lies between the eastern shore of North-Carolina, and a chain of sand islands, which stretch along the shore of that state through half its extent. The southern part of this body of water is commonly designated by this name; but there is evidently nothing which intervenes to separate it from the northern part. Taken in its whole extent, from its northern extremity in Princess Anne county in Virginia, to cape Lookout, it is not less than 200 miles long. Its breadth varies from 3 to 20 miles. The chain of islands, which separate it from the main ocean, is scarcely a mile wide, and is generally covered with small trees and bushes. There are five of these islands, and a peninsula, separated from each other by five inlets, Currituc, Roanoke, Gant, Ocrecoc, and Cedar; but Ocrecoc is the only one that will admit vessels of burden. There is here 14 feet water at low tide. Six miles within this inlet there is a hard sand shoal, called the *Swash*, lying across the channel. On this there is only 9 feet water at full tide. Ships drawing 10 feet water find good anchorage between the inlet and the sound. There are bars at the mouths of all these inlets,

which are perpetually shifting their places. Pamlico sound receives the waters of Chowan, Roanoke, Pamlico, and Neus rivers.

ALBEMARLE SOUND puts up from Pamlico, into North-Carolina, a distance of 60 miles. It is from 8 to 12 miles broad. It is really a bay, having only one communication with the ocean. It is the estuary of the rivers Roanoke and Chowan.

Capes. The most noted capes in the United States are cape Anne, cape Cod, cape Malabar, Montauk Point, Sandy Hook, cape May, cape Henlopen, cape Charles, cape Henry, cape Hatteras, cape Lookout, and cape Fear.

Rivers. The northern and western frontiers, the St. Lawrence, and the Missisippi, have already been described.

The largest river *within* the United States is the OHIO. It first receives this name at Pittsburg, at the junction of the Allegany and Monongahela. The Allegany has two branches, the eastern and western. The largest, the eastern, called the Allegany, heads in the Allegany mountains in Pennsylvania, near the sources of the Genessee and Tyoga. It crosses the New-York line, runs 50 miles in that state, and in 20 miles, receives, from the northwest, the Connewango river, which rises in Chataughque lake near lake Erie. Then recrossing it, it pursues a southwesterly course to Franklin where it receives French Creek, or the western branch, which rises near lake Erie, is 100 miles in length, and navigable almost to its source. The course of the Allegany thence to Pittsburg is very winding, but on the whole nearly south, the distance 130 miles, and its whole length not less than 400 miles. The Allegany is navigable for a distance of 300 miles from Pittsburg. The Connewango is navigable about 70 miles to the head of Chataughque lake.* The Monongahela rises in Virginia, west of the Laurel range, near the head waters of the Potowmac and the Greenbriar. After running a winding, northerly course about 60 miles, it enters Tygart's valley, where it begins to be navigable for light boats, and is 20 yards wide. At the western fork, 65 miles farther, its width is 200 yards; at the mouth of Cheat river, 40 miles farther, it is 300 yards. It continues of this width 50 miles farther, to the mouth of the Yohiogany, which unites with the Monongahela only 15 miles from its mouth, where the latter river is 400 yards wide. The whole length of the Monongahela is about 300 miles. It is not very navigable, and is a smaller stream than the Allegany. They unite as has been already mentioned at Pittsburg, and form the Ohio. The Ohio is a most beautiful river. Its current is gentle; its waters are clear; and its surface, with scarcely an exception, unbroken by rocks or rapids. Its width at Pittsburg is 440 yards; at the mouth of the Great Kanhawa 500; at Louisville, where it is broader than at any other place, 1200; and at its mouth 900. Its average width through the whole course is about 600 yards. Its length, as measured according to its various meanders, is as follows:

* Boats go from the head of Chataughque to New-Orleans, a distance of 2480 miles. *Schultz.*

	miles.	whole distance.
From Pittsburg to Pennsylvania line	42	42
Marietta - - -	128	170
Hockhocking - -	28	198
Great Kanhawa - -	72	270
Sciota - - -	101	371
Cincinnati - - -	113	484
Great Miami - -	24	508
Kentucky river - -	56	564
Louisville and falls - -	68	632
Green river - - -	187	819
Wabash river - -	68	887
Cumberland river - -	177	964
Tenessee river - -	12	976
Mouth of Ohio - - -	57	1033*

It affords, in the spring, 30 or 40 feet water to Louisville 401 miles from its mouth; 25 or 30 to La Tarte's rapids, 792 miles from its mouth; and a sufficiency at all times for boats to Pittsburg. The only serious obstruction in the river is the rapids at Louisville, in lat. 38 8. The river here descends 10 feet in a mile and a half. In the high spring floods large vessels pass down these rapids with safety; but they present an insuperable obstacle to the return of such vessels, after they have once gone down. The whole descent at the rapids, in the summer is 22 feet. Of the proposed canal at this place we have already given an account.

The ILLINOIS is considerably longer and larger than the Wabash. It rises in the N. E. part of Indiana territory S. E. of lake Michigan. Thence it pursues a winding course, and passes near the Chicago, which falls into the S. W. end of that lake. Between these rivers are two portages, the longest of which does not exceed 4 miles. It flows through a very pleasant, fertile country. It falls into the Missisippi, 20 miles above the junction of that river with the Missouri, and 204 miles above the Ohio.† Its current throughout is gentle, and it is navigable 450 miles. It is 400 yards wide at its mouth.‡

The great branches of the Ohio are the Wabash, the Cumberland and Tenessee.

The TENESSEE is formed by the confluence of two branches, the northern and southern. The northern rises in the western mountains of Virginia, in lat. 37°. It is called the Holston. It runs about 340 miles before the confluence, and is navigable for boats 240, to Long Island. The southern branch, called the Tenessee, rises in the northern mountains of Georgia, and after running about the same distance, unites with the Holston, 30 miles below Knoxville. The united stream pursues a west course 40 miles, and receives the Clinch from the north; then turning south west, in 60 miles it receives the Hiwassee from the south, 66 miles above the *Suck* or *Whirl*, where the river breaks through the Cumberland mountain. At this place the river, which a few miles above is half

* These distances are taken from Schultz's Travels.
† Schultz, II. 39, 42. ‡ Idem, 42.

a mile wide, is suddenly compressed to the width of about 70 yards. Just as it enters the mountain a large rock projects from the northern shore in an oblique direction, which renders the bed of the river still narrower, and causes a sudden bend; the water of the river is of course thrown with great rapidity against the southern shore, whence it rebounds round the point of the rock, and produces the *whirl*, which is about 80 yards in circumference. Boats pass the whirl without danger or difficulty, and boats ascending the river are easily towed up by the bank. The river from this place to the *Muscle Shoals*, a distance of 250 miles, is uniformly smooth and unobstructed. These are 20 miles in length. The bed of the river, in this distance, consists of broken stones, capable of being easily removed, and the navigation is susceptible of great improvement. The river here spreads to the width of three miles, forms a great number of islands, and is of difficult passage, when the waters are low. Hence to the mouth, a distance of 250 miles, the river is navigable throughout the year. The Tenessee unites with the Ohio 57 miles from its mouth. Its whole length is 1026 miles. It was called by the French the *Cherokee*; and the whole river was formerly called by the Americans the *Holston*.

CUMBERLAND river, formerly called the *Shawanee*, and by the French the *Shavanon*, rises in the Cumberland mountains in the S. E. part of Kentucky. From its source to the falls is about 100 miles; and to this place it is navigable for boats. After running 100 miles farther it enters the state of Tenessee and pursues a S. W. course to Nashville 200 miles. There turning to the N. W. it runs 200 miles farther, and enters the Ohio, 12 miles above the Tenessee. It is 300 yards wide at the mouth. It is navigable for large vessels to Obed's river, 90 miles above Nashville. Its whole length is about 600 miles.

The WABASH, a northern branch of the Ohio, is a beautiful river with high and fertile banks. Its whole length is from 650 to 700 miles. It is navigable at all seasons for boats drawing 3 feet water 412 miles, to Ouiatanon, a small French settlement on the west side of the river, and for large canoes 197 miles farther, to the Miami carrying place, 9 miles from the Miami village. This village stands on the *Miami of the Lakes*, which empties into the west end of lake Erie. The communication between Detroit and the Illinois and Ohio countries, is up Miami river, across the carrying place 9 miles, when the rivers are high, and from 18 to 30, when they are low, and down the Wabash to the Ohio. The mouth of the Wabash is 270 yards wide, and is 146 miles above the mouth of the Ohio.

The large Atlantic rivers will be described in their geographical order.

The CONNECTICUT is the great river of New-England. Its principal branch rises in New-Hampshire, runs north across the boundary of Canada, and, making a large semicircular bend, turns southward. About 14 miles north of the 45th degree, it is joined by the western branch called Indian river. The course of the Connecticut is on the whole west of south. After crossing the line, it divides the states of Vermont and New-Hampshire, and passes

through those of Massachusetts and Connecticut. Its whole length is 410 miles. There are 6 falls in this river, viz. the Fifteen Mile falls between Littleton and Dalton, in lat 44 25; the falls at Hanover; Bellow's falls at Walpole, 44 feet; Miller's falls at Montague, 66 feet; the falls at South Hadley, about 70 feet, and the falls at Enfield. The river is navigable for vessels drawing 10 feet water 36 miles to Middletown; and for small sloops, 50 miles to Hartford. By means of canals it has been rendered passable for boats to Barnet, at the foot of the Fifteen Mile falls, about 250 miles above Hartford, following the windings of the river. Probably no river of the same extent has more interval land than the Connecticut; and we believe that none of the Atlantic rivers in the United States, except the Hudson, Susquehannah, and the Potowmac, empty more water into the ocean.

The HUDSON is principally a long, narrow arm of the sea. It rises in the northern part of New-York, between lake Champlain and the St. Lawrence. It is a remarkably straight river, and its course is from N. to S. Its length is 250 miles. It is navigable for ships, 130 miles, to Hudson; and for sloops of 30 tons, 30 miles further, to Albany. The tide in this river flows more than 160 miles. There are two falls between Albany and fort Edward. They are the only obstructions to the passage of boats for the distance of 50 miles. About 30 miles from the ocean the river divides, and embosoms the island of Manhattan, on which stands the city of New-York.

The DELAWARE rises in the S. E. part of New-York, near the head waters of the Susquehannah, and of the Schoharie, a branch of the Mohawk. It empties, through Delaware bay, into the ocean; and may be considered as terminating about 5 miles below Newcastle, in Delaware, or 40 miles below Philadelphia. To this last city it is navigable for a 74 gun ship, for sloops 35 miles further to Trenton falls, for boats of 8 or 9 tons, 100 miles further. The whole length of the Delaware, from its source to the bay, is about 300 miles; and the distance thence to the ocean is 65. The tide rises to the foot of Trenton falls.

The SUSQUEHANNAH rises in lakes Otsego and Otego, in New-York, about 20 miles from the Mohawk. It crosses the Pennsylvania line three times, and is crooked in every part of its course. Batteaux ascend the Susquehannah to the lakes in which it rises. The river has no where any perpendicular or impassable falls, and between the New-York line and the Conewago falls, there are few obstructions from rapids, to the navigation of boats. Around these falls a canal has been dug one mile in length. At Columbia, 20 miles lower down, commences a series of rapids, which continues, with occasional interruptions, 50 miles, to the head of tide-water, 10 miles below the Maryland line. The whole descent, in that distance, is estimated at 140 feet; and the navigation, at all times dangerous, is practicable only during the high freshets. Few boats ever attempt to ascend. The Susquehannah empties into the Chesapeake at Havre de Grace. The distance from its source to its mouth is about 400 miles, and from its mouth, across Chesapeake

bay, to the ocean, 200. The Susquehannah empties more water into the ocean, than any of the Atlantic rivers within the United States.

The POTOWMAC, from its source, is the boundary between Maryland and Virginia. It rises near the headwaters of the Monongahela, and, as we have already mentioned, is connected with it by a public road, 72 miles in length, leading from Cumberland on the Potowmac, across the Allegany mountains, and the river Yohiogany, to Brownsville, at the confluence of the Cheat with the Monongahela. Cumberland lies on the great northern head of the Potowmac, only 4 or 5 miles from the Pennsylvania line. The course of the river, from its source to this place, is N. E. and its length about 140 miles. Its course thence is S. E. Cumberland is 188 miles above tide water, and 191 above the city of Washington. In this distance there are 5 falls; 1st. Little falls, of 37 feet, 6 miles above Washington; 2d. Great falls, of 76 feet, 9 miles higher; 3d. Seneca falls, 6 miles above, a rapid descending about 10 feet; 4th. Shenandoah falls, 60 miles higher, of 15 feet in height; 5th. Hoare's falls, 5 miles above the Shenandoah. Canals have been dug round all these falls, and the navigation of the river so far improved, as to render it passable for boats to Cumberland, through the greater part of the year. The distance of Washington from the mouth of the Potowmac, in the Chesapeake, is 300 miles. Its soundings are 7 fathoms at the mouth, 5 at St. George's island, $4\frac{1}{2}$ at Lower Matchodic, 3 thence to Alexandria, and 10 feet thence to the Little falls. Its width at the mouth is $7\frac{1}{2}$ miles, and $1\frac{1}{4}$ at Alexandria.

JAMES river, in Virginia, rises at no great distance from the head waters of the Potowmac, the Monongahela, and the Greenbriar, a branch of the Great Kanhawa. For about 80 miles it runs S. W. parallel with the Allegany range. It then turns and pursues a course a little S. of E. till it falls into the southern extremity of Chesapeake bay. This is the second of the Atlantic rivers, and naturally the most navigable of all. A 40 gun ship can go up to Jamestown; vessels of 250 tons to Warwick; and those of 125 tons to Rockets, a mile below Richmond. Thence there is 7 feet water to the town. About the centre of the town terminate the Great falls, which, in 7 miles, descend 43 feet. The canal around them has been described. The company by charter is bound to render the river navigable for boats drawing 12 inches water from Pattonborough to Richmond, a distance of 227 miles. This obligation has, to a considerable extent, if not wholly, been complied with.

The ROANOKE is formed by two branches, the Staunton and the Dan. Both rise in the Allegany range, the former in Virginia, the latter in North-Carolina, a small distance from the Virginia line. They unite a few miles from that line in Virginia, and forming the Roanoke pursue a southeasterly course to Albemarle sound. It is navigable only for shallops, and for these not more than 60 or 70 miles, on account of the falls in the back country.

The sources of the PEDEE are in the Allegany range, at no great distance from those of the Kanhawa and Tenessee. Its course is

S. E. It is called the *Yadkin* from its source to the mouth of the Uwharre, a few miles below the narrows; and the *Pedee* thence to the ocean. It is navigable for sloops of 70 tons, about 130 miles, to Greenville, and for smaller boats to Chatham, 20 miles higher. Boats cannot ascend above this place, although in the spring they come down from the *Narrows*, about 80 miles above Chatham, and 75 above the boundary line. The obstructions above Chatham, it is supposed, may be easily removed. At the Narrows, the rapidity of the current, and the large rocks, render it impossible to pass either way with a loaded boat. Here the boats from above are unfreighted, and the lading carried round the narrows, in waggons, the distance of 7 or 8 miles. Above the Narrows the river has been rendered passable for boats 126 miles.

The SANTEE is larger and longer than the Pedee. Their sources are in the same range, at a small distance apart. It is called the *Catawba* in North-Carolina, and the *Santee* in South-Carolina. It is navigable for sloops of 70 tons to Camden, 140 miles. There are several falls above Camden, none of them very high, for the river is occasionally navigable for boats from Morgantown in North-Carolina. The Santee runs about 240 miles in South-Carolina. It empties into Winyaw bay 12 miles below Georgetown. Its course is S. E. It is connected by a canal with Cooper river, which empties into Charleston harbor.

The SAVANNAH is somewhat longer than the Santee. It is formed by the confluence of the Keowee and the Tugulo, both of which rise in the Allegany range, near the North-Carolina line. The course of the Savannah is S. E. It is navigable for large vessels to Savannah, 17 miles from the ocean, and for boats of 100 feet keel to Augusta, which, by water is 340 miles above Savannah, (127 by land.) Just above Augusta there are falls in the river. Boats of 30 tons pass without difficulty from the upper end of these falls to Vienna, which lies opposite the mouth of Broad river, a distance of 60 miles; and it is said that, at a small expense, the river may be rendered navigable from Vienna to Andersonville, at the junction of the Keowee and the Tugulo, a distance of 60 miles more. The whole length of the Savannah is probably from 450 to 470 miles.

The ALATAMAHA rises near the Savannah, in the same range of mountains. It is formed by the waters of the Okmulgee and the Oconee. The Okmulgee, the principal stream, pursues a winding course of 250 miles among the mountains, and of 150 in the plain country, before it receives the Oconee from the east, which heads in the lower ridge of mountains. The Alatamaha, after the confluence, pursues a course of 100 miles to the ocean, which it enters by two channels, 60 miles S. W. of the Savannah. The whole length of the Alatamaha is about 500 miles.

These are all the large rivers of the United States, which fall directly into the Atlantic. There are two others, the Apalachicola, and the Mobille, which empty into the gulf of Mexico.

The APALACHICOLA rises in the northern part of Georgia. For a considerable part of its course, it serves as a boundary between Georgia and the Missisippi territory; afterwards, for a small dis-

tance, between Georgia and West Florida; and, south of Flint river, between West Florida and East Florida. This river is longer than the Alatamaha. It is navigable for boats and gallies some distance higher than lat. 31° N. Little, however, is known respecting it.

The MOBILLE, 40 miles from its mouth, branches into the Alibama and the Tombigbee. These rivers are each about 400 miles in length. The Alibama rises in Georgia, near the Hiwassee, a branch of the Teneessee, its course is S. W. The Tombigbee rises in the northern part of the Missisippi territory, near the sources of the Yazoo. It is navigable, for schooners, about 60 or 80 miles; and, for boats, it is said to be passable nearly its whole length. Its course is a little E. of S. The Mobille, after the junction, runs S. 40 miles, and empties into Mobille bay, and, through that, into the gulf of Mexico.

The smaller rivers will be described in our account of the separate states.

Lakes. In our account of America we described the lake of the Woods, Rainy lake, lakes Superior, Michigan, Huron, St. Clair, Erie, and Ontario. All these, except Michigan, are half in Upper Canada, and half in the United States. Michigan lies wholly within the United States.

Lake CHAMPLAIN lies between the states of Vermont and New-York. From Skeensborough, at the southern extremity, to lat. 45° it is 100 miles long. Its breadth varies from 1 to 25 miles. In lat. 45° it narrows to a river, called the Sorelle, which after a course of 100 miles falls into the St. Lawrence between Montreal and Quebec.

The small lakes will be described hereafter.

Swamps. These are not very numerous, and are principally found in the southern states.

OKEFONOKE. This is in the southeast extremity of Georgia, and will be noticed in our description of that state.

DISMAL. This is a large swamp in the eastern part of Virginia and North-Carolina. It occupies a surface of about 150,000 acres, generally covered with trees; in the most parts with juniper and cypress; and in those that are drier with white and red oak, and several species of pines. These forests abound with bears, wolves, and deer; and, unlike most of the southern forests, are filled with underbrush. The Chesapeake and Albemarle canal passes through it; and is fed by a lake in the swamp, called lake Drummond, which is 15 miles in circumference, and 6 feet higher than the water of the canal. The southern part of the swamp proves excellent rice land; and is, at the same time said to be healthy.

ALLIGATOR. This, also, is in the eastern part of North-Carolina, in Currituc county, south of Albemarle sound. Near the centre it contains a large lake; the waters of which are conducted by an artificial canal to the Skuppernong. The object of this canal was to drain the swamp, and a large number of acres round the lake have thus been converted into an excellent rice plantation.

This swamp is very large; but we are unable to form any exact estimate of its extent.

Mountains. The principal chain of mountains in the United States is the APALACHIAN. It consists of two principal ranges, and its whole breadth may be estimated at 110 miles.

The western or Allegany preserves a distance of from 250 to 300 miles from the coast. Its southern extremity is near the great bend of the Tenessee, where it is called the Cumberland mountains. It pursues a northeasterly course through Virginia, and a part of Pennsylvania, to the sources of the Susquehannah, where it assumes a more easterly direction, till it terminates under the name of the Catskill mountain within 5 miles of the Hudson. The Catskill mountain is the highest in the range and is the only high mountain in it north of Virginia. The range in Virginia and Tenessee is considerably elevated. Cumberland, Kanhawa, Greenbriar, Monongahela, and Yohiogany rivers flow from it westwardly, and the James, Potowmac, Susquehannah, and Delaware eastwardly.

The eastern or Blue ridge is narrower than the western, and parallel with it. Its northern extremity is the highlands at West Point. In its southwest course it traverses under various names, New-York, New-Jersey, Pennsylvania, Maryland, and Virginia. On the borders of North-Carolina it is joined by a spur from the western range, and thence to its southern extremity, 60 miles south of the northern line of Georgia, becomes the principal or dividing mountain, discharging eastwardly the rivers Roanoke, Pedee, Santee, Savannah, and Alatamaha into the Atlantic; southwardly the Alibama and Mobille into the gulf of Mexico; and westwardly the Tenessee into the Ohio. The Blue ridge is pierced by all the great rivers north of the southern line of Virginia.

Between these two ranges lies the fertile limestone valley, which, although occasionally interrupted by transversal ridges, and in one place by the dividing or Allegany ridge, may yet be traced from Newburgh and Esopus on the Hudson, to Knoxville on the Tenessee.

In Virginia, east of the Blue ridge and parallel with it, is a low range called the South mountains; and west of the Allegany range is another, called the Laurel mountains. These are short compared with the other, and of so moderate a height, that they only serve to break the descent from the two principal ranges, to the country below them.

The mountains of New-England are either long ranges, or separate summits. The western or TAGHCONNUC range, begins at Ridgefield, in the county of Fairfield, in Connecticut, 12 miles from Long Island sound, and passing through the counties of Litchfield and Berkshire, may be said to unite with the Green mountains at Williamstown, in Massachusetts, being there separated only by the narrow valley of Hoosac river. The highest summit in this range is Taghconnuc mountain, in Egremont, in the southwest corner of Massachusetts. It is probably upwards of 3000 feet high.

The GREEN mountain range begins at New-Haven, two miles from the sound, in a noble bluff called *West Rock*, and extends

thence to the Canada line; sloping, however, with a gradual declension in the northern parts of Vermont, and in Canada becoming merely a collection of small hills. The two highest summits of this range are the Camel's Rump, and the mountain of Mansfield, both in the county of Chittenden, in Vermont, and both probably upwards of 5000 feet high.

The MOUNT TOM range commences also at New-Haven, at another precipice called *East Rock*, two miles from the sound; and passing through the counties of New-Haven, Hartford, and Hampshire, extends into Canada through the whole length of the state of New-Hampshire. Connecticut river breaks through this range below Northampton, in Massachusetts. The Blue hills in Southington, Connecticut; Mount Tom and Mount Holyoke in the vicinity of Northampton and Hadley; and Mount Toby in Sunderland, are the principal summits.

The LYME range begins at Lyme near the mouth of Connecticut river, and unites with the Mount Tom range after it has crossed that river in the county of Hampshire. It has no remarkable summits, and never rises to any considerable height.

The WHITE mountains in New-Hampshire are a round clump with numerous summits loosely connected with the Mount Tom range, which passes somewhat west of them. *Mount Washington*, the highest of these summits is said to be more than 11,000 feet above the level of the ocean, and far higher than any other land in the United States. It is covered a great part of the year with snow, and in this situation is seen 90 miles at sea, and 160 from its base. The *Pondicherry* mountains, a short but lofty spur from the White mountains on the northwest, and may be considered as connecting them with the Mount Tom range. Moosehillock or Moosecheelock are short ranges, in New-Hampshire of very considerable height. The summit called Moosehillock is probably upwards of 5000 feet high.

Of single eminences *Saddle* mountain, in the towns of Adams and Williamstown, in Massachusetts, is about 4000 feet high. *Watchusett* in Princeton, in the county of Worcester, is 2989 feet in height. *Ascutney* is a noble mountain in Windsor, Vermont. *Monadnoc* is a very lofty conical mountain in Jaffrey, New-Hampshire. *Grand Monadnoc* is a still higher eminence, in Vermont, near the Canada line. The Connecticut valley lies between the Lyme and Mount Tom ranges from the sound to the passage of Connecticut river through the latter, north of which place the Mount Tom range bounds it on the east, and the Green mountains on the west, as far north as the Canada line. The Housatonnuc valley lies between the Taghconnuc and Green mountain ranges.

There is a characteristic difference between the mountains of New-England, and the Apalachian ranges. The former run parallel with the great rivers of the country and perpendicularly to the coast. The latter run parallel with the coast and transversely to the courses of the rivers.

Forests. Hardly a spot could have been found in the United States, which was not covered with forest trees, when they were

first settled. And those parts of the country which are not yet cleared and cultivated, which are probably three fourths of the whole, still retain their natural covering. Forests far more extensive than any of the celebrated forests of Europe are found in every part of the country. None of them, however, have received a name.

Botany. Much less is known of the natural history of the United States, than of that of most European countries, and than might fairly be demanded of our countrymen. The productions of the southern states and of Canada, have not been well described by any one author, in a work professedly for that purpose; but are mostly intermixed with the productions of other parts of the world, in the large works of European botanists. This renders it difficult to select them, and to give an accurate connected account of them. To remedy this inconvenience, and to rescue this country from the reproach of not having any authentic and scientific account of its natural history, Dr. Cutler, who has already examined nearly all the vegetables of New-England, has for some time contemplated the publication of a botanical work of considerable magnitude, confined principally to the productions of the New-England states. Dr. Barton, of Philadelphia, has been collecting materials for a work of a similar nature, to comprehend the middle and southern states; when finished, both together will form a complete natural history of the American states.

The following catalogues, furnished by Dr. Cutler, are all incomplete, and designed only to give general information concerning the natural history of New-England.

Grain, cultivated in the Eastern and Middle States. Indian corn, several species, a native grain of North-America. The *varieties* of this grain, occasioned by difference in soil, cultivation, and climate, are almost endless. Winter and summer rye. The winter rye succeeds best in ground newly cleared; but summer rye is frequently sown in old towns, where the land has been long under cultivation. The winter and summer rye are the same species, forming two varieties; but the winter and summer wheat are two distinct species. Several species of barley are cultivated, the most common is the six ranked and the two ranked. The wheat principally cultivated are the winter and summer oats and buck wheat.

In the southern states, as far north as Virginia, where the lands are suitable, besides the grain already mentioned they cultivate rice. This grain was brought into Carolina first by Sir Nathaniel Johnson, in 1688; and afterwards more and of a different kind, probably what botanists call *a variety*, was imported by a ship from Madagascar in 1696; till which time it was not much cultivated. It succeeds well also on the Ohio river, where it is planted both on the high and low grounds, and in the same fields with Indian corn and other grain. It has yielded at the rate of 80 bushels an acre. At Marietta, it has answered the most sanguine expectations of the inhabitants, producing equal to any other grain, without being at any time overflowed with water. It was not of the same species of the Carolina rice. It is probably the wild rice, which grows in plenty,

in some of the interior parts of North-America, and is the most valuable of all the spontaneous productions of the country. In Pennsylvania there grows a sort of grain, called by the Germans, *Spelts*, which resembles wheat; and is a very valuable grain.

Cultivated Grasses in the Eastern and Middle States. Most of the grasses in the middle and New-England states, are indigenous. It is not improbable that some of them may be naturalized exotics. The following are the principal grasses sown in the cultivated ground, or in any way propagated for feed and hay.

Herds grass or fox tail, which is reckoned the best grass, is a native, and supposed to be peculiar to this country. Blue grass. Many species of bent, particularly the Rhode Island bent. The small and great English grass, wire grass, fowl meadow grass,* red and white Clover.

The grasses of Virginia, according to Mr. Jefferson, are Lucerne, St. Foin, burnet, timothy, ray and orchard grass, red, white and yellow clover; greensward, blue grass and crab grass. South of Virginia very little attention is paid to the cultivation of grasses.

The winters are so mild, that the cattle find a tolerable supply of food in the woods.

Native Grasses in New England. Besides the cultivated grasses, already mentioned, New-England has a great variety which are found growing in their native soils and situations, many of which have not been described by any botanical writers. The small experiments which have been made, sufficiently evince that several of them make excellent hay. They might be greatly improved by cultivation, and are highly worthy the attention of the farmers. Those which are found most common are the following, viz. The vernal grass. Timothy, or bulbus cat's tail grass. Several species of panic grass. Several species of bent. Hair grass. Numerous species of *poa*. Quaking grass, several species. Cock's foot grass. Millet. Fesque grass, many species. Oat grass. Reed grass, several species. Brome grass. Lime grass. Barley grass. Dog's or couch grass. Many species of rush grass. Numerous species of *carex*, in fresh and salt marshy ground. Several species of beard grass. Soft grass. Besides these there are many valuable grasses which, at present, are non-descripts.

Wild Fruits in New-England. Black currant, gooseberry, prickly gooseberry. Two species of grapes—the black grape and fox grape. Of these two species we have many *varieties*, differing only in size, color, and taste. An excellent wine, and in large quantities, has lately been made by the French people at their new settlement, on the Ohio river, from the native grapes, without any kind of cultivation. They collected the grapes promiscuously from all the varieties growing in that country. By separating them, wines of a different, and no doubt some of them of a much better quality, might have been made. The native grape is propagated

* "The fowl meadows, on Neponsit river, between Dedham and Stoughton, are considered by some a curiosity A large tract of land is there cleared and sowed with an excellent kind of grass, without the assistance of man." *Dr. Fisher.*

with great ease; its growth is luxuriant, overspreading the highest trees in the forests, and, by proper attention to the cultivation of the wine grape, would afford an ample supply of wines in the northern as well as southern states. The principal difficulty seems to be a want of a proper knowledge of the process in making wine, and preparing it for use. Barberry bush, whortleberry, blueberry, white whortleberry, Indian gooseberry, long leaved whortleberry, cranberry, red and yellow plum, beach plum, large black cherry, purple cherry, wild red cherry, dwarf or choke cherry, mountain cherry, service tree, brambleberry, sowteat blackberry or bumblekites, briar blackberry, dewberry, common raspberry, smooth stalked raspberry, white raspberry, superb raspberry, mulberry, strawberry. The native strawberry is much improved by cultivation, and produces a larger and better flavoured fruit than the exotic.

For information on this article respecting the southern states, the reader may consult what Catesby, Clayton, Jefferson, and Bartram have written upon it.

Nut Fruit. White oak, red oak, and several other species with smaller fruit. Black walnut, white walnut, butternut, or oilnut, white, or round nut hiccory, shagbark hiccory,* chesnut, chinquipin, or dwarf chesnut, beechnut, hazelnut, filbert.

We may here mention the peccan or Illinois nut. This nut is about the size of a large long acorn, and of an oval form, the shell is easily cracked, and the kernel shaped like that of a walnut. The trees which bear this fruit grow, naturally, on the Missisippi and its branches, south of 40° north latitude. They grow well when planted in the southern Atlantic states.

Medicinal Plants in New-England. Among the native and uncultivated plants of New-England, the following have been employed for medicinal purposes.† Water horehound, blue flag, skunk cabbage, partridgeberry, great and marsh plantain, witch hazel, hound's tongue, comfrey, bear's ear sanicle, appleperu, bittersweet, tivertwig, or American mazerion, elm;‡ great laserwort and wild angelica, cow parsnep; this plant is possessed of valuable medicinal properties; angelica, or American masterwort, water elder, elder, chickweed, pettitmorel, or life of man, sarsaparilla, marsh rosemary, sundew, Solomon's seal, adder's tongue, unicorn, sweet flag, several species of dock, bistort, arsmart, spicewood or feverbush, sassafras, consumption root, rheumatism weed, mouse ear, gargit or skoke, wild hyssop, agrimony, common evens, or herb bennet, water evens, or throat root, cohush; this is a valuable plant; blood root, or puccoon, celandine, yellow water lily, pond lily, catmint, or catnip, head betony, horsemint, spearmint, watermint, and penniroyal, ground ivy, or gill-go-over-the-ground, hedge nettle, horehound, motherwort, wild majorum, wild lavender, wood

* The same, probably, as Clayton's scaly bark hiccory of Virginia.

† It is not to be understood that *all* these plants are considered as deserving the attention of physicians, nor yet that this catalogue includes *all* that are used by mere dabblers in medicine, male and female, black and white and red, otherwise it must include the whole vegetable kingdom.

‡ The bark of the sweet elm is a most excellent mucilage.

betony, shepherd's purse or pouch, water cresses, cranesbill, marsh mallow, mallow, succory, burdock, devil's bit; the root resembles the European devil's bit, from which circumstance the English name has probably been applied to this plant; tansey, wormwood, life everlasting, colt's foot, golden rod, elecampane, mayweed, yarrow, American pride, three other species of lobelia, dragon root, stinging nettle, white walnut, butternut, or oilnut, swamp willow, sweet gale, white hellebore, or pokeroot, moonwort, female fern, hart's tongue, spleenwort, lungwort, black maidenhair.

Among a great variety of other medicinal plants in the southern and middle states are Indian pink root, an excellent vermifuge, senna, clivers or goose grass, palma christi, from which the castor oil is extracted, several species of mallow, Indian physic, pleurisy root, Virginia snake root, black snake root, Seneca rattle snake root, valerian, ginseng, angelica, cassava.

Forest Trees. Were we possessed of accurate materials for the purpose, it would far exceed the limits of a work embracing such a variety of subjects, to give a complete catalogue of our trees. From the foregoing catalogues the reader must necessarily conclude that they are very numerous. And it ought to be observed that almost all of them, for some purpose or other, have been used as timber. Some of the most useful species of trees, however, must not be omitted, and are the following: *Elm.* Of this tree there is but one species, of which there are two varieties, the white and the red. *Wild Cherry;* many species, highly valued for cabinet work. *Locust;* of quick growth, good for fuel, and excellent for posts to set in the ground, and trunnels for ships. These trees are much more scarce than formerly. A species of worm has destroyed many of them. *Birch;* several species, white, black, red or yellow. *Oak;* several species, black, red, three varieties, white shrub or ground oak, chesnut oak, live oak, black Jack oak; the two last are peculiar to the southern states. *Chesnut;* chiefly used for fencing. *Beach;* three varieties. *Pine;* eight species; white, the prince of the American forests, in size and majesty of appearance; it is found in the greatest abundance in Maine, New-Hampshire, and Vermont, excellent for masts, bowsprits, and yards for ships. Yellow pine; its plank and boards are used for the floors of houses and the decks of ships. Norway pine, black or pitch pine; when burnt in kilns it makes the best of charcoal; its knots and roots being full of the terebinthine oil, when kindled, afford a brighter light than candles; its soot is collected and used for lamp-black. It grows thinly in the New-England and middle, but in the greatest plenty in the southern states, between the sea coast and the mountains. From it they make tar in large quantities. The larch pine; its turpentine is said to be the same with the Burgundy pitch. Besides these, naturalists reckon the fir, spruce, hemlock. *White Cedar. Juniper* or *Red Cedar;* it produces the juniper-berry, which is used in the gin distilleries, and is said to be of a much better quality for making gin than the juniper berries imported from Europe, which are the fruit of a different species. *White Cedar*, of the southern states, different from the white cedar

of the northern states. *Cypress;* found only in the southern states, used for shingles and other purposes; grows in swamps very large. *White Willow;* the bark of its root is an excellent substitute for the Peruvian bark. *Ash;* two species, black or swamp ash and white ash. *Maple;* three species, white, much used in cabinet work, red, black rock or sugar maple; its sap has a saccharine quality: and when refined and hardened by boiling and baking, makes a well tasted and wholesome sugar, the manufacture of which has greatly increased in the eastern and middle states, within a few years past.

There is in the United States an infinitude of trees of less note, and many probably equally noticeable with those enumerated, for a catalogue and description of which, the reader is referred (till a more perfect catalogue be furnished by Dr. Cutler and Dr. Barton) to Catesby's Natural History, Marshall's Arbustum Americanum, Dr. Clayton's Flora Virginica, Mr. Jefferson's Notes on Virginia, Mr. Bartram's Travels through North and South-Carolina, &c. Dr. Cutler's paper in the Memoirs of the American Academy, and Dr. Belknap's History of New-Hampshire, vol. iii.

Exotic Fruits. Of these, apples are the most common in the United States. They grow in the greatest plenty and variety in the eastern and middle states; and the cider which is extracted from them affords the most common and wholesome liquor that is drank by the inhabitants. The *crab apple*, though not an exotic, on account of its being a genuine, but distinct species of the apple, ought to be mentioned in this connection. It grows in all parts of North-America, which have been explored, from the Atlantic as far west as the Missisippi. Its blossoms are remarkably fragrant; its fruit small, possessing, perhaps of all vegetables, the keenest acid. The cider made of this fruit is admired by connoisseurs. It makes excellent vinegar. The European crab apple is very different from this. The other exotic fruits are pears, peaches, quinces, mulberries, plums, cherries, currants, barberries; of all which, except quinces and barberries, we may have many species and varieties. These with a few apricots and nectarines, flourish in the eastern states, and are in perfection in the middle states.*

The exotic fruits of the southern states, besides those already mentioned, are figs, oranges, and lemons.

Pulse and Hortuline Plants and Roots. Besides those transplanted from Europe to America, of which we have all the various kinds that Europe produces, the following are natives of this country; potatoes, ground nuts, a sort of potatoe, probably a species, highly relished by some people, tobacco, pumpkins, cymlings, squashes, cantelope, melons, beans, peas, hops, probably others.

Zoology. America contains at least one half, and the United

* "In regard to tree fruit," says Dr. Tenney, "we are in too northern a climate to have it of the first quality, without particular attention. New-York, New-Jersey, and Pennsylvania have it in perfection. As you depart from that tract, either southward or northward, it degenerates. I believe, however, that good fruit might be produced even in New-Hampshire, with suitable attention. *Belknap's Hist. N. H. vol.* iii. *p.* 140.

States, about one fourth of the quadrupeds of the known world. Some of them are common to both continents; others are peculiar to the western. Comparing individuals of the same species, in the two continents, some are perfectly similar; between others there is some difference in size, color, or other circumstances; in a few instances the animal of the eastern continent is larger than the American; in most the reverse is the case. The following is a catalogue of the quadrupeds in the United States.*

Mammoth	* Sallow Cougar	* Woodchuck	* American Rat
* Bison	* Grey Cougar	Urchin	* Shrew Mouse
* Moose	* Mountain Cat	* Hare	* Purple Mole
* Caribou	* Lynx	* Racoon	* Black Mole
* Red Deer	* Kincajou	* Fox Squirrel	* Water Rat
* Fallow Deer	* Weasel	* Grey Squirrel	* Beaver
* Roe	* Ermine	* Red Squirrel	* Musquash
* Bear	* Martin	* Striped Squir.	* Morse
* Wolverene	* Mink	* Flying Squir.	* Seal
* Wolf	* Otter	* Field Mouse	Maniti
* Fox	* Fisher	Bat	Sapajou
* Catamount	* Skunk	* Ground Mouse	Sagoin
* Spotted Tyger	* Opossum	* Wood Rat	

N. B. Those animals to which an asterism (*) is prefixed, are fur animals, whose skins are sometimes dressed in alum, with the hair on, and worn in dress; or whose fur or soft hair is used for various manufactural purposes.

The fallow deer, grey fox, martin, otter, opossum, woodchuck, hare, some of the squirrels, and the beaver, have been tamed. Probably most of these and some others might be perfectly domesticated. It has been observed of our wild animals in general, that they are not of so savage a nature as those in Europe.

Mammoth. This name has been given to an unknown animal, whose bones are found in the northern parts of both the old and new world. From the form of their teeth, they are supposed to have been carnivorous. Like the elephant they were armed with tusks of ivory; but they obviously differed from the elephant in size; their bones prove them to have been 5 or 6 times as large. These enormous bones are found in several parts of North-America, particularly about the salt licks or springs, near the Ohio river. These licks were formerly frequented by a vast number of graminivorous animals, on account of the salt, of which they are excessively fond. From the appearance of these bones, some of which are entirely above ground, others wholly buried, it is probable that the animals died at different periods; some perhaps as lately as the first settlement of this country by the Europeans.

Bison, or Wild Ox. This animal has generally been called the buffaloe, but very improperly, as this name has been appropriated to another animal. He is of the same species with our common

* The author is indebted to Dr. Fisher, of Beverly, for a great part of this article.

neat cattle; their difference being the effect of the domestication of the latter. Compared with the domestic ox, the bison is considerably larger, especially about the fore parts of his body. On his shoulders arises a large fleshy or grisly substance, which extends along the back. The hair on his head, neck and shoulders, is long and woolly, and all of it is fit to be spun, or wrought into hats. Is found in the middle states.

These animals were once exceedingly numerous in the western parts of Virginia and Pennsylvania; and so late as the year 1766, herds of 400 were frequently seen in Kentucky. This animal is found of the largest size, and in the greatest numbers, on the Missisippi, in about 43° N. lat. corresponding in climate to about 42° on the Atlantic coast, which is found to be most favourable to the ox.

The American forests abound with various animals of the deer kind. Naturalists have arranged them differently. I have followed M. de Buffon, who has reduced them all to the several species known in Europe.

Moose. Of these there are two kinds, the black and the grey. The black are said to have been from 8 to 12 feet high; at present they are very rarely seen. The grey moose are generally as tall as a horse, and some are much taller; both having spreading, palmated horns, weighing from 30 to 40 pounds. They are found in New-England.

Caribou. This animal is distinguished by its branching, palmated horns, with brow antlers. He is probably the rein-deer of the northern parts of Europe. From the tendons of this animal, as well as of the moose, the aboriginal natives made very tolerable thread. Found in the District of Maine.

Deer. The *Red Deer** has round branching horns. Of this species we have three or four different kinds or varieties; one of which, found on the Ohio river, and in its vicinity, is very large, and there commonly called the Elk.

The Fallow Deer* has branching palmated horns. In the United States these animals are larger than the European, of a different color, and supposed by some to be of a different species. In the southern states are several animals supposed to be varieties of the Roe Deer.

Bear. Of this animal two sorts are found in the northern states; both are black, but different in their forms and habits. One has short legs, a thick, clumsy body, is generally fat, and is very fond of sweet, vegetable food, such as sweet apples, Indian corn in the milk, berries, grapes, honey, &c. Probaby he is not carnivorous. As soon as the first snow falls he betakes himself to his den, which is a hole in a cleft of rocks, a hollow tree or some such place; here he gradually becomes torpid; and dozes away the winter, sucking his paws, and expending the stock of fat which he had previously acquired.

* The male of the Red Deer is called *Stag*; the female, *Hind*; the young, *Calf*. The male of the Fallow Deer is called *Buck*; the female, *Doe*; the young, *Fawn*. The *Roe Buck* and *Roe Doe* are the male and female of the Roe.

The other sort is distinguished by the name of the ranging bear, and seems to be a grade between the preceding and the wolf. His legs are longer, and his body more lean and gaunt. He is carnivorous, frequently destroying calves, sheep, and pigs, and sometimes children. In winter he migrates from the north to the southward. The *former* appears to be the common black bear of Europe, but larger, some weighing upwards of 400 pounds; the *latter* corresponds to the brown bear of the Alps; and is probably of the same species with those spoken of 2 Kings, ii. 24th, which formerly inhabited the mountainous parts of Judea, between Jericho and Bethel. Found in all the states.

The WOLVERENE, called in Canada the carcajou, and by hunters the beaver-eater, seems to be a grade between the bear and the woodchuck. He is probably the badger of Europe. His length is 1½ feet and upwards; his circumference nearly two feet; his head and ears resemble a woodchuck's; his legs short; feet and paws large and strong; tail about 7 inches long, black and very bushy or shaggy; hair about two inches long, and very coarse; his head sallow grey; back, almost black; breast, spotted with white; belly, dark brown; sides and rump, light reddish brown. This animal lives in holes, cannot run fast, and has a clumsy appearance. He is very mischievous to hunters, following them when setting their traps, and destroying their game, particularly the beaver. Found in the northern states.

WOLF. Of this animal, which is of the dog kind, or rather the dog himself in his savage state, we have great numbers, and a considerable variety in size and color. The dimensions of a skin, measured while writing this account, were as follows: Length of the body 5 feet; the fore legs 18 inches; of the hind legs 15 inches; of the tail 18 inches. The circumference of the body was from 2½ to 3 feet. The color of these animals in the northern states, is generally a light, dirty sallow, with a list of black along their back. In some, the black is extended down their sides, and sometimes forms waving streaks; others are said to be spotted: Some of them, particularly in the southern states, are entirely black, and considerably smaller. Found in all the states.

FOX. Of foxes we have a great variety; such as the silver fox, red fox, grey fox, cross fox, brant fox, and several others. Naturalists have generally supposed that there is more than one species of foxes, but they differ very much in their mode of arranging them. It is highly probable, however, that there is but one species of these animals, as they are found in all their varieties of size, and of shades variously intermixed, in different parts of the United States. Foxes and other animals furnished with fur, of the northern states, are larger than those of the southern.

CATAMOUNT. This animal, the most dreaded by hunters of any of the inhabitants of the forests, is rarely seen, which is probably the reason why no account of him has ever been published, to our knowledge, except what is contained in a letter of Mr. Collinson's to M. de Buffon. The dimensions of one, killed a few years ago, in New-Hampshire, as nearly as could be ascertained by the skin,

were as follows: The length of his body (including the head) 6 feet; circumference of his body 2½ feet; length of his tail 3 feet, and of his legs about 1 foot. The color, along his back, is nearly black; on his sides, a dark reddish brown; his feet black. He seems not calculated for running, but leaps with surprising agility. He is found in the northern and middle states.

Spotted Tyger. Its skin resembles that of the African spotted tyger, except that the stripe along the back from the head to the tail is not so dark. It measures from 5 to 6 feet in length and 4 feet in circumference. It is found on the Missisippi near and above New-Orleans.

Sallow Cougar. The body of this animal is about 5 feet long; his legs longer in proportion to his body, than those of the common cat. His color is a dark sallow. In his habits and manners he resembles the rest of the family. He is found in the southern states, and there called the tyger.

Grey Cougar. This animal in its form resembles the preceding; but is of a uniform grey color, and of a larger size. One of about a year and a half old was, in 1796, shown in Charlestown. He had been reared in confinement and was then growing. His body measured about 5 feet and his tail 3. Some are *said* to have been found in their native forests nearly twice as long. He played with a cat, as a cat does with a mouse, and afterwards killed and ate it. It is strong, active, fierce, and untameable. Found in the western parts of the middle states.

Mountain Cat. (*Pardalis*, Linn. *Ocelot*, de Buffon.) The length of his body is from 3½ to 4 feet; his tail is about 2 feet. His color is a sallow ground, with black spots and stripes. The male has a black list along his back, and is the most beautiful animal of the cat kind. He is exceedingly fierce, but will seldom attack a man. Found in the southern states.

Lynx. We have three kinds of the lynx, each probably forming a distinct species. The *first* (*Lupus cervarius*, Linn. 3d. Edit.) is called by the French and English Americans, *Loup cervier.** He is from 2½ to 3 feet in length; his tail is about 5 inches. His hair is long, of a light grey color, forming, in some places, small, irregular, dark shades; the end of his tail is black. His fur is fine and thick. He is the lynx of Siberia, and some of the northern parts of Europe. A few may be found in the northeastern parts of the District of Maine; but in the higher latitudes they are more numerous.

The *second* (*Catus cervarius*, Linn.) is called by the French Americans, *Chat cervier*; and in New-England the wildcat. He is considerably less than the former, or the *Loup cervier*. He is from 2 to 2½ feet long; his tail is proportionably shorter, about 3 inches long, and wants the tuft of black hair on the end of it. His hair is shorter, particularly on his legs and feet; is of a darker color, brown, dark sallow and grey, variously intermixed. His fur is said to be of a very different quality; his ears are shorter, and he

* Pronounced Loocervee.

has very little of the pencil of black hairs on the tips of them, which is so remarkable in the former kind. This animal destroyed many of the cattle of the first settlers of New-England.

The *third* species is about the size of a common cat. The color of the male is a bright brown or bay, with black spots on his legs. His tail is about 4 inches long, and encircled by 8 white rings: The female is of a reddish grey. Found in the middle and southern states.

KINCAJOU. This animal is frequently confounded with the carcajou, though he resembles him in nothing but the name. He belongs to the family of cats; at least he very much resembles them. He is about as large as a common cat, and is better formed for agility and speed, than for strength. His tail gradually tapers to the end, and is as long as his whole body. His color is yellow. Between him and the fox there is perpetual war. He hunts in the same manner as do other animals of that class; but being able to suspend himself by twining the end of his tail round the limb of a tree, or the like, he can pursue his prey where other cats cannot; and when he attacks a large animal, his tail enables him to secure his hold till he can open the blood vessels of the neck. In some parts of Canada, these animals are very numerous, and make great havoc among the deer, and do not spare even the neat cattle. But we have heard of none in these states, except a few in the northern parts of New-Hampshire.

The WEASEL is about 9 nine inches in length; his body is remarkably round and slender; his tail long and well furnished with hair; his legs very short, and his toes armed with sharp claws. His hair is short and thick, and of a pale, yellowish color, except about the breast, where it is white. This is a very sprightly animal; notwithstanding the shortness of its legs, it seems to dart rather than to run. He kills and eats rats, striped squirrels and other small quadrupeds: He likewise kills fowls, sucks their blood, and esteems their eggs a delicacy.

The ERMINE does not differ materially from the weasel, in size, form or habits; even his color is the same in summer, except that the end of his tail is black, and the edges of his ears and toes are white. In winter he is entirely white except the tip of his tail He is generally considered as forming a species distinct from the weasel; but Linnæus makes them the same. They are found in Canada; and Dr. Belknap mentions that a few have been seen in New-Hampshire.

In addition to the preceding, we have another variety of this family. It appears to differ from the weasel in no respect except its color, which is perfectly white, both in summer and winter.

MARTIN. This animal is formed like the weasel; is generally about 16 inches long, and of a sallow color; but his size, and the shades of his color, vary in different parts of the country. Some have spots of yellow on the breast, others of white, and others have none. He keeps in forests, chiefly on trees, and lives by hunting. Found in the northern states.

MINK. The mink is about as large as a martin and of the same

form. The hair on its tail is shorter; its color is generally black; some have a white spot under their throats, others have none; they burrow in the ground, and pursue their prey both in fresh and salt water. Those which frequent the salt water are of a larger size, lighter color, and have inferior fur. They are found in considerable numbers both in the southern and northern states.

Otter. The otter very much resembles the mink in its form and habits. Its color is not so dark; its size much larger, being about 3 feet long and 15 inches in circumference. It lives in holes in banks near the water, and feeds on fish and amphibious animals. Found in all the states.

Fisher. In Canada he is called pekan; in these states frequently the black cat, but improperly, as he does not belong to the class of cats. He is from 20 to 24 inches in length, and 12 in circumference. His tail is little more than half his length; its hair long and bushy. His fore legs about $4\frac{1}{2}$ inches long, his hinder legs 6 inches. His ears short and round. His color is black, except the head, neck, and shoulders, which are a dark grey. He lives by hunting, and occasionally pursues his prey in the water. Found in the northern states

Skunk. This animal is about a foot and a half long, of a moderate height, and size in proportion to his length. His tail is long and bushy; his hair long and chiefly black; but on his head, neck and back is found more or less of white, without any regularity or uniformity. He appears to see but indifferently when the sun shines and therefore in the day time, keeps close to his burrow. As soon as the twilight commences, he goes in quest of his food, which is principally beetles and other insects: He is also very fond of eggs and young chickens. His flesh is said to be tolerable good, and his fat is sometimes used as an emollient. But what renders this animal remarkable is his being furnished with organs for secreting and retaining a liquor, volatile and fetid beyond any thing known, and which he has the power of emitting to the distance of a rod or more, when necessary for his defence. When this ammunition is expended he is quite harmless. This volatile fætor is a powerful antispasmodic. Found in all the states.

Another *stinkard* called the *squash*, is said by Buffon to be found in some of the southern states. He is of a chesnut color; climbs trees and kills poultry.

Opossum. This animal is about a foot and a half long; has a long pointed nose, furnished with long stiff hairs; ears thin and naked; tail naked, nearly as long as the body, and capable of holding the animal suspended; legs short; feet small and naked. He uses his fore paws like a monkey. His body is well covered with a woolly fur, white at the roots and black at the ends. His hair is long, thin, and coarse; its color black and white, forming a grey of various shades; and these different shades are often so intermixed as to give a spotted or variegated appearance. But the most singular part of this animal is a kind of false belly or pouch, with which the female is furnished; it is formed by a duplicate of the skin; is so placed as to include her teats, and has an aperture

which she can open and shut at pleasure. She brings forth her young from four to six at a time, while they are not bigger than a bean; incloses them in this pouch, and they, from a principle of instinct, affix themselves to her teats: Here they remain and are nourished till they are able to run about, and are afterwards taken in occasionally, particularly in times of danger. The opossum feeds on vegetables particularly fruit. He likewise kills poultry, sucks their blood and eats their eggs. His fat is used instead of lard or butter. Found in the southern and middle states.

Woodchuck. (*Monax*, de Buffon.) His body is about 16 inches long, and nearly the same in circumference; his tail is moderately long, and full of hair. His color is a mixture of sallow and grey. He digs a burrow in or near some cultivated field, and feeds on pulse, the tops of cultivated clover, &c. He is generally very fat, excepting in the spring. The young are good meat; the old are rather rank and disagreeable. In the beginning of October they generally retire to their burrows, and live in a torpid state about six months. In many respects he agrees with the *marmot* of the Alps; in others he differs, and on the whole is probably not the same.

An animal resembling the woodchuck is found in the southern states, which is supposed to form another species.

Urchin. The urchin or urson, is about two feet in length, and, when fat, the same in circumference. He is commonly called hedge-hog or porcupine, but differs from both these animals in every characteristic mark, excepting his being armed with quills on his back and sides. These quills are nearly as large as a wheat straw; from 3 to 4 inches long, and, unless erected, nearly covered by the animal's hair. Their points are very hard, and filled with innumerable very small barbs or scales, whose points are raised from the body of the quill. When the urchin is attacked by a dog, wolf, or other beast of prey, he throws himself into a posture of defence, by shortening his body, elevating his back, and erecting his quills. The assailant soon finds some of those weapons stuck into his mouth or other part of his body, and every effort which he makes to free himself, causes them to penetrate the farther; they have been known to bury themselves entirely in a few minutes. Sometimes they prove fatal; at other times they make their way out again through the skin from various parts of the body. If not molested, the urchin is an inoffensive animal. He finds a hole or hollow, which he makes his residence, and feeds on the bark and roots of vegetables. His flesh in the opinion of *hunters*, is equal to that of a sucking pig. Is found in the northern states.

Hare. Of this animal we have two kinds: The one is commonly called the white rabbit or cony; the other simply the rabbit; but from the proportional length of their hinder legs, and other specific marks, they both belong to the family of the hare. The former has a covering of coarse white hair, which comes on before the winter, and falls off the ensuing spring. He is about half the size of a large European hare, and twice as large as the other kind. The latter burrows in the ground, like a rabbit. They are both found in the same tract of country, but have not been known to as-

sociate. The former is found in the northern states, and appears to be the same as the hare of the northern part of Europe; the latter is found in all the states, and is probably a species peculiar to America.

Racoon. The racoon, in the form and size of his body, resembles the fox; his legs are larger and shorter. His toes are long, and armed with sharp claws. His body is grey; his tail annulated with alternate rings of black and brown. In his manners he resembles the squirrel; like him he lives on trees, feeds on Indian corn, acorns, &c. and serves himself with his fore paws. In the northern states he is said to betake himself to a hollow tree, or some hole, and lie torpid during the winter. His flesh is good meat, and his fur is valued by the hatters. He is found in all the climates in the temperate zone in North-America.

The Fox Squirrel. Of this animal there are several varieties, black, red, and grey. It is nearly twice as large as the common grey squirrel. Found in the southern states, and is peculiar to this continent.

The Grey Squirrel of America does not agree exactly with that of Europe, but is generally considered as of the same species. Its name indicates its general color; but some are black; and others black on the back, and grey on the sides. They make a nest of moss in a hollow tree, and here they deposite their provision of nuts and acorns; this is the place of their residence during the winter, and here they bring forth their young. Their summer house, which is built of sticks and leaves, is placed near the top of a tree. They sometimes migrate in considerable numbers. If in their course they meet with a river, each of them takes a shingle, piece of bark, or the like, and carries it to the water; thus equipped they embark, and erect their tails to the gentle breeze, which soon wafts them over in safety; but a sudden flaw of wind sometimes produces a destructive shipwreck. The greater part of the males of this species are found castrated.

A grey squirrel is found in Virginia, nearly twice as large as this. Whether it be the same, or a different species, is uncertain.

The Red Squirrel is less than the grey squirrel. It has a red list along its back; grey on its sides, and white under its belly. It differs in some respects from the common European squirrel; but M. de Buffon considers it as the same species. Its food is the same as that of the grey squirrel, except that it sometimes feeds on the seeds of the pine and other evergreens; hence it is sometimes called the pine squirrel, and is found further to the northward than the grey squirrel. It spends part of its time on trees in quest of food; but considers its hole, under some rock or log, as its home.

The Striped Squirrel is still less than the last mentioned. Its color is red. It has a stripe of black along its back; at the distance of about half an inch, on each side, is a stripe of white, bordered with very narrow stripes of black. Its belly is white. In the males, the colors are brighter and better defined than in the females. Found in the northern and middle states.

Flying Squirrel. This is the least of the class of squirrels. It is of a reddish grey on the body, and white under the belly. A

duplicature of the skin connects the fore and hinder legs together; by extending this membrane it is able to leap much farther, and to alight with more safety than other squirrels. Its tail, likewise, which is flat, serves to direct and assist its course. When it undertakes to fly from one tree to another, at some rods distance, it mounts to a sufficient height, and then darts in a right line to its object, forming in its descent an angle with the horizon of about 45°. Its eyes are large and prominent; and it appears not to see well when the sun shines; by day, therefore, it generally lies concealed; but in the evening is very brisk and lively. It lives in the holes of trees, and feeds on seeds, nuts, and grain. Is found in all the states, and in the north of Europe.

Field Mouse. The color of this animal is a reddish brown on the body, and a dirty white under the belly. Compared with the house mouse his body is somewhat longer, and considerably larger. His tail is larger and shorter. He lives in fields among the grass, and appears quite inoffensive.

Ground Mouse. This animal is larger than the field mouse, but similar in form, excepting that the nose is more blunt. His color nearly resembles a slate on the body, lighter under the belly. They form burrows under the ground, and often destroy young fruit trees in the winter by eating their bark; in fields and meadows, it feeds on the roots of grass, sometimes leaving a groove in the sward, which appears as if it had been cut out with a gouge. In woods they are said to feed on acorns, and to lay up a large store of them in their burrows.

Bat. The bat very much resembles the field mouse in form and size; but is so enormously extended, that being connected together by a thin membrane they furnish the animal with wings. They frequent the cavities of old buildings, from whence they issue in the twilight, and feed, on the wing, upon the insects which are then to be found flying. In the day time they keep themselves concealed, and become torpid during the winter. Common to North-America and Europe.

Wood Rat. "This is a very curious animal; not half the size of the domestic rat; of a dark brown or black color; their tails slender and short in proportion, and covered thinly with short hair. They are singular with respect to their ingenuity and great labour in constructing their habitations, which are conical pyramids, about 3 or 4 feet high, constructed with dry branches, which they collect with great labour and perseverance, and pile up without any apparent order; yet they are so interwoven with one another, that it would take a bear or wild cat some time to pull one of these castles to pieces, and allow the animals sufficient time to retreat with their young.

"There is likewise a ground rat, twice as large as the common rat, which burrows in the ground." *Bartram's Travels.*

American Rat. This animal has a long, naked, and scaly tail: the head is long shaped, with a narrow pointed nose, the upper jaw being much larger than the lower; the ears are large and naked. Its color is of a deep brown inclining to ash on the belly; and the fur

is coarse and harsh. It is probably this species which is said (Kalm's Trav. II. 48) to live among the stones and clefts of rocks, in the blue mountains of Virginia, at a distance from the peopled part of the country, which comes out only at night and makes a terrible noise. *Encyc. Brit.*

SHREW MOUSE. This is the smallest of quadrupeds, and holds nearly the same place among them as the humming bird does among the feathered race. Some of the European shrew mice, are three inches long: we have seen but two or three of the American, and those dried; but should not judge that those ever exceeded 2 inches. Their head, which constitutes above one third of their whole length, has some resemblance to that of a mole; the ears are wanting; their eyes scarcely visible; the nose very long, pointed and furnished with long hairs. In other respects they resemble the common mouse. They live in woods, and are supposed to feed on grain and insects. Found in New-England.

MOLE. The purple mole is found in Virginia; the black mole in New-England, living in and about the water: They differ from one another, and from the European.

The WATER RAT is about the the size of the common rat; brown on the back and white under the belly; feeds on aquatic animals.

BEAVER. The beaver is an amphibious animal, which cannot live for any length of time in the water; and can exist without it, provided he has the convenience of sometimes bathing himself. The largest beavers, formerly were found four feet in length, and weighed 50 or 60 pounds. At present they are not more than three feet in length, and may weigh from 25 to 30 pounds. The head of this animal is large, and his ears short and round. Their fore teeth are prominent, long, broad, strong and grooved or hollowed like a gouge. Their fore legs are short, with toes separate; their hinder legs are long, with toes webbed. The tail is large, broad, and scaly, resembling the body of a fish. Their color is generally a dark brown, but varies according to the climate they inhabit. Their hair is long and coarse; the fur very thick, fine and highly valued. The castor used in medicine is found in sacs formed behind the kidneys.

Their houses are always situated in the water; sometimes they make use of a natural pond, but generally they choose to form one by building a dam across some brook or rivulet. For this purpose they select a number of saplings, of soft wood, generally of less than 6 inches in diameter, but sometimes of 16 or 18 inches; these they fell, and divide into proper lengths, and place them in the water, so that the length of the sticks make the width of the dam. These sticks they lay in mud or clay, their tails serving them for trowels, as their teeth did for axes. These dams are six or eight feet thick at bottom; sloping on the side opposed to the stream; and are about a quarter as broad at top as at bottom. Near the top of the dam they leave one or more waste ways, or sliding places to carry off the surplus water.

The formation of their cabins is no less remarkable. They consist of two stories, one under, the other above water. They are shaped like the oval bee-hive; and of a size proportioned to the

number of inhabitants. The walls of the lower apartment are two or three feet thick, formed like their dams; those of the upper story are thinner, and the whole on the inside plastered with mud. Each family constructs and inhabits its own cabin. The upper apartments are curiously strewed with leaves, rendered neat, clean and comfortable. The winter never surprizes these animals before their business is completed; for their houses are generally finished by the last of September, and their stock of provisions laid in, which consists of small pieces of wood deposited in the lower apartments. Before a storm all hands are employed in repairing or strengthening their dams. They retain this industrious habit even after they are domesticated. In summer they roam abroad and feed on leaves, twigs, and food of that kind. These beavers are considered as the same species as those in Europe, but are vastly superior to them in every respect.

There is likewise a race of beavers, called *terriers*, who dig holes and live a solitary unsocial life. These are probably savages, who have never formed themselves into societies, consequently have not made those improvements, which are to be acquired only in a social state. Found in all the states.

The Musquash or Musk Rat, is about 15 inches in length, and a foot in circumference. His tail is nearly a foot long; his hair very short; the color on his back dark; on his sides generally reddish; his head and tail very much resemble those of a rat. This animal is furnished with glands, which separate a substance that has the smell of musk. In his mode of living, he is a distant imitator of the beaver: builds a rude cabin in shallow water, and feeds on vegetables. Found in the northern and middle states.

The Morse or Sea Cow, more properly called the sea elephant, has two large ivory tusks, which shoot from the upper jaw: Its head also is formed like that of the elephant, and would entirely resemble it in that part if it had a trunk; but the morse is deprived of that instrument, which serves the elephant in place of an arm and hand, and has real arms. These members, like those of the seal, are shut up within the skin, so that nothing appears outwardly but its hands and feet. Its body is long and tapering, thickest towards the neck; the toes and hands, or feet, are covered with a membrane, and terminated by short and sharp-pointed claws. Excepting the two great tusks, and the cutting teeth, the morse perfectly resembles the seal; it is only much larger and stronger, the morse being commonly from twelve to sixteen feet in length, and eight or nine in circumference; whereas the largest seals are no more than seven or eight feet long.

The Seal, of which there are several species, is an amphibious animal, which lives the greater part of the time in the sea, and feeds on marine plants. The morse and seal formerly frequented our northern shores; but at present have nearly forsaken them.

Manati. This animal forms the connecting link between beasts and fishes. It is a very clumsy mis-shapen animal, with a head thicker than that of an ox; eyes small; and the two feet are placed near the head, for the purpose of swimming. It is of sufficient size

to form a load for two oxen. Its flesh, which is more like beef than fish, is said to be excellent for eating. They are about 15 feet long, and six broad. As this animal has only fore feet, it has obtained the name of *Manati*, i. e, "an animal with both hands." This animal has been found in the rivers which run from Georgia into the Gulf of Mexico.

SAPAJOU. SAGOIN. There are various species of animals said to inhabit the country on the lower part of the Missisippi, called sapajous and sagoins. The former are capable of suspending themselves by their tails: the latter are not. They have a general resemblance to monkeys; but are not sufficiently known, to be particularly described.

Birds. Several catalogues of birds in the southern and middle states, have been published by different authors; and one, of those in New Hampshire, by Dr. Belknap; but no general catalogue of the birds in the American states has yet appeared. The following catalogue, which claims to be the most full and complete of any yet published, though far from perfection, has been carefully selected from Bartram's travels, Jefferson's Notes on Virginia, Belknap's History of New-Hampshire, and a Manuscript furnished by Dr. Cutler. Bartram's catalogue, as far as it extends, appears to be the most accurate and complete, and his mode of arrangement the most natural and intelligible: I have therefore adopted it, and inserted his notes and references.

*Popular Names.**	*Bartram's Designation.*
The OWL.	STRIX.
† Great White Owl	Strix arcticus, corpore toto nivco
¶ Great Horned Owl	Strix pythaules, corpore rufo
† Great Horned White Owl	Strix maximus, corpore nivco
§ Horned Owl	Strix bubo? Peck.
¶ Whooting Owl	Strix acclamator, corpore grifeo
† Sharp Winged or Speckled Owl	Strix perigrinator, corpore versicolore Strix aluco. Cutler. Belknap.

* The birds to whose names, in this catalogue, these marks [* † ‡ ‖ ¶] are prefixed are land birds, which, according to Bartram, are seen in Pennsylvania, Maryland, Virginia, North and South-Carolina, Georgia and Florida, from the sea coast westward to the Apalachian mountains, viz.

* These arrive in Pennsylvania in the spring, from the south; and after building their nests and rearing their young, return southward in autumn.

† These arrive in Pennsylvania in autumn, from the north, where some of them continue during the winter; others continue their journey as far south as Florida. They return northward in the spring, probably to breed and rear their young.

‡ These arrive, in the spring, in Carolina and Florida, from the south; breed and rear their young, and return again to the south at the approach of winter. These never migrate so far north as Pennsylvania.

‖ These are natives of Carolina, Georgia, and Florida; where they breed and continue the year round.

¶ These breed and continue the year round in Pennsylvania.

§ These are peculiar to New-England, and almost all the two first classes and some of the third are found in the eastern states.

Popular Names.	*Bartram's Designation.*
¶ Little Screech Owl	Strix asio, corpore ferruginio
§ Barn Owl	Strix passeri. Cutler. Belknap.
The VULTURE.	VULTUR.
‖ Turkey Buzzard	Vultur aura
‖ White Tailed Vulture	Vultur sacra
‖ Black Vulture, or Carrion Crow	Vultur atratus
EAGLE and HAWK.	FALCO.
¶ Great Grey Eagle	Falco regalis
¶ Bald Eagle	Falco leucocephalus
* Fishing Eagle	Falco piscatorius
¶ Great Eagle Hawk	Falco Aquilinus, caudaferruginio
¶ Hen Hawk	Falco gillinarius
¶ Chicken Hawk	Falco pularius
* Pigeon Hawk	Falco columbarius
¶ Black Hawk	Falco niger
* Marsh Hawk	Falco ranivorous
* Sparrow Hawk, or Least Hawk	Falco sparvenius
§ Brown Eagle	Falco fulvus. Belknap.
§ Large Brown Hawk	Falco hudsonius? Belknap.
§ Pigeon Hawk	Falco subbuteo. Peck.
§ Fish Hawk	Falco haliætus. Peck.
§ Bird Hawk	Lanius canadensis. Belk. Cutl.
KITE HAWK.*	MILVUS.
‖ Forked Tail Hawk, or Kite	Falco furcatus
‖ Sharp Winged Hawk, of a pale, sky blue color, the tip of the wings black	Falco glaucus
‖ Sharp Winged Hawk, of a dark or dusky blue color	Falco subcerulius
‖ Parrot of Carolina, or Parrakeet	Psitticus Caroliniensis
The CROW kind.	CORVUS.
* The Raven	Corvus carnivorus
‖ Great Sea side Crow or Rook	Corvus maritimus
¶ Common Crow	Corvus frugivorus
§ Royston Crow	Corvus cornix. Cutler.
¶ Blue Jay	Corvus cristatus, pica glandaria
‖ Little Jay of Florida	Corvus Floridanus, pica glandaria minor
¶ Purple Jackdaw or Crow-Blackbird	Gracula quiscula
* Lesser purple Jackdaw	Gracula purpurea
* Cuckoo of Carolina	Cuculus Caroliniensis
Whet Saw	Cuculus. Carver.
WOOD-PECKERS.	PICUS.
‖ Greatest Crested Woodpecker, having a white back	Picus principalis

* Kite hawks are characterized by having long sharp pointed wings; being of swift flight; sailing without clapping their wings; having long, light bodies; and feeding out of their claws, on the wing.

Popular Names.	*Bartram's Designation.*
* Great Red Crested Black Woodpecker	Picus pilcatus
* Red Headed Woodpecker	Picus erythrocephalus
* Gold Winged Woodpecker	Picus auratus
Ivory Woodpecker	Picus eburneus
¶ Red Bellied Woodpecker	Picus Carolinus
¶ Least Spotted Woodpecker	Picus pubescens
¶ Hairy, Speckled and Crested Woodpecker	Picus villosus
¶ Yellow Bellied Woodpecker	Picus varius
§ Swallow Woodpecker	Picus hirundinaceus. Cutler.
§ Speckled Woodpecker	Picus maculosus. Cutler.
¶ Nuthatch	Sitta capite nigro. Catesby.
† Small Nuthatch	Sitta capite fusco. Catesby.
† Little brown variegated Creeper	Certhia rufa
* Pine Creeper	Certhia pinus
* Blue and White pied Creeper	Certhia picta
* Great Crested King Fisher	Alcedo alcyon
* Humming Bird	Trochilus colubris
* Little Grey Butcher Bird of Pennsylvania	Lanius griseus
* Little Black Capped Butcher	Lanius garrulus
* King Bird	Lanius tyrannus
* Pewit, or Black Cap Fly Catcher	Muscicapa nunciola
* Great Crested, Yellow Bellied Fly Catcher	Muscicapa cristata
* Lesser Pewit, or Brown and Greenish Fly Catcher	Muscicapa rapax
† Little Olive colored Fly Catcher	Muscicapa subviridis
* Little Domestic Fly Catcher, or Green Wren	Muscicapa cantacrix
* Red Eyed Fly Catcher	Muscicapa sylvicola
* Turtle Dove of Carolina	Columba Caroliniensis
‖ Ground Dove	Columba passerina
† Wild Pigeon	Columba migratoria
* Great Meadow Lark	Alauda magna
† Sky Lark	Alauda campestris, gutture flavo
† Little Brown Lark	Alauda migratoria, corpore toto ferruginio
Marsh Black Bird, or Red Winged Black Bird	Sturnus niger alis superene rubentibus. Catesby.
¶ Robin Red Breast. Field Fare	Turdus migratorius*
* Fox colored Thrush	Turdus rufus
* Mocking Bird	Turdus Polyglottus
* Wood Thrush	Turdus Melodes
* Least Golden Crown Thrush	Turdus minimus, vertice aurio

* *Turdus migratorius* is not our common Robin Red-Breast or Whistling Robin, which is a bird peculiar to this country. *Dr. Waterhouse.*

Popular Names.	*Bartram's Designation.*
§ Cross Bill	Loxia curvi rostra? Belknap.
§ Cherry Bird	Ampelis garrulus. Cutler.
* Baltimore Bird, or Hang Nest	Oriolus Baltimore
* Goldfinch or Icterus Minor	Oriolus spurius
* Sand Hill Red Bird of Carolina	Merula flammula
* Summer Red Bird	Merula Marilandica
* Yellow Breasted Chat	Garrulus australis
* Cat Bird or Chicken Bird	Lucar lividus, apice nigra Muscicapa vertice nigro. Cat.
¶ Crown Bird or Cedar Bird	Ampelis garrulus

GRANIVOROUS TRIBES.

¶ Wild Turkey	Meleagris Americanus Gallopavo sylvestris. Catesby.
¶ Pheasant of Pennsylvania, or Partridge of New-England	Tetrao tympanus
¶ Mountain Cock or Grous Ptarmigan. *(Mitchill.)*	Tetrao lagopus
¶ Quail or Partridge	Tetrao minor, s. coturnix
¶ Red Bird, Virginia Nightingale	Loxia cardinalis
† Cross Beak	Loxia restro forsicator
* Blue Cross Beak	Loxia cærulea
* Rice Bird.* Boblincoln	Emberiza oryzivora
‡ Blue or Slate colored Rice Bird	Emberiza livida
* Pied Rice Bird.*	Emberiza varia
‡ Painted Finch, or Nonpareil	Linaria ciris
§ Red Linnet	Tanagra rubra
* Blue Linnet	Linaria cyanea
¶ Goldfinch. Yellow Bird (*Cut.*) or Lettuce Bird	Carduelus Americanus Fringilla tristis. Linn.
† Lesser Goldfinch	Carduelus pinus
† Least Finch	Carduelus pusilus
* Towhe Bird, Pewee, Cheeweeh	Fringilla erythrophthalma Passer nigris occulis rubris. Catesby.
† Purple Finch	Fringilla purpurea
§ Spring Bird	Fringilla. Cutler.
† Hemp Bird	Fringilla canabina
§ Winter Sparrow	Fringilla grisea. Cutler.
† Red, Fox colored, Ground or Hedge Sparrow	Fringilla rufa
† Large, Brown, White Throated Sparrow	Fringilla fusca
* Little House Sparrow, or Chipping Bird	Passer domesticus
* Reed Sparrow	Passer palustris

* The rice bird and pied rice bird are generally supposed to be male and female of the same species; the pied rice bird the male, and the other the female. Called in New-England Boblincoln, Conquedle; and by some Old-England Black Bird.

Popular Names.	*Bartram's Designation.*
* Little Field Sparrow	Passer agrestis
† Snow Bird	Passer nivalis
* May Bird	Calandra pratensis
* Red winged Starkling, or Corn Thief	Sturnus predatorius
* Cowpen Bird	Sturnus stercorarius Passer fuscus Catesby.
* Blue Bird	Motacilla sialis Rubicula Americana cærulea. Catesby.
* Water Wagtail	Motacilla fluviatilis
* House Wren	Motacilla domestica. (regulus rufus)
¶* Marsh Wren	Motacilla palustris, regulus minor
* Great Wren of Carolina—Body dark brown, throat and breast pale clay color	Motacilla Caroliniana. (regulus magnus.)
§ Grape Bird	Motacilla icterocephala. Cutler.
* Little Bluish Grey Wren	Regulus griseus
† Golden Crown Wren	Regulus cristatus
† Ruby Crown Wren (*Edwards.*)	Regulus cristatus. Alter vertice rubini coloris
* Olive colored, Yellow Throated Wren	Regulus peregrinus, gutture flavo
* Red Start	Ruticilla Americana
* Yellow hooded Titmouse	Luscinia, s. philomela Americana
* Bluish Grey crested Titmouse	Parus cristatus
¶ Black Cap Titmouse	Parus Europeus
* Summer Yellow Bird	Parus luteus
* Yellow Rump	Parus cedrus, europygio flavo
§ Tom Teet	Parus atricapillus. Cutler.
* Various colored Little Finch Creeper	Parus varius
* Little chocolate breast Titmouse	Parus peregrinus
* Yellow Red Pole	Parus aureus, vertice rubro
* Green Black Throated Fly Catcher	Parus viridis, gutture nigro
* Golden Winged Fly Catcher	Parus alis aureis
* Blue Winged Yellow Bird	Parus aureus alis ceruleis
* Yellow Throated Creeper	Parus griccus gutture luteo
* House Swallow, or Chimney Swallow	Hirundo pelasgia, cauda aculeata
* Great Purple Martin	Hirundo purpurea
* Bank Martin, or Swallow	Hirundo riparia, vertice purpurea
§ White Bellied Swallow	Hirundo——
§ Barn Swallow	Hirundo subis. Cutler.
‡ Great Bat, or Chuckwill's Widow, or Goat Sucker	Caprimulgus lucifugus

Popular Names.	*Bartram's Designation.*
* Whip-poor-will*	Caprimulgus minor Americanus. Catesby. Caprimulgus Europeus. Cutl.
* Night Hawk	Caprimulgus Americanus. Cutl.

AMPHIBIOUS or AQUATIC BIRDS, or such as obtain their food from, and reside in the water.

The CRANE.	GRUS.
‖ Great Whooping Crane	Grus clamator, vertice papilloso corpore niveo, remigibus nigris
‡ Great Savannah Crane	Grus pratensis, corpore cinereo vertice papilloso
The HERON.	**ARDEA.**
¶ Great Bluish Grey crested Heron	Ardea Herodias
* Great White River Heron	Ardea immaculata
§ Crane	Ardea camadensis. Cutler.
* Little White Heron	Ardea alba minor
§ Stork	Ardea ciconia. Cutler.
‡ Little crested Purple or Blue Heron	Ardea purpurea cristata
* Grey White crested Heron	Ardea varra cristata
‡ Speckled crested Heron, or Crab Catcher	Ardea maculata cristata
* Marsh Bittern, or Indian Hen	Ardea migitans Ardea stellaris Americana. Cat.
* Quaw Bird, or Frog Catcher	Ardea clamator, corpore sub ceruleo
‡ Little Brownish spotted Bittern	Ardea subsusca stellata
‡ Crested Blue Bittern, called Poor Job	Ardea violacea
* Green Bittern. Poke. Skouk	Ardea virescens
* Lesser Green Bittern	Ardea virescens minor
* Least Brown and Striped Bittern	Ardea parva
* Spoon Bill; seen as far north as the river Alatamaha	Platalea ajaja
The WOOD PELICAN.	**TANTALUS.**
‡ Wood Pelican	Tantalus loculator
‡ White Curlew	Tantalus alber
‡ Dusky and White Curlew	Tantalus fuscus
‖ Crying Bird, beautifully speckled	Tantalus pictus, (Ephouskyka Indian)
‖ Grannet, perhaps little different from the Ibis	Tantalus Ichthyophagus
‖ White Godwit	Numenius, alba varia
¶ Great Red Breasted Godwit	Numenius pectore rufo
¶ The greater Godwit	Numenius Americana
¶ Red Shark, or Pool Stripe	Numenius fluvialis
¶ Great sea coast Curlew	Numenius magnus rufus

* Bartram considers the whip-poor-will and the night hawk as the same bird

Popular Names.	*Bartram's Designation.*
* Lesser field Curlew	Numenius minor campestris
¶ Sea side lesser Curlew	Numenius cinereus
* Great Red Woodcock	Scolaphax Americana rufa
Wood Snipe	Scolaphax fedoa. Cutler.
* Meadow Snipe	Scolaphax minor arvensis
* Red Coot Footed Tring	Tringa rufa
* White Throated, Coot Footed Tring	Tringa cinerea, gutture albo
* Black Cap, Coot Footed Tring	Tringa vertice nigro
¶ Spotted Tring. Rock Bird	Tringa maculata
¶ Little Pond Snipe	Tringa griseus
¶ Little Brown Pool Snipe	Tringa fusca
¶ Little Trings of the sea shore. Sand Birds	Tringa parva
Ox Eye	Tringa sulicaria ? Cutler.
§ Humility	Tringa interpres ? Cutler.
* Turnstone or Dotrill	Morinella Americana
† Wild Swan	Cygnus ferus
† Canadian Goose	Anser Canadensis
† Blue Winged Goose	Anser aleis cæruleis
† Laughing Goose	Anser fuscus maculatus
† White Brant Goose	Anser branta, corpore albore, remigibus nigris
† Great parti-colored Brant or Grey Goose	Anser branta, grisea maculata
† Great Wild Duck. Duck and Mallard	Anas fera torquata, major, caput et collum veridi splendentis, dorsum griseo fuscum, pectore rufuscente, speculum violacrum
† Great Black Duck	Anas nigra maxima
† Bull Neck or Buffaloe Head Quindar	Anas bucephala
† Blue Bill	Anas subcerulea
† Black White Faced Duck	Anas leucocephala
§ Wood Duck	Anas arborea
† Sprigtail Duck	Anas caudacuta
† Little Brown and White Duck	Anas rustica
† Various colored Duck, his breast and neck as though ornamented with chains of beads	Anas principalis, maculata
† Little Black and White Duck called Butter Back	Anas minor picta
Sea Duck	Anas molissima. Cutler.
Sea Pigeon	Anas histrionica ? Cutler.
§ Old Wife	Anas hyemalis. Peck. Anas strepera ? Cutler.
† Blue Winged Shoveller	Anas Americanus lato rostro. Catesby.
§ Dipper	Anas albeola. Cutler.

Popular Names.	*Bartram's Designation.*
TEAL.	QUERQUIDULÆ.
* Summer Duck	Anas sponsa
† Blue Winged Teal	Anas discors
† Least Green Winged Teal	Anas migratoria
* Whistling Duck	Anas fistulosa
† Great Fishing Duck	Mergus major pectore rufo
† Round crested Duck	Mergus cucultatus
* Eel Crow	Colymbus Migratorius
|| Great Black Cormorant of Florida, having a red beak	Colymbus Floridanus
|| Snake Bird of Florida	Colymbus colubrinus, cauda elongata
¶ Great Black and White Pied Diver, or Loon	Colymbus musicus
† Large Spotted Loon, or Great Speckled Diver	Colymbus Glacialis. Peck, Colymbus articus
¶ Little Eared Brown Dobchick	Colymbus auritus et cornutus
¶ Little crested Brown Dobchick	Colymbus minor fuscus
§ Dobchick or Notail	Colymbus podiceps. Peck.
§ Cream colored Sheldrake	Mergus merganser? Cutler.
§ Red Bellied Sheldrake	Mergus serrator? Cutler.
§ Pied Sheldrake	Mergus castor? Cutler.
§ Penguin	Alea impennis. Cutler.
§ Water Hen	Alea arctica? Cutler.
§ Murr	Alea torda. Peck.
§ Petteril	Procellaria pelagica. Peck.
‡ Tropic Bird	Phæton ætherius
¶ Great White Gull	Larus alber
¶ Great Grey Gull	Larus griseus
¶ Little White River Gull	Larus alba minor
§ Mackerel Gull	Larus ridibundus. Cutler.
§ Fishing Gull	Sterna minuta. Cutler.
‡ Sea Swallow or Noddy	Sterna stolida
§ Sea Sucker	Petromyzon marinus. Peck.
|| Pintado Bird	Petrella pintado
§ Thornback	Raja fullonica? Peck.
¶ Shear Water or Razor Bill	Rynchops niger
‡ Frigate or Man of War Bird	Pelicanus aquilus
‡ Booby	Pelicanus sula
§ Shag	Pelicanus graculus. Cutler.
Pelican of the Missisippi, whose pouch holds 2 or 3 quarts	Pelicanus——
|| American Sea Pelican	Onocratalus Americanus
The PLOVER KIND.	CHARADRIUS.
* Kildee or Chattering Plover	Charadrius vociferus
* Great Spotted Plover	Charadrius maculatus
* Little sea side Ring Necked Plover	Charadrius minor
* Will Willet or Oyster Catcher	Hematopus ostrealegus

Popular Names.	*Bartram's Designation.*
‖ Great Blue or slate colored Coot	Fulica Floridana
§ White Head Coot	Anas spectabilis. Cutler.
§ Brown Coot	Anas fusca. Cutler.
* Soree. Brown Rail. Widgeon	Rallus Virginianus
‡ Little Dark Blue Water Rail	Rallus aquaticus minor
* Greater Brown Rail	Rallus rufus
‖ Blue or slate colored Water Rail of Florida	Rallus major subceruleus
§ Peep	Rallus Carolinus. Cutler.
* Flamingo; seen about the point of Florida; rarely as far north as St. Augustine	Phœnicopterus ruber

Besides these, the following have not been described or classed, unless they are contained, under different names, in the above catalogue.

Sheldrach or Canvas Back	Blue Peter
Ball Coot	Water Wagtail
Water Witch	Wakon Bird
Water Pheasant	Prairie Hen
Mow Bird	

The birds of America, says Catesby, generally exceed those of Europe in the beauty of their plumage, but are much inferior to them in the melody of their notes.

The middle states, including Virginia, appear to be the climates, in North-America, where the greatest number and variety of birds of passage celebrate their nuptials and rear their offspring, with which they annually return to more southern regions. Most of our birds are birds of passage from the southward. The eagle, the pheasant, grous and partridge of Pennsylvania, several species of woodpeckers, and crows, blue jay, robin, marsh hen, several species of sparrows or snow birds, and the swallow, are perhaps nearly all the land birds that continue the year round to the north of Virginia.

Very few tribes of birds build or rear their young in the south or maritime parts of Virginia, in Carolina, Georgia and Florida; yet all those numerous tribes, particularly of the soft billed kind, which breed in Pennsylvania, pass, in the spring season, through these regions in a few weeks time, making but very short stages by the way; and again, but few of them winter there on their return southwardly.

It is not known how far to the south they continue their rout during their absence from the northern and middle states.

"The Swan (*Cygnus ferus*) is the largest of the aquatic tribe of birds which is seen in this country. One of them has been known to weigh 36lb. and to be six feet in length, from the bill to the feet, when stretched. It makes a noise resembling that of a trumpet, both when in the water and on the wing." *Belknap.*

The Canadian Goose (*Anser canadensis*) is a bird of passage, and gregarious. The offspring of the Canadian and common goose

are mongrels, and reckoned more valuable than either of them singly, but do not propagate.

The PTARMIGAN *(Tetrao lagopus)* ordinarily inhabits the colder climates about Hudson's Bay, but is sometimes driven, through want of food, to the more northern latitudes. Their feathers are mostly white, covered with down quite to the nails, and their flesh black, and of an exquisite relish.

Probably this is a different bird from Bartram's mountain cock or grous, though both have the same Linnæan name.

The QUAIL or PARTRIDGE *(Tetrao minor, s. coturnix.)* This bird is the *Quail* of New-England, and the *Partridge* of the southern states; but is properly neither. It is a bird peculiar to America. The partridge of New-England *(Tetrao tympanus)* is the *Pheasant* of Pennsylvania, but is miscalled in both places. It is a species of the grous. Neither the pheasant, partridge, or quail are found in America.

CUCKOO *(Cuculus Carolinensis)* These birds are said not to pair like the rest of the feathered tribes. When the female appears on the wing, she is often attended by two or three males.

The WAKON BIRD, which probably is of the same species with the Bird of Paradise, receives its name from the idea the Indians have of its superior excellency; the wakon bird being, in their language, the bird of the Great Spirit. It is nearly the size of a swallow, of a brown color, shaded about the neck with a bright green. The wings are of a darker brown than the body. Its tail is composed of four or five feathers, which are three times as long as his body, and which are beautifully shaded with green and purple. It carries this fine length of plumage in the same manner as the peacock does his, but it is not known whether, like him, it ever raises it to an erect position.

The WHETSAW is of the cuckoo kind, being, like that, a solitary bird and scarcely ever seen. In the summer months it is heard in the groves, where it makes a noise, like the filing of a saw, from which circumstance it has received its name. *Carver.*

The HUMMING BIRD *(Trochilus colubris)* is the smallest of all the feathered inhabitants of the air. Its plumage surpasses description. On its head is a small tuft of jetty black; its breast is red; its belly white; its back, wings and tail of the finest pale green; small specks of gold are scattered over it with inexpressible grace; and to crown the whole, an almost imperceptible down softens the several colors, and produces the most pleasing shades. They are of two kinds, one has a curved, the other a straight bill.

Amphibious Reptiles. Among these are the mud tortoise or turtle (Testudo denticulata) Speckled land tortoise (Testudo carolina.) Great soft shelled tortoise of Florida (Testudo naso cylindracea elongato, truncato. Bartram.) When full grown it weighs from 30 to 40 pounds, (some say 70 pounds) extremely fat and delicious food. Great land tortoise, called gopher; its upper shell is about 18 inches long, and from 10 to 12 broad. Found south of Savannah river.

Two species of fresh water tortoises inhabit the tide water rivers in the southern states; one is large, weighing from ten to twelve

pounds, the back shell nearly of an oval form; the other species small; but both are esteemed delicious food. The tortoises of the northern states are of several species, but have not been scientifically designated.

Of the frog kind *(Ranæ)* are many species. The toad *(Ranæ bufo ?)* several species—the red, brown and black. The former are the largest; the latter the smallest. Pond frog *(Rana ocellata.)* Green fountain frog *(Rana esculanta.)* Tree frog *(Rana muculata.)* Bull frog *(Rana boans)* Besides these are the dusky brown spotted frog of Carolina, 8 or 9 inches long from the nose to the extremity of the toes; their voice resembles the grunting of a swine. The bell frog, so called because their voice is fancied to be exactly like that of a loud cow bell. A beautiful green frog, whose noise is like the barking of little dogs or the yelping of puppies. A less green frog, whose notes resemble those of young chickens. Little grey speckled frog, which makes a noise like the striking of two pebbles together under the surface of the water. There is yet an extremely diminutive species of frogs, called, by some Savannah crickets, whose notes are not unlike the chattering of young birds or crickets. They are found in great multitudes, after plentiful rains, in all the states.

Of lizards *(Lacertæ)* we have also many species. The alligator, or American crocodile, is a very large, ugly, terrible creature, of prodigious strength, activity, and swiftness in the water. They are from 12 to 23 feet in length; their bodies are as large as that of a horse, and are covered with horny plates or scales, said to be impenetrable to a rifle ball, except about their heads and just behind their fore legs, where they are vulnerable; in shape they resemble the lizard. The head of a full grown alligator is about three feet long, and the mouth opens nearly the same length. The eyes are comparatively small, and the whole head, in the water, appears at a distance like a piece of rotten, floating wood.

Besides the alligator, we have of this species of amphibious reptiles the brown lizard *(Lacerta punctata.)* Swift *(Lacerta fusciata ?)* Green lizard, or little green cameleon of Carolina, about 6 or 7 inches long; it has a large, red gill under its throat, and, like the cameleon, has the faculty of changing its color. The striped lizard or scorpion. Blue bellied, squamous lizards, several varieties. Large copper colored lizard. Swift, slender, blue lizard, with a long slender tail, as brittle as that of the glass snake. The two last are rarely seen, but are sometimes found about old log buildings in the southern states.

Serpents. The characters by which serpents are distinguished are these, the belly is furnished with scuta, and the tail has both scuta and scales. Of these reptiles, the following are found in the United States:

Rattle Snake	Crotalus horridus
Yellow Rattle Snake Small Rattle Snake Bastard Rattle Snake	Crotali species.

Moccasin Snake Grey Spotted Moccasin Snake of Carolina	Coluber——
Water Viper, with a sharp thorn tail	Coluber punctatus
Black Viper	Coluber prester
Brown Viper	Coluber luridus
White Bodied Brown Eyed Snake	Coluber atropos
Black Snake with linear rings	Coluber leberis
A Snake with 152 scutæ and 135 scutellæ	Coluber dispas
Bluish Green Snake, with a stretched out triangular snout or Hog-nose Snake	Coluber mycterizans
Copper Bellied Snake	Coluber erythrogaster
Black Snake	Coluber constrictor
White Neck Black Snake	Coluber——
Small Brown Adder	Coluber striatulus
House Adder	Coluber punctatus
Water Adder	Coluber——
Brown Snake	Coluber sipedon
Little Brown Bead Snake	Coluber annulatus
Coach Whip Snake	Coluber flagellum
Corn Snake	Coluber fulvius
Green Snake	Coluber æstivus
Wampum Snake	Coluber fasciatus
Ribbon Snake	
Pine, Horn, or Bull Snake, with a horny spear in his tail	
Joint Snake	
Garter Snake	
Striped Snake	Anguis eryx ?
Chicken Snake	Anguis maculata ?
Glass Snake	Anguis ventralis
Brownish Spotted Snake	Anguis reticulata
Yellowish White Snake	Anguis lumbricalis
Hissing Snake	
Ring Snake	
Two Headed Snake	Amphisbœna

The RATTLE SNAKE (*Crotalus Horridus*) may be ranked among the largest serpents in America. They are from 4 to upwards of 6 feet in length, and from 4 to 6 inches in diameter. Formerly, it is said, they were much larger. Their rattles consist of several reticulated, crustaceous, or rather horny bags, forming their tails, which, when they move, make a rattling noise, warning people of their approach. It is said they will not attack a person unless previously provoked. When molested or irritated, they erect their rattles, and, by intervals, give the warning alarm. If pursued and overtaken, they instantly throw themselves into the spiral coil; their whole body swells through rage, continually rising and falling like

a bellows; their beautiful parti-colored skin becomes speckled and rough by dilatation; their head and neck are flattened; their cheeks swollen, and their lips constricted, discovering their fatal fangs; their eyes red as burning coals, and their brandishing forked tongues, of the color of the hottest flame, menaces a horrid death, They never strike unless sure of their mark. They are supposed to have the power of fascination in an eminent degree; and it is generally believed that they charm birds, rabbits, squirrels and other animals, in such a manner that they lose the power of resistance, and flutter and move slowly, but reluctantly, towards the yawning jaws of their devourers, and either creep into their mouths, or lie down and suffer themselves to be taken and swallowed. This dreaded reptile is easily killed. One well directed stroke on the head, or across the back, with a stick not larger than a man's thumb, is sufficient to kill the largest; and they are so slow of motion that they cannot make their escape, nor do they attempt it, when attacked. Many different remedies for the bite of a rattle snake have been prescribed and used with different success; the following, received from good authority, is recommended as a cure for the bite of all venomous snakes. "Bind a ligature tight round the leg or thigh, above the part bitten, so as to interrupt the circulation; then open or scarify the wound with a lancet, knife or flint, and suck it or let a friend do it; then rub it with any unctuous matter, either animal or vegetable; or if that cannot be procured, make use of salt. Take care to keep the bowels open and free, by drinking sweet oil and milk or cream. If pure honey be at hand, apply it to the wound after opening and sucking it, in preference to any other thing; and eat plentifully of honey and milk."

The bastard rattle snake is of the nature of the asp or adder of the eastern continent; in form and color resembling the rattle snake; is 8 or 10 inches long; and very spiteful and venomous. Like the rattle snake, they throw themselves into a coil; swell and flatten their bodies; continually darting out their heads, and seem capable of springing beyond their length. Found in the southern states.

The moccasin snake is from 3 to 5 feet in length and as thick as a man's leg: when disturbed by an enemy, they throw themselves into a coil, and then gradually raise their upper jaw till it falls back, nearly touching the neck, at the same time vibrating their long purple forked tongue, and directing their crooked poisonous fangs towards their enemy. In this attitude the creature has a most terrifying appearance. It is said, their bite is incurable; but the probability is, that it is not. Like the rattle snake they are slow in their motion, and never bite a person unless provoked. Found in abundance in the swamps and low grounds in the southern states.

The other moccasin snake is about 5 or 6 feet long, and as thick as a man's arm; of a pale grey, sky-colored ground, with brown undulatory ringlets.

The black snake is of various lengths from 3 to 6 feet, all over of a shining black; it is not venomous: is useful in destroying rats and pursues its prey with wonderful agility. It is said that it will

destroy the rattle snake by twisting round it and whipping it to death. It has been reported also that they have sometimes twined themselves round the bodies of children, squeezing them till they die. They are found in all the states.

The coach whip snake is of various and beautiful colors; some parts brown or chocolate, others black, and others white; it is 6 or 7 feet long, and very slender and active; it runs swiftly and is quite inoffensive; but the Indians, it is said, imagine that it is able to cut a man in two with a jerk of its tail. Like the black snake, it will run upon its tail, with its head and body erect.

The pine or bull snake, called also the horn snake, is the largest of the serpent kind known in North-America, except the rattle snake, and perhaps exceeds him in length. They are pied black and white; are inoffensive with respect to mankind, but devour squirrels, rabbits, and every other creature they can take, as food.

The glass snake has a very small head; the upper part of its body is of a color blended brown and green, most regularly and elegantly spotted with yellow. Its skin is very smooth and shining, with small scales, more closely connected than those of other serpents, and of a different structure. A small blow with a stick will separate the body, not only at the place struck, but at 2 or 3 other places, the muscles being articulated in a singular manner, quite through to the vertebra. They are numerous in the sandy woods of the Carolinas and Georgia.

The joint snake, has a skin as hard as parchment, and as smooth as glass. It is beautifully streaked with black and white. It is so stiff, and has so few joints, and those so unyielding, that it can hardly bend itself into the form of a hoop.

The two-headed snake *(Amphisbæna)* has generally been considered as a monstrous production. I am disposed to believe, however, that it is a distinct species of serpents. I have seen one, and received accounts of three others, found in different parts of the United States. One of these was about 8 inches long, and both heads, as to every outward appearance, were equally perfect, and branching out from the neck at an acute angle. It is said, there are three species of the Amphisbœna in Guiana.

The snakes are not so numerous nor so venomous in the northern as in the southern states. In the latter, however, the inhabitants are furnished with a much greater variety of herbs and plants, which afford immediate relief to persons bitten by these venomous creatures. It is an observation worthy of perpetual and grateful remembrance, that wherever venomous animals are found, the God of nature has kindly provided sufficient antidotes against their poison.

Fishes. Fishes form the fourth class of animals in the Linnæan system. Mr. Pennant, in his British Zoology, distributes fish into three divisions, comprehending six orders. His divisions are into *Cetaceous*, *Cartilagenous*, and *Bony*.

CETACEOUS FISH.

The Whale Dolphin Porpoise Grampus Beluga

CARTILAGENOUS.

Lamprey	Brown spotted Gar fish	Red bellied Bream
Skate	Lump fish	Silver or White Bream
Shark	Pipe fish	Yellow Bream
Dog fish	Golden Bream or Sun fish	Black or Blue Bream
Sturgeon		

BONY FISH.*

Eel	Conger Eel	Cat fish
Snake fish	Skip Jack	Minow
Haddock	Pout	Week fish
Cod	Horse Mackerel	King fish
Frost fish	Blue Mackerel	Sole
Pollock	Speckled Mackerel	Mummychog
Small Pollock	Salmon	White fish
Hake	Salmon Trout	Tide Black fish
Sculpion	Trout	Rock Black fish
Plaice	Smelt	Blue fish (Begallo)
Flounder	Pike or Pickerel	Sheep's Head
Hollybut	Atherine	Red Drum
Dab	Mullet	Black Drum
Red Perch	Herring	Branded Drum
White Perch	Carp	Sheep's Head Drum
Yellow Perch	Pond fish	Mossbonker
Sea Perch	Toad fish	Shadine
Whiting	Roach	Porsie
Sea Bass	Shad	Dace
Striped Bass	Hard Head	Anchovy
Shiner	Alewife	Flying fish
Chub	Bret	Sword fish [Frog†
Stickle Back	Sucker	The Angler or Fishing

The WHALE *(Balæna mysticetus)* is the largest of all animals. In the northern seas some are found 90 feet in length; and in the torrid zone, where they are unmolested, whales have been seen 160 feet in length. The head is greatly disproportioned to the size of the body. In the middle of the head are two orifices, through which they spout water to a great height. The eyes are not larger than those of an ox, and are placed towards the back of the head, for the convenience of seeing both before and behind. They are guarded by eyelids as in quadrupeds; and they appear to be very sharp sighted, and quick of hearing. What is called *whale bone* adheres to the upper jaw, and is formed of thin parallel laminæ; some of the longest are 12 feet in length: Of these there are from 350 to 500 on each side, according to the age of the whale. The tail, which alone it uses to advance itself in the water, is broad and semilunar, and when the fish lies on one side, its blow is tremendous.

* Probably some that are placed under this division belong to one or other of the preceding. We are not able accurately to class them.

† This fish is found on the south shore of Long Island, New-York; and is described by Pennant, 3d vol. British Zoology, p. 190.

The Whale louse, Sword fish, and Thresher (a species of *Squalus*) are mortal enemies to the whale, who itself is an inoffensive animal.

Formerly whales were found in plenty upon the coasts of the United States; at present they are scarce. The principal branch of the whale fishery in the United States is carried on from Nantucket. The enterprise of the Nantucket whalemen is remarkable. Not satisfied with the scope which the Atlantic ocean affords them, they have lately proceeded round cape Horn, and penetrated the great Western ocean, in pursuit of whales.

The BELUGA (*Delphinus beluga*) is the fourth and last species of the Dolphin genus. The head is short; nose blunt; eyes and mouth small; in each side of each jaw are 9 teeth, short and rather blunt; those of the upper jaw are bent and hollowed, fitted to receive the teeth of the under jaw, when the mouth is closed; it has pectoral fins, nearly of an oval form; beneath the skin may be felt the bones of five fingers, which terminate at the edge of the fin in five very sensible projections. This brings it into the next rank, in the order of beings, with the *Manati*, which we have already described under the head of animals. Found in the northern parts of the American coasts; particularly in the gulf of St. Lawrence and Hudson's bay.

The Lamprey frequents most of the rivers in the New-England states, especially where the passage is not interrupted by dams.

The amphibious Lobster is found in the small brooks and swamps in the back parts of North-Carolina. In its head is found the eye-stone.

It is proper to mention in this place the *Siren* or *Mud-iguana*. It has gills, fins and two feet; and is in length from 31 to 49 inches. It is an inhabitant of South-Carolina, where it is found in swampy and muddy places by the sides of pools, and under the trunks of old trees that hang over the water, and feeds on serpents. The feet appear like little arms and hands, each furnished with 4 fingers, and each finger with a claw. The head is something like an eel, but more compressed; the eyes are small, and placed as those of the eel are. It is an amphibious animal. The mouth is small in proportion to the length of the body; but its palate and inside of the lower jaw are well provided with many rows of pointed teeth. The skin which is black and full of small scales, resembles shagreen.

Insects. The following catalogues of insects and vermes, except some small additions and the annexed descriptions, are taken from Dr. Belknap's History of New-Hampshire, vol. iii. page 180—183.

Horned Beetle	Scarabæus simson
Carolina Beetle	Scarabæus Carolinus
Dunghill Beetle	Scarabæus stercorarius
Apple Beetle	Scarabæus horticola?
Golden Beetle	Scarabæus lanigerus
	Several new species, and others that have not been arranged

Stag Beetle	Lucanus cervus
Fluted Beetle	Lucanus interruptus
	Dermestes lardarius
	Dermestes typographus
Water Flea	Gyrinus natator
Fetid Beetle	Silpha vespillo
Lady Fly	Coccinella 2—pustulata
	Several species
	Chrysomela—many species
Wheat Fly	
Weevil	Bruchus pisi
Snouted Weevil	Curculio quercus
	Many species
Goat Chaffer	Cerambyx coriarius
	Many species
Fire Fly	Lampyris lucida
	Several species
Skipper	Elater oculatus
	Many species
Glow Worm	Cicendela Carolina
	One or two other species
Cantharides	Bupestris mariana
	Two or three other species
Water Beetle	Dytiscus piceus
	Dytiscus marginalis
	Dytiscus striatus
	Several other species
Black Beetle	Carabus Americanus
	Numerous species
Blossom Eater	Meleo nigra
	Staphylinus maxillosus
	Forsiculo—Two species
Cockroach	Blatta Americana (non indigenus)
Grasshopper, Cricket, Locust	Grillus.—Numerous species
Mole Cricket	Grillus gryllotalpa
Froghopper, Palm Cricket	Cicada.—Many species
Large and small Water Fly	Notanecta
Boat Fly	Several species
Bug	Cinex.—Numerous species
Louse, on cabbages	Alphis brassicæ
Louse, on leaves of trees and plants	Alphis.—Numerous species
Bug, on plants and trees	Chermes.—Many species
Butterfly	Papilio. Numerous species and several non-descripts
Night Flutterer, Owl Moth	Sphinx
	Many new species

Moth, or Miller	Phalæna Numerous species
Apple Moth, or Canker Worm	Phalæna wauaria?
Dragon Fly Adder Fly	Libellula.—Several species
	Hemerobius pictinicornis Several species
Oak Apple Fly	Cynips.—Several species
Saw Fly	Tenthredo betulæ
Wasp Hornet	Vespa.—Many species
Humble Bee Wild Bee	Aspis.—Several species
Ant	Formica.—Several species
Black Fly Brown Fly	Musca.—Numerous species
Horse Fly	Tabanus.—Several species
Mosquito, or Musketoe	Culex pipiens
Stinging Fly	Conops calcitrans
Snow Flea	Podura nivalis
Father Long Legs	Phalangium Several species
Spider	Aranea.—Many species
Crab Lobster Shrimp Hermit Crab Slender Crab	Cancer.—Many species
King Crab, or Horse Shoe	Monoculus polyphemus Monoculus piscinus
Cray Fish Amphibious Lobster	
	Monoculus pulex Monoculus quadricornis

VERMES.

Sea Clam	Holothuria phantaphus
Squid	Sepia media Sepia loligo
Sea Lungs	Medusa pilearis
Star Fish or Finger Fish	Asterias.—Three or four species
Sea Egg	Echinus.—Several species
Barnacle	Lepas anatifera
Hog Clam	Mya arenaria
Razor Shell Clam	Solen ensis
Long Shell Clam	Solen radiatis
Oyster	Ostrea——
Muscle	Mytilus edulis
Cockle	Nerita littoralis?
Limpets	Patella fusca

Sand Shell Clam	Sabella granulata
Sea Anemone	Anemone marina (locomotiva)

It is proper to introduce here some account of that curious animal, distinguished by the names of *Animal Flower*, *Sea Nettle*, but more generally by the name of *Sea Anemone*, from its resemblance to the flower of that plant. Their general appearance is like that of a great number of flowers of different sizes, with six expanded leaves in each blossom, and supported on short, thick flower stems, growing from the rocks. When the leaves or arms of the animal are contracted, it resembles a truncated cone, with its base adhering to the rock; but it has the power of assuming a variety of shapes, as that of a large flower with a number of petals, or flower leaves; or of a full blown anemone; or of a large rose or poppy, &c. When the arms or leaves of the larger ones are extended, they are 5 or 6 inches in circumference, and exhibit a great variety and brilliancy of colors, as purple, flesh, green, violet, delicately shaded with brown or black. On touching the leaves or arms, they instantly contract, and when small muscles are offered them, they grasp them in their arms and conduct them to their mouths, which are situated in the centre of the blossom, and directly swallow them. Pieces of shells thus swallowed, are afterwards discharged by the mouth, perfectly cleared of their contents.

The sea anemone, is said to be viviparous, and to produce 5 or 6 young ones at a time. The Abbe Dicquemarre has shewn by a course of curious but cruel experiments,* that these animals possess, in a most extraordinary degree, the power of re-production; so that scarcely any thing more is necessary to produce as many sea anemones as we please, than to cut a single one into so many pieces.

The Wheat fly, commonly but improperly called the Hessian fly, has, of late years, proved destructive to the wheat in various parts of the United States. This insect is probably a non-descript, and peculiar to the United States.†

The Ink or Cuttle fish is a curiosity. It is furnished with a cyst of black liquor, which it emits when pursued by its enemies, and improves this opportunity to make its escape.

Mineralogy. A minute account of this subject must be deferred to our description of the several states.

Iron exists in great abundance throughout the United States. *Lead* mines are wrought in various places, particularly in Pennsylvania and Virginia. *Zinc* and *manganese* are found in New-York. *Copper* mines have been discovered in Rhode Island, New-York, and New-Jersey; and very extensive and rich ones on the southern shore of lake Erie. Native *quicksilver* is found near Reading, in Pennsylvania. A *silver* mine exists in New-York. *Gold* has been found in North-Carolina.

Coal is found in the greatest abundance on James river, in Virginia, and in great quantities, also, in Rhode Island, New-York, Pennsylvania, and Maryland. Native *sulphur* exists in very great

* See Phil. Trans. for 1773. † Dr. Mitchill.

quantities in New-York. *Marble* is very abundant in Massachusetts, Connecticut, and New-York. *Gypsum*, *alum*, and *asbestos*, are found in various places. An extensive mine of *yellow ochre* has lately been discovered in Connecticut; as has likewise a large mass of pure siliceous earth, fitted to make the best of porcelain.

Mineral Springs. The most noted of these are Ballstown and New-Lebanon springs, in the state of New-York; Hot springs and Sweet springs in Virginia, and Stafford springs in Connecticut. The salt springs of Onondago in New-York, the Wabash saline, and the salt springs on the Great Kanhawa, will, together with these, be particularly described hereafter.

Natural Curiosities. Probably no other country presents so interesting an object to the eye of curiosity as the falls of Niagara. They are situated in that part of the St. Lawrence, which runs between lakes Erie and Ontario, and is called Niagara river, 21 miles from the former and 15 from the latter. The St. Lawrence is probably surpassed by no river, but the Amazon, in its annual tribute to the ocean. Its size is never swollen in the spring, nor shrunk in the autumn. Its width, at the ferry, 2 miles from lake Erie, is about 1 mile, its average depth 25 feet, and its average rapidity from thence to Chipeway 6 miles an hour. At the ferry it is much greater. The bed of the river from lake Erie to Queenstown, 7 miles below the falls, is a mass of solid limestone rock. Above Chipeway there is no appearance of a rapid. Still the ripple on the surface, and the constant rise in the height of the bank, evince a very uncommon descent in the level of the river. About $1\frac{3}{4}$ mile above the principal fall the surface is broken by a great number of shelves or ledges of rocks, which extend in an irregular succession down to the cataract, and reach, many of them, almost across the river. These shelves are nearly parallel, and the river where they commence is about 3 miles wide. Its waters instantly become convulsed, and its surface broken by numberless hillocks of foam, assuming every variety in their figure and dimensions. The force exerted by the waters, as they roll over these ledges of rocks, gives a grandeur to the scene, which nothing but the cataract below can rival. The whole descent in these rapids is 57 feet. Immediately above the falls the river turns to the N. W. and is instantly contracted to a quarter of its previous width. This contraction gives a degree of impetuosity and violence to the current, hardly surpassed when it is falling from the precipice.

The water is precipitated over an immense mass of limestone rock, which forms the bed of the river. The width of the river, in a straight line at the falls, is $\frac{3}{4}$ of a mile. But as its principal force is exerted in the centre, the brow of the precipice has been worn into the shape of a horse shoe, and its whole winding width is not less than a mile and a half. This distance is divided by a small woody island, called Goat island, near the American side, which divides the cataract into two. The elevation of this island above the surface of the stream, is not very great, but it presents, towards the N. W. a bold, perpendicular front of bare solid rock, the whole height of the cataract. The width of the fall between Goat island,

and the American side, is about one fifth of the whole, and that of the island itself another fifth; although the quantity of water on the British side is probably ten times as great as on the other.

The *Table Rock* is a part of the Canada bank, which is on the margin of the great sheet of falling water. It furnishes altogether the most interesting view of the falls. The eye looking up the river beholds it tumbling with strange magnificence over the ledges of rocks, which, seen from this place, appear close together, and appear to constitute a single broken cataract. The immense mass of waters, greatly increased in their rapidity by this descent, and perhaps still more by the contraction of the river, rolls with an almost instantaneous motion to the brow of the precipice, and shoots many yards beyond, as it falls over it into the abyss below. The depth of the precipice, the roar of the cataract, the mass of the waters, and above all the inconceivable exertion of power, overwhelm the mind with emotions of sublimity and grandeur; and fill it with new and clearer views of the weakness and littleness of man.

From the surface of the stream beneath, there arises a thick and constant cloud of vapour, which mounts above the precipice, to the height of more than 100 feet. In clear weather three primary rainbows are frequently visible at once in various parts of this cloud. These, when the sun is near the horizon, appear complete semicircles, and are often of singular lustre and beauty. Beneath the fall lies a thick mass of foam, which, for a great extent, covers the surface of the water. The whole perpendicular descent is 152 feet. The depth of the river, beneath the fall, is probably far greater, for the tallest trees, descending perpendicularly, are lost for several minutes beneath the water before they reappear. The banks of the river below are on both sides perpendicular, of solid rock, and of the same height with the fall. They continue of this height 7 miles to Queenstown. Here the cataract is supposed to have commenced after the deluge, and from this place to have worn its way backward to its present spot. No one who examines the ground will doubt for a moment that this has been the case; and those who have lived for 20 years on the bank all attest to this retrograde motion. These falls are in lat. 43° N.

For other natural curiosities, in the United States, see this head in the descriptions of the several states.

GRAND DIVISIONS.

The territory denominated THE UNITED STATES OF AMERICA, comprises the four following grand divisions, viz.

1. NEW-ENGLAND,

(called, also, the NORTHERN, and the EASTERN STATES)

Comprehending

Vermont	Massachusetts Proper
New-Hampshire	Rhode Island
District of Maine (belonging to Massachusetts)	Connecticut

Whole number of inhabitants 1,471,973

2. MIDDLE STATES,

Comprehending

New-York
New-Jersey
Delaware
Pennsylvania
Ohio
Michigan
North West
Illinois and
Indiana
} Territories

Whole number of inhabitants 2,359,708

3. SOUTHERN STATES,

Comprehending

Maryland
Columbia Territory
Virginia
Kentucky
North-Carolina
Tennessee
South-Carolina
Georgia
Missisippi Territory

Whole number of inhabitants 3,310,829

4. LOUISIANA,*

Comprehending

Orleans and Louisiana } Territories

Whole number of inhabitants 97,401

Total 7,239,903

* A general name, proper for comprehending the whole territory under the government of the United States, has long been a desideratum. The following was suggested several years ago, in the AMERICAN GAZETTEER, and is here inserted for the purpose of showing the great convenience of such a name, and of prompting the proper authorities in due time to adopt this, or such other name, as they shall judge more appropriate.

FREDONIA,

A generic name proposed to be given to the territory now called by the descriptive name of the United States of America, including the annexed territory of Louisiana; bounded N. by Upper and Lower Canada; E. by New-Brunswick and the Atlantic ocean; south by the Floridas and the gulf of Mexico; and west by the chain of mountains which divide the waters of the Missisippi from those of the Pacific ocean. This extensive territory lies between lat. 28° and 50° N. and lon. 65° and 116° W. from Greenwich. Its extreme length is upwards of 2000 miles, and its extreme breadth about 1500. It is estimated to contain nearly 2,000,000 square miles, or about four fifths as many as are contained in all Europe. It is about twice the size of the Chinese empire (which supports upwards of 300,000,000 inhabitants) and, Russia excepted, is by far the largest territory on earth, whose inhabitants live under the same government. The Missisippi river divides Fredonia, nearly in its centre, from N. to S. The vale which this river intersects, contains nearly a million square miles, and is reckoned among the finest portions of the globe. Fredonia has a sea coast of many thousand miles extent, full of convenient harbors. Over the extended surface of Fredonia are scattered, in some parts (particularly New-England) thickly, but generally very sparsely, upwards of seven millions of inhabitants, exclusive of Indians, more than a seventh part of whom are in slavery.

NEW-ENGLAND,

OR, THE NORTHERN OR EASTERN STATES.

SITUATION AND BOUNDARIES. CLIMATE AND DISEASES. FACE OF THE COUNTRY, MOUNTAINS, CATARACTS, &C. SOIL. RIVERS. LAKES, PONDS AND HARBORS. PRODUCTIONS. FORESTS. POPULATION AND CHARACTER. HISTORY.

Situation and Boundaries. NEW-ENGLAND lies around the great bay which sets up N. W. between cape Cod and cape Sable, between 41 and 48 degrees N. lat. and between 64 degrees 54 minutes, and 73 degrees 39 minutes W. lon. from Greenwich, and is bounded north by Lower Canada; east by the province of New-Brunswick and the Atlantic ocean; south by the same ocean and Long-Island Sound; west by the state of New-York. It lies in the form of a quarter of a circle. Its west line, beginning at the mouth of Byram river, which empties into Long-Island Sound at the southwest corner of Connecticut, lat. 41 degrees, runs a little east of north, until it strikes the 45th degree of latitude, and then curves to the eastward almost to the gulf of St. Lawrence. Its extreme length is about 626 miles; its breadth is very unequal from 100 to 200 miles; containing about 72,000 square miles.

Climate and Diseases. New-England has a very healthful climate, as is evinced by the longevity of the inhabitants. It is estimated that about one in seven of the inhabitants live to the age of 70 years; and about one in thirteen or fourteen to 80 years and upwards. No regular disease is known to prevail in any part of it. East winds prevail along the coast in the spring, which are extremely piercing and disagreeable, but not unwholesome. The chilliness of these winds is probably occasioned, by the cold fogs on the fishing banks off cape Sables, driven hither by the east winds.

Northwest, west, and southwest winds are the most prevalent. The weather is less variable than in the middle and especially the southern states, and more so than in Canada. The extremes of the heat and cold, according to Farenheit's thermometer, are from 20° below, to 100° above 0. The medium is from 48° to 50°. The inhabitants of New-England, on account of the dryness of their atmosphere, can endure without inconvenience, a greater degree of heat than the inhabitants of a moister climate. It is supposed by some philosophers, that the difference of moisture in the atmosphere in Pennsylvania and New-England is such, as that a person might bear at least ten degrees of heat more in the latter than in the former.

The quantity of water which annually falls in England is computed at 24 inches; in New-England from 42 to 48; and yet in the latter they suffer more from drought than in the former. These

facts evince the remarkable dryness of the atmosphere, in this eastern division of the United States, and in part account for its singular healthfulness. Winter commonly commences, in its severity, about the middle of December; sometimes earlier, and sometimes not till Christmas. Cattle are fed or housed, in the northern parts of New-England, from about the 20th of November to the 20th of May; in the southern parts not quite so long. There have been frosts in every month in the year, though not in the same year; but not very injurious.

The diseases most prevalent in New-England are the following, viz.

Alvine fluxes	Inflammatory,	
St. Anthony's Fire	Slow, Nervous and	Fevers
Asthma	Mixed	
Atrophy	Pulmonary Consumption	
Catarrh	Quinsy	
Cholic	Rheumatism	

Of these disorders, the pulmonary consumption is much the most destructive, and is commonly the effect of imprudent exposures to cold and rainy weather and the night air, with the same quantity of clothing, and the wearing of damp linen; and among the lowest orders of people from the intemperate use of strong liquors, especially of fresh distilled rum, which in too many instances proves the bane of morals, and the ruin of families.

The small pox, which is a specific, infectious disease, is not allowed at present to be communicated by inoculation, except in hospitals erected for the purpose, in bye places, and in cases where there is a probability of a general spread of the infection in a town. Nor is this disease permitted to be communicated generally by inoculation, in any of the United States, except New-York, New-Jersey, Pennsylvania, Delaware, and South-Carolina. Vaccination, which has already effected much, it is hoped will soon banish this loathsome and desolating disease from our country and the world.

In populous towns, the prevalent diseases are more numerous and complicated, owing to want of fresh air and exercise, and to luxurious and fashionable living.

In these northern latitudes, the prevalent disorders of the winter months, among the males are inflammatory. Both men and women suffer from not adopting a warmer method of clothing.

The intermittent fever, or ague, is seldom seen within 30 or 40 miles of the sea coast, and scarcely ever, any where in New-England, excepting where they have dammed up the water, for the sake of mill streams, that is to say, where they have converted a running water into nearly a stagnant pond.

A late writer* has observed, "that in other countries, men are divided according to their wealth or indigence, into three classes; the opulent, the middling and the poor; the idleness, luxuries, and debaucheries of the first, and the misery and too frequent intemper-

* Dr. Foolke, in a discourse read before the American Philosophical Society.

ance of the last, destroy the greater portion of these two. The intermediate class is below those indulgences which prove fatal to the rich, and above those sufferings to which the unfortunate poor fall victims: This is therefore the happiest division of the three. Of the rich and poor, the United States furnish a much smaller proportion than any other district of the known world. In Connecticut particularly, the distribution of wealth and its concomitants is more equal than elsewhere, and therefore, as far as excess or want of wealth may prove destructive or salutary to life, the inhabitants of this state may plead exemption from diseases." What this writer says of Connecticut in particular, will, with very few exceptions, apply to New-England at large.*

Face of the Country, Mountains, Cataracts, &c. New-England is a country which presents to the traveller all the varieties of surface which can be found. There is a plain of great extent in the southeastern part of Massachusetts. Extensive plains are also spread through a considerable part of the counties of York and Cumberland, and along the Merrimac through the interior of New-Hampshire. Many others not inconsiderable exist in other places. Vallies of every size, from the great Connecticut valley to the little bason, constitute, of course, no inconsiderable part of a country which is so generally undulating, and whose hills are a proverbial description of its surface. Connecticut valley extends from Saybrook to the Canada line, and is not far from 300 miles in length. Its breadth varies from half a mile to 20 miles, and is charmingly diversified by the intrusion of numerous spurs from the two great ranges of mountains, which form its eastern and western boundaries.

The mountains in New-England are either long ranges or separate eminences, and have been already described.

New-England abounds in cataracts and cascades, alternately of great beauty and grandeur; of the first of these, the Connecticut, Housatonnic or Hooestonnuc, Onion, Saco, Kennebec, and Penobscot furnish a great number, as do also several smaller rivers. The cascades of the White mountains are perhaps unrivalled in their romantic beauty.

* The following calculations and observations on the length of man's life, the result of much investigation, are inserted for the gratification of the curious:

Of 1000 persons—23 die at the birth
277 cutting teeth, worms and convulsions
80 small pox
7 measles
8 women in child birth
191 consumptions, asthma, and other complaints of the breast
150 of fevers
12 apoplexy
41 dropsy

789
1000

211 only arrive at advanced age, and from these must be deducted those who are carried off by casualties, and diseases not mentioned above.

Precipices of great wildness and grandeur are presented by very many of these mountains; the southwestern side of the summit of Mount Washington, particularly, which is a perpendicular descent of vast extent, and is superlatively majestic and awful. Of softer or more elegant scenery, few countries furnish so many, or so exquisite varieties as New-England. The fine intervals which border its numerous streams, particularly the noble ones on the Connecticut, are among the most finished beauties of the landscape. To complete the picture, the native and universal verdure which clothes the lean and dry, as well as the moist part, gives an unrivalled cheerfulness to the whole country.

Soil. The soil of New-England is diversified by every variety from a lean and barren sand, to the richest clays and loams. The first great division of soil is a brown loam every where mixed with gravel. With this the hills, which constitute a great proportion of the whole surface, are universally covered. The soil is always favorable to the production of grass, and in the western parts of the country (when not too moist) of wheat and all other kinds of grain, and of every kind of fruit suited to the climate. Maize, or Indian corn, grows well, even on the wet grounds, where this soil exists.

Clayey soils are more rarely found and are also very productive, especially when manured. A rich loam, varying towards clay, begins at Guilford and Branford in Connecticut, and spreads through the whole breadth of that state, terminating in West-Springfield. The same soil prevails also in Salisbury and Sharon, and covers about one quarter of the western half of Connecticut. This soil, wherever it exists, is favorable to every kind of cultivation, and is surpassed in goodness by no land in this country.

Sand prevails very commonly on the plains, and abounds in the southeastern part of Massachusetts, in the old colony of Plymouth. The yellow pine plains are commonly a mixture of sand and gravel; are light and warm, and friendly to every production which does not demand a richer soil. The white pine plains are usually covered with loam, as are some of the yellow pine plains, and are not unfrequently fertile. The vallies, almost without exception, are a mould, and friendly to every growth of the climate.

The intervals, which border the various streams, are usually lands formed by earth deposited by the floods, (or, as they are called, freshets) in the spring, and are of the richest quality. Marshes, except of trifling extent, are rare. The most considerable are around New-Haven, and along the eastern coast of Massachusetts and New-Hampshire.

Rivers. The principal rivers of New-England are the Schodic, Penobscot, Kennebec, Amariscoggin, Saco, Piscataqua, Merrimac, Parker's, Charles, Taunton, Providence, Thames, Connecticut, Housetonnuc or Stratford, Onion, La Moille, and Missiscoui. Penobscot, Kennebec, Merrimac, and Connecticut are the largest.

Innumerable smaller rivers divide the country in every direction, enrich the soil, adorn the landscape, and furnish mill seats to almost every village. Windmills are erected in very few places. The

principal rivers, which have not been already noticed will be described under their proper heads.

Lakes, Ponds, and Harbors. The principal lakes are Champlaine and Memphremagog, lying partly in Vermont, and partly in New-York; Winnipisiogee and Umbagog, in New-Hampshire; Sebacook, Moosehead, Willeguenguagun and Chilmacook or Grand lake, in Maine. Small lakes, commonly called ponds, of every size, are scattered throughout the country. Springs and small brooks water almost every farm.

Harbors abound in Maine and Massachusetts. The most useful ones at present, are those of Machias, Frenchman's Bay, Wiscasset, Portland and Wells, in Maine; Piscataqua, in New-Hampshire; Newbury-Port, Salem, Marblehead, Boston, Provincetown and New-Bedford, in Massachusetts Proper; Newport, Bristol and Providence, in Rhode-Island; and New-London, New-Haven, and Black Rock in Fairfield, in Connecticut. Burlington Bay is the most considerable harbor in lake Champlain, on the Vermont shore.

Productions. The produce of the fields in New-England is of every kind suited to the climate. In the western half, and in various parts of the eastern, wheat, before the ravages of the Hessian fly, grew abundantly; but that insect has not a little discouraged the culture of this grain. Indian corn is a most abundant and useful grain, furnishing a very healthful and pleasant food to the inhabitants, and yielding also the best means of fattening their numerous herds of cattle and swine. The kind, frequently called sweet-corn, is perhaps the most delicious of all culinary vegetables, if eaten young, and one of the most salubrious. The juice of the corn-stalk yields a rich molasses and a spirit not inferior to that of the sugar cane. No cultivated vegetable makes so noble an appearance in the field. Fruits of every kind, which suit a temperate climate, abound, or may be easily made to abound here. The heat of the summer brings to high perfection the peach, apricot and nectarine. The orchards of apple-trees cover a considerable part of the whole country, except the new settlements. Cider is the common drink of the inhabitants of every class, and may often be obtained, in the interior country, by paying for the labor of gathering the apples and making the cider. Pears, plums, cherries, currants, gooseberries, whortleberries, blackberries, bilberries, &c. abound. Perry is made in some parts of the country, but not in great quantities. Butternuts, shagbarks, and various other fruits of the different species of the hickory and hazlenuts, are plentifully furnished by the southern half of New-England. Madeira nuts and black walnuts are rarely cultivated, although the last grow very easily and rapidly. Hortuline productions are also abundant of every kind, found in this climate, and grow with very little care of culture. Gardening is much improved, and still advancing; many good gardeners are seen in almost every quarter of New-England. But the most important production of New-England, is grass. This not only adorns the face of the country, with a beauty unrivalled in the new world, but also furnishes more wealth and

property to its inhabitants than any other kind of vegetation. A farm of two hundred acres of the best grazing land, is worth, to the occupier, as much as a farm of three hundred acres of the best tillage land. The reason is obvious. Far less labor is necessary to gather the produce and convey it to market.

The beef and pork of New-England are abundant and excellent, and feed the inhabitants of many other countries. The mutton is also exquisite, when well fed, and of the proper age; but it must be confessed, that, except in a part of the eastern half of this country, it is very often brought to market too young, and indifferently fed; to the injury of both the farmer and the consumer. The lamb is universally fine, but is most excellent in the states of New-Hampshire and Vermont; and particularly in the parts of these states which border on Connecticut river. A great discouragement to the raising of sheep exists in a kind of enclosure, which is extensive, the stone wall: over this wall sheep pass with great ease, and cannot, without much difficulty and labor, be prevented from intruding into all the parts of a farm, wherever this kind of fence is in use. This evil, which is not a small one, will, however, be probably removed by increasing the new breed of sheep, called the Otter breed. These sheep, which, it is said, began in an extraordinary manner at Mendon, in Massachusetts, (of which a sufficiently correct account to be inserted here has not been received) have legs somewhat resembling those of a hare; and while they are not inferior to the common breed, in flesh or wool, are unable to climb any fence; a circumstance, which, in New-England, confers on them a peculiar value. The Merino sheep have been introduced from Spain, within a few years, and the expectation is, that they will be of immense benefit to the manufactures of our country. The wool of the New-England sheep, is of a good staple, and may be improved, (as it often has been by attentive farmers) to a high, but indefinite degree. The best wool, and the best mutton also, are furnished by short and sweet pastures, and in dry seasons.

The veal of New-England is very rich and fine when well fed, as it is to a great extent.

Butter and cheese, in this country, are made in vast quantities, and of various goodness. The butter is very generally excellent, but is still very commonly rendered sensibly worse in the firkin, by the imperfect manner in which it is prepared. A great quantity of ordinary cheese is shipped yearly, to the disadvantage of both the maker and the merchant. There is also a great quantity of cheese of a superior quality made throughout the country. The dairies in Pomfret and Brooklyn, and a few of the neighboring towns in the eastern part of Connecticut, and the western parts of Rhode Island, are of the best quality.

Forests. Of the forests of New-England, and not improbably of the world, the white pine is the first ornament: The greatest diameter of this extraordinary tree does not exceed six feet, but its height, in some instances, exceeds two hundred and sixty. This vast stem is often exactly straight, and tapering, and without a

limb, to the height of more than one hundred and fifty feet. The color and form of the foilage are exquisite; and the whole crown is noble beyond any thing of this kind, and perfectly suited to the stem which it adorns. The murmurs of the wind in a grove of white pines, is one of the first poetical objects in the field of nature. This tree is of vast importance for building. The white oak of New-England is a noble and most useful tree. It is less durable than the live, or the English oak; but the early decay of ships, built of the white oak, so generally complained of, is less owing to the nature of the tree, than to the haste and carelessness of the builders. When the timber has been well selected and seasoned, ships formed of this material have come near to the age of those built of the English oak. The chesnut is also of incalculable importance as a material in the construction of buildings and for fencing. A fence composed of good rails of this tree, will endure seventy or eighty years. The chesnut is very common throughout the southern half of New-England, and is of no small value on account of the nourishment it affords to swine during their growth.

Population and Character. New-England is the most populous part of the United States. It contained, in 1790, 1,009,522 souls, in 1800, 1,233,011, and in 1810, 1,471,973. The great body of these are landholders and cultivators of the soil. As they possess, in fee simple, the farms which they cultivate, they are naturally attached to their country; the cultivation of the soil makes them robust and healthy, and enables them to defend it.

New-England may, with propriety, be called a nursery of men, whence are annually transplanted, into other parts of the United States, thousands of its natives. Vast numbers of them, since the war, have emigrated into the northern and western parts of New-York, into Canada, Kentucky, Ohio, and Georgia; and indeed into every state, and every town of note in the union.

The inhabitants of New-England are almost universally of English descent; and it is owing to this circumstance, and to the great and general attention that has been paid to education, that the English language has been preserved among them so free from corruption.

The New-Englanders are generally tall, stout, and well built. Their education, laws and situation, serve to inspire them with high notions of liberty. Their jealousy is awakened at the first motion towards an invasion of their rights. A chief foundation of freedom in the New-England states, is a law by which intestate estates descend to all the children, or other heirs, in equal proportions. In consequence of these laws, the people of New-England enjoy an equality of condition unknown in any other part of the world: And it is in this way that the people have preserved that happy mediocrity among themselves, which, by inducing economy and industry, removes from them temptations to luxury, and forms them to habits of sobriety and temperance. At the same time, their industry and frugality exempt them from want, and from the necessity of submitting to any encroachments on their liberties.

In New-England, learning is more generally diffused among all ranks of people, than in any other part of the globe; a fact arising from the excellent establishment of schools in every town.

In these schools, which are generally supported by a public tax, and under the direction of a school committee, are taught the elements of reading, writing, arithmetic, geography, &c.

A very valuable source of information to the people is the newspapers, of which nearly 100,000 are printed every week in New-England, and circulated in every town and village in the country. In 1775, there were only 34 newspaper establishments in the British colonies, which now compose the United States; in 1800, they had increased to upwards of 150; and in 1811, to 360, which issue, annually, at a moderate calculation, above twenty two millions of newspapers, being more than are published in the United kingdoms of Great-Britain and Ireland. There are at this time above 400 printing offices in the United States, employed in the printing of newspapers, books, &c.*

A person of mature age, who cannot both read and write, is rarely to be found. By means of this general establishment of schools, the extensive circulation of newspapers and books, and the consequent diffusion of learning, every township throughout the country is furnished with men capable of conducting the affairs of their town with judgement and discretion: These men are the channels of political information to the lower class of people, if such a class may be said to exist in New-England, where every man thinks himself at least as good as his neighbour. The people, from their childhood, form habits of canvassing public affairs, and commence politicians. This naturally leads them to be very inquisitive. It is with knowledge as with riches, the more a man has, the more he wishes to obtain; his desire has no bound. This desire after knowledge, in a greater or less degree, prevails throughout all classes of people in New-England; and, from their various modes of expressing it, some of which are blunt and familiar, bordering on impertinence, strangers have been induced to mention *impertinent inquisitiveness* as a distinguishing characteristic of New-England people. But this inquisitiveness is rarely troublesome, and generally pleasing. The common people in New-England are outdone by no common people in the world, in civility to strangers.

Before the late war, which introduced into New-England a flood of corruptions, together with many improvements, the Sabbath was observed with great strictness; no unnecessary travelling, no secular business, no visiting, no diversions were permitted on that sacred day. The people considered it as consecrated to divine worship, and were generally punctual and serious in their attendance upon it. Their laws were strict in guarding the Sabbath against every innovation. The supposed severity with which these laws were composed and executed, together with some other traits in

* For a very particular account of the progress of printing in America, and of the branches of manufacture connected with it, see Thomas's "*History of Printing.*" 2 vols. 8vo. published in 1810.

their religious character, have acquired for the New-Englanders the name of a superstitious, bigotted people. But all persons are called superstitious by those less conscientious, and less disposed to regard religion with reverence, than themselves. Since the war, a catholic, tolerant spirit, occasioned by a more enlarged intercourse with mankind, has greatly increased, and is becoming universal: And if they do not go beyond the proper bound, and liberalize away all true religion, of which there is very great danger, they will counteract that strong propensity in human nature, which leads men to vibrate from one extreme to its opposite.

There is one distinguishing characteristic in the religious character of this people, which we must not omit to mention; and that is, the custom of annually celebrating fasts and thanksgivings. In the spring, the governors of the several New-England states issue their proclamations, appointing a day to be religiously observed in fasting, humiliation and prayer, throughout their respective states; in which the predominating vices, that particularly call for humiliation, are enumerated. In autumn, after harvest, that gladsome era in the husbandman's life, the governors again issue their proclamations, appointing a day of public thanksgiving, enumerating the public blessings received in the course of the foregoing year.

This pious custom originated with their venerable ancestors, the first settlers of New-England; and has been handed down as sacred, through the successive generations of their posterity. A custom so rational, and so happily calculated to cherish in the minds of the people, a sense of their dependence on the GREAT BENEFACTOR of the world for all their blessings, it is hoped will ever be sacredly preserved.

The people of New-England generally obtain their estates by hard and persevering labor: They of consequence know their value, and are frugal. Yet in no country do the indigent and unfortunate fare better. Their laws oblige every town to provide a competent maintenance for their poor, and the necessitous stranger is protected and relieved by their humane institutions. It may in truth be said, that in no part of the world are the people happier, better furnished with the necessaries and conveniences of life, or more independent than the farmers in New-England. As the great body of the people are hardy, independent freeholders, their manners are, as they ought to be, congenial to their employment, plain, simple, and manly. Strangers are received and entertained among them with a great deal of artless sincerity, and friendly, plain hospitality. Their children, those imitative creatures, to whose education particular attention is paid, early imbibe the manners and habits of those around them; and the stranger, with pleasure, notices the honest and decent respect that is paid him by the children, as he passes through the country.

As the people by representation, make their own laws and appoint their own officers, they cannot be oppressed; and, living under governments which have few lucrative places, they have few motives to bribery, corrupt canvassings, or intrigue. Real abilities and a moral character unblemished, are the qualifications requisite

in the view of most people, for officers of public trust. The expression of a wish to be promoted, was, and is still in some parts of New-England, the direct way to be disappointed.

The inhabitants are generally fond of the arts and sciences, and have cultivated them with great success. Their colleges have flourished. The illustrious characters they have produced, who have distinguished themselves in politics, law, divinity, mathematics, and philosophy, natural and civil history, and in the fine arts, particularly in poetry and painting, evince the truth of these observations.

Many of the women in New-England are handsome. They generally have fair, fresh, and healthful countenances, mingled with much female softness and delicacy. Those who have had the advantages of a good education, and they are numerous, are genteel, easy, and agreeable in their manners, and are sprightly and sensible in conversation. They are early taught to manage domestic concerns with neatness and economy. Ladies of the first distinction and fortune, make it a part of their daily business to superintend the affairs of the family. Employment at the needle, in cookery, and at the spinning wheel, with them is honorable. Idleness, even in those of independent fortunes, is universally disreputable. The women in country towns manufacture the greater part of the clothing of their families. Their linen and woollen cloths are strong and decent. Their butter and cheese is not inferior to any in the world.

Among the amusements of the people of New-England is dancing, of which the young people of both sexes are extremely fond. Gaming is practised by none but those who cannot, or rather will not find a reputable employment. The gamester, the horse-jockey, and the knave, are equally despised, and their company is avoided by all who would sustain fair and irreproachable characters.

The athletic and healthy diversions of cricket, foot-ball, quoits, wrestling, jumping, hopping, foot races, and prison bars are universally practised in the country, and some of them in the most populous places, and by people of almost all ranks.

History. New-England owes its first settlement to religious persecution. Soon after the commencement of the reformation in England, which was not until the year 1534, the Protestants were divided into two parties; one the followers of Luther, and the other of Calvin. The former had chosen gradually, and almost imperceptibly, to recede from the church of Rome; while the latter, more zealous, and convinced of the importance of a thorough reformation, and at the same time possessing much firmness and high notions of religious liberty, were for effecting a thorough change at once. Their consequent endeavors to expunge from the church all the inventions which had been brought into it since the days of the apostles, and to introduce the "Scripture purity," derived for them the name of PURITANS. From these the inhabitants of New-England descended.

VERMONT.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORICAL EPOCHS. RELIGION. GOVERNMENT. POPULATION. MILITIA. REVENUE. CHARACTER. LITERATURE. TOWNS. MANUFACTURES. BANK. COMMERCE.

Extent. VERMONT lies between lat. 42 44 and 45° N. and between long. 71 33 and 73 26 W. The whole north end is on the parallel of 45°. Its mean length is 157½ miles. Its breadth on the Canada line 90, and on the Massachusetts 40. The average breadth is 65; the number of square miles is 10,237, and of acres, 6,552,000.

Boundaries. North by Lower Canada; east by Connecticut river, which divides it from New-Hampshire; south by Massachusetts; west by New-York and the deepest channel of Poultney river, East bay, and lake Champlain.

Divisions. Vermont is divided into 12* counties, and 246 towns. The counties are arranged as follows beginning from the S. E.

	Counties.	Towns.	Population. 1800	Population. 1810	Chieftowns.	sq. miles. in each co.
East	Windham	23	23,581	26,760	Westminster, Brattleborough, Newfane	786
East	Windsor	23	26,969	34,877	Windsor, Woodstock	898
East	Orange	21	18,239	25,247	Chelsea	745
East	Caledonia	22	9,332	18,730	Danville, Peacham	771
North	Essex	19	1,479	3,087	Guildhall	685
North	Orleans	23	1,439	5,830	Craftsbury, Brownington	832
North	Franklin	19	7,573	16,427	St. Albans	729
West	Grand Isle	5	2,489	3,445	North Hero	82
West	Chittenden	23	11,490	18,120	Burlington	804
West	Addison	23	13,417	19,993	Middlebury, Vergennes	715
West	Rutland	27	23,834	29,486	Rutland	658
West	Bennington	18	14,607	15,893	Bennington, Manchester	614
Total	12	246	154,449	217,895		8716

* A new county, making the 13th, by the name of Jefferson, was formed at the session of the legislature in 1810, of part of the counties of Chittenden, Caledonia, and Orange, of which Montpelier is the centre; which is to be organized when there are erected a court house and gaol, approved by the judges of the supreme court.

Name. Vermont is merely *verd mont*, the French for green mountain. It is said that Ethan Allen conferred the name on the mountains and thence it was transferred to the territory.

Historical Epochs. Vermont was originally possessed by the Coos Indians, and other tribes of Moheakanneews. Massachusetts first claimed the territory. In 1718 that government gave 49,000 acres, in the S. E. part of the state, to Connecticut, for some lands which had been granted by Massachusetts within the limits of the Connecticut charter. In 1725 a fort was erected at Brattleborough. From 1741 till 1764, Vermont was considered as belonging to the jurisdiction of New-Hampshire, and, in 1760, a number of towns were settled. In 1764 parliament annexed Vermont to New-York. The government of that province claimed the right of soil, and disposed of lands which had been granted by New-Hampshire, and settled by the grantees. This occasioned a long and violent dispute between the settlers and the claimants under New-York. In 1790, New-York, for 30,000 dollars, withdrew its claims; and, in 1791, Vermont was admitted a member of the union. The Green Mountain Boys were some of the best troops in the revolutionary war.*

Religion. There are 89 Congregational churches in Vermont, 8 Presbyterian, 23 Baptist, 2 Episcopalian, 1 Universalist, and 1 Friends. Of the towns in Vermont 114 were granted by New-Hampshire. In each of these one right of land, containing usually 330 acres, was reserved for the first settled minister; one right as a glebe for the church of England; one to the society for propagating the gospel; and one for the support of a school. In the other towns granted by Vermont there was one right reserved for a university; one for a town school; one for a county grammar school; and one for the support of the gospel.

The Congregational ministers meet annually in convention, in September; and with such other persons, as choose to pay one dollar a year, constitute *The Vermont Missionary Society*, a useful and active body in propagating the gospel.

Government. The inhabitants of Vermont, by their representatives in convention, at Windsor, on the 25th of December, 1777, declared that the territory called Vermont, was, and of right ought to be, a free and independent state; and for the purpose of maintaining regular government in the same, they made a solemn declaration of their rights, and ratified a constitution, of which the following is an abstract.

Their declaration, which makes a part of their constitution, asserts that all men are born equally free—with equal rights, and ought to enjoy liberty of conscience—freedom of the press—trial by jury—power to form new states in vacant countries, and to regulate their own internal police—that all elections ought to be free—that all power is originally in the people—that government ought to be instituted for the common benefit of the community—and that the community have a right to reform or abolish govern-

* The history of this state has been well written by Samuel Williams, LL. D. published in 1794, and a new edition in 1810.

ment—that every member of society hath a right to protection of life, liberty, and property, and in return is bound to contribute his proportion of the expense of that protection, and yield his personal service when necessary—that he shall not be obliged to give evidence against himself—that the people have a right to bear arms; but no standing armies shall be maintained in time of peace—that the people have a right to hold themselves, their houses, papers, and possessions free from search or seizure; and therefore warrants, without oaths first made affording sufficient foundation for them, are contrary to that right, and ought not to be granted—that no person shall be liable to be transported out of this state for trial for any offence committed within this state, &c.

By the frame of government, the supreme legislative power is vested in a house of representatives of the freemen of the state of Vermont, to be chosen annually by the freemen on the first Tuesday in September, and to meet the second Thursday of the succeeding October: this body is vested with all the powers necessary for the legislature of a free state—two thirds of the whole number of representatives elected make a quorum.

Each inhabited town throughout the state has a right to send one representative to the assembly.

The supreme executive power is vested in a governor, lieutenant governor, and twelve counsellors, to be chosen annually in the same manner, and vested with the same powers, as in Connecticut.

Every person of the age of 21 years, who has resided in the state one whole year next before the election of representatives, and is of a quiet peaceable behaviour, and will bind himself by his oath to do what he shall in conscience judge to be most conducive to the best good of the state, shall be entitled to all the privileges of a freeman of this state.

Each member of the house of representatives, before he takes his seat must declare his belief in one God—in future rewards and punishments, and in the divinity of the scriptures of the Old and New Testaments, and must profess the protestant religion.

Courts of justice are to be established in every county throughout this state.

The supreme court, and the several courts of common pleas of this state, besides the powers usually exercised by such courts, have the powers of a court of chancery, so far as relates to perpetuating testimony, obtaining evidence from places not within the state, and the care of the persons and estates of those who are *non compotes mentis*, &c. All prosecutions are to be commenced in the name and by the authority of the freemen of the state of Vermont. The legislature are to regulate entails so as to prevent perpetuities.

All field and staff officers, and commissioned officers of the army, and all general officers of the militia, shall be chosen by the general assembly, and be commissioned by the governor.

Every seventh year, beginning with the year 1785, thirteen persons (none of whom are to be of the council or assembly) shall be chosen by the freemen, and to be called 'the council of censors,' whose duty it shall be, to enquire whether the constitution has been

preserved inviolate in every part—whether the legislative and executive powers have been properly exercised—taxes justly laid and collected—the public monies rightly disposed of—and the laws duly executed. For these purposes they shall have power to send for persons, papers, &c.—to pass public censures—to order impeachments, and to recommend the repeals of all laws enacted contrary to the principles of the constitution. They are to be vested with these powers for one year only, after the day of their election.

The council of censors, when necessary, may call a convention, to meet two years after their sitting, to alter the constitution; the proposed alterations to be published at least six months before the election of delegates to such convention.

The statutes of Vermont, and the common law of England, (so far as it is applicable) together with such English statutes explanatory of it as were passed before 1760, make up the laws of Vermont.

Population. The number of inhabitants was in the year

1790 { 85,268 whites / 271 blacks } 85,589 1810 { 217,145 whites / 750 blacks } 217,895

1800 { 153,908 whites / 557 blacks } 154,465

The items of the census of 1810 were as follows:

	males.	females.	total.
Under 16 years of age	56,429	53,962	110,391
Between 16 and 45	40,469	41,775	82,244
45 and upwards	13,053	11,457	24,510
Total	109,951	107,194	217,145

The increase, in the first 10 years, was 68,860; and in the second 10, 63,446. At the first census Vermont was the 11th state in point of population; at the second, the 13th; and, at the third, the 13th.

Militia. In 1796 there were, on the militia rolls 19,500 men. These were formed into 4 divisions, consisting of 8 brigades and 22 regiments. The increase since may be estimated according to the increase of the inhabitants. By the constitution of the state the governor is captain general of all the forces of the state; and the lieutenant governor, lieutenant general. Subordinate to these is one major general to each of the four divisions, and one brigadier general to each of the 8 brigades, chosen by the legislature. The bravery of the Green Mountain Boys is proverbial.

Revenue. The revenue of this state arises from rates and taxes granted from time to time by the legislature, and assessed in proportion to the polls and rateable estate. The law determines what is taxable estate, and fixes the value at which it shall be taxed. All persons liable to be taxed are required to deliver to the listers, annually in July, a correct list of all their taxable property.

Character. The inhabitants of this state are an assemblage of people from various places, of different sentiments, manners, and habits; they have not lived together long enough to assimilate and

form a general character. Assemble together, in imagination, a number of individuals of different nations; consider them as living together amicably, and assisting each other through the toils and difficulties of life, and yet rigorously opposed in particular religious and political tenets; jealous of their rulers, and tenacious of their liberties, (dispositions which originate naturally from the dread of experienced oppression and the habit of living under a free government) and you have a pretty just idea of the character of the people of Vermont. Indolence is never a characteristical feature of the settlers of a new country. Emigrants in general are active and industrious. The opposite characters have neither spirit nor inclination to quit their native spot. The inference is, that Vermont is peopled with an active, industrious, hardy, frugal race; as is really the case. And as it is a maxim that the inhabitants of all new countries grow virtuous before they degenerate, it will most probably be so in Vermont.

The inhabitants of the several towns seem generally disposed, as soon as they are able, to settle a minister of the gospel among them. Missionaries from Connecticut and Massachusetts, to the new and scattered settlements, have been generally well received and treated with grateful respect and kindness.

Literature. Vermont has two colleges. One is at Burlington, established in 1791, and has been liberally patronised by the state, and styled a university, but as yet has had few students. The other is at Middlebury, supported chiefly by private bounty, and is a flourishing seminary. It was founded in 1800, and has 120 students. One or more academies are established in most of the counties in the state; and grammar schools in every county. The land reserved for a university amounts to about 33,000 acres, and for grammar schools about the same. Common schools are established in every town. The land reserved for these exceeds 80,000 acres. In no country is common schooling more attended to. A family of children, who could not read, write, and understand common arithmetic, would be looked upon as little better than savages. The provision, in this respect, is certainly worthy of imitation. Two medical societies have been established in this state, one in 1784, and one in 1794.

Towns. Bennington, one of the oldest towns in Vermont, was settled in 1764. It is in the S. W. part of the state. The public edifices are a Congregational church, a court house, and a gaol. The population in 1810, was 2,524. Mount St. Anthony is a high conical mountain in the southern part of the town. The village is planted on a rich tract of land, extending from this mountain northward. On the east side of the mountain is a remarkable cavern, consisting of several apartments from 5 to 50 feet high; the whole extending 45 yards horizontally.

Windsor is a beautiful village, about 45 miles from the Massachusetts line, on the banks of the Connecticut. The houses are very neat and handsome, and the trade is flourishing. The bridge thrown here across the Connecticut is one of the handsomest on the river. Population in 1790, 1542; in 1800, 2,211; and in 1810,

2,757. Ascutney is a fine summit on the S. W. part of the town, 2,031 feet above the sea, and 1,732 above the river.

Rutland lies upon Otter creek, in the western part of the state, 16 miles east of the south end of lake Champlain. It has a Congregational church and a court house. Population in 1790, 1,407; in 1800, 2,125; and in 1810, 2,379.

Middlebury is a pleasant village on the east bank of Otter creek, 20 miles from its mouth. It contains a Congregational church, 2 collegiate buildings, a court house and gaol, a considerable brewery, a gun and card manufactory, a forge, a printing office and bookstore, 3 grist mills and 4 saw mills. Population in 1790, 395; in 1800, 1,263; and in 1810, 2,138. The inhabitants deserve honorable mention for their sobriety and hospitality, and for the spirit and liberality with which they have founded and maintained their college.

Burlington stands on a most beautiful harbor on lake Champlain, on elevated ground, commanding a noble view of the lake and the adjacent country. The prospect from the top of the college is surpassed by none in New-England, except that from Mount Holyoke, and that from the dome of the statehouse in Boston. Population in 1810, 1,690.

Montpelier, a little north of the centre of the state, is the seat of government.

Manufactures. On this head we are sorry not to be able to avail ourselves of the statement returned to the secretary of state with the late census. But as this has not been made public we are constrained to repeat the information received from other sources. There are several distilleries for corn spirits in this state. At Middlebury is a porter brewery on a very large scale. The iron manufacture is carried on to a considerable extent. In the county of Bennington are three forges and a furnace. In the county of Rutland are fourteen forges, three furnaces, and a slitting mill. In the counties of Addison and Chittenden are five forges. In common seasons, large quantities of maple sugar are manufactured for home consumption. It has been estimated, by a competent judge, that the average quantity made for every family back of Connecticut river, is 200lb. a year. One man, with but ordinary advantages, in one month, made 550lbs. of a quality equal to imported brown sugar. In two towns, in Orange county, containing no more than 40 families, 13,000lbs. of sugar were made in the year 1791. In some parts of the state, the inhabitants are beginning to line the roads with maple trees; and it would certainly be a wise measure if this practice should become general throughout the state. Orchards of these trees planted on sloping hills, so as to render it easy to collect the juice, might be attended with peculiar advantages to the owners. Little pains however are taken to plant maple orchards, or even to preserve the trees where they grow spontaneously. Most families manufacture, in their houses, the greater part of their common clothing, from flax and wool raised on their own farms, of an excellent quality.

Bank. There is but one bank in this state, called the Vermont

State Bank, established in 1806, wholly the property of the state. It consists of four branches, at Burlington, Middlebury, Woodstock, and Westminster. It is under the management of 13 directors appointed annually by the legislature. Its bills are not at present in high credit.

Commerce. The inhabitants in the S. E. part of the state trade with Hartford and Boston; in the middle with Boston; and in the N. E. with Portland; in the S. W. with New-York; and in the N. W. with New-York and Montreal. This last has been especially true since the interruptions of American commerce. Burlington on lake Champlain is the only port of entry. The exports in 1810 amounted to 432,631 dollars. They consist chiefly of lumber, horses, beef, pork, butter, cheese, wheat, flour, iron, nails, pot and pearl ashes. The imports cannot be fairly estimated, as they are principally sent through other states.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. MOUNTAINS. SOIL AND PRODUCTIONS. RIVERS. LAKES. SPRINGS. FORESTS. BOTANY. MINERALOGY. NATURAL CURIOSITIES.

Climate. THE winter is cold but (the sky is usually) serene and the weather uniform. Snow lies commonly about four months from December to March; and, on the highlands, falls four feet deep. Vegetation, in the spring, is very rapid. The climate is generally healthy; but some of the towns west of the mountains are frequently afflicted with the fever and ague, and those on the lake, with distressing bilious fevers.

Face of the Country. Vermont is generally mountainous, and no where a plain except near the Canada line. Its mountains are all covered with forests; on the east side with birch, beach, maple, ash, elm, and butternut; and on the west with evergreens.

From Massachusetts line more than 80 miles to the north, the western verge of the Green Mountains, is from twenty to thirty miles on a straight line from Connecticut river. Almost the whole of this country is formed with mountains ranging parallel with the course of Connecticut river. The west range, which continues unbroken with few exceptions, nearly through the state, is, in general, much the highest. On the east they decrease gradually to the meadows, and sometimes to the edge of the river. These last are intersected by the rivers which run into the Connecticut, in a direction nearly from the northwest to the southeast. The vallies, or rather glens, which separate these ranges, are generally narrow, and mostly covered with hemlock, fir, and spruce.

About 100 miles from Massachusetts line, between the waters of White river and Winouski or Onion river, there passes off to the northeast, a range of high lands, frequently rising into very elevat-

ed mountains. This runs parallel with Connecticut river; the height being from ten to fifteen miles distant as far as the north line of the state. The western range continues northward, sometimes falling below the clouds, sometimes rising above them. Between these two ranges, extending from twenty to thirty miles in breadth, is a beautifull champaign country, second in fertility, perhaps, to none in Vermont.

On the west of the Green Mountain, there is one, and in some places, two or three ranges of small mountains, though frequently interrupted. These extend as far as the north line of the country of Rutland: From that, to the latitude of forty-five degrees, one hundred miles in length, and from twenty to thirty miles in bredth, between lake Champlain and the Green Mountain, is a fine tract of land, abounding with only moderate hills. Through this whole extent, few tracts can be found unfit for cultivation.

Mountains. The only range of mountains in the state is the Green mountains. They cross the south line in the western part of the state, and run north as far as Roxbury, where they divide. The highest chain continues north through Chittenden and Franklin counties to lat. 45°. The three highest summits are Killington Peak, Camel's Rump, in Huntington, and the mountain of Mansfield, in Stirling. This part of the range is pierced by the large rivers falling into lake Champlain. The eastern range winds between the sources of these rivers, and of those that fall into the Connecticut, through Roxbury, Williamstown, Washington, Orange, &c. and is the height of land between that river and the lake. The principal range from the north to the south line of the state is generally about 15 miles wide. The tops of the mountains are chiefly rocky, and covered with moss. The trees there are small, but very aged, and are pine, spruce, hemlock, and fir, intermixed with a few shrubs, and bushes. The spruce and hemlock trees on the top are often not more than 2 or 3 feet high; and their branches are so interwoven as to render the thicket impenetrable. The sides of the mountains are generally irregular and rough, particularly on the south side, which is often precipitous. Killington Peak, in Sherburne, is 3184 feet above the level of lake Champlain, at the mouth of Otter Creek, and 3454 feet above the ocean. Grand Monadnoc, in the N. E. corner of the state, is about as high as Ascutney.

Soil and Productions. The soil is very fertile and fitted for all the purposes of agriculture. It is generally deep, and of a dark color; rich, moist, warm, and loamy. Winter wheat is extensively cultivated on the west side of the mountains; but it does not thrive so well on the east side. Summer wheat, barley, oats, peas, and flax, flourish in all parts of the state. Indian corn thrives best in the intervales, but is raised in abundance every where. The pastures of Vermont are excellent, and the beef and mutton are very fine.

Rivers. The Connecticut is the eastern boundary. All the other rivers have their sources in the Green mountains. About 35 have an easterly direction, and fall into the Connecticut. Four or five small ones run northerly into lake Memphremagog. About 25

run westerly into lake Champlain, and two or three pursue the same direction to the Hudson.

Michiscoui rises in Belvidere, runs N. N. E. into Canada, where it proceeds W. some distance, and reentering the state at Richford, pursues the same course to Michiscoui bay. It is 75 miles long, and is navigable to the falls in Swanton, 7 miles.

The Lamoille proceeds from a pond in Glover, and runs N. of W. about 75 miles, to lake Champlain; which it enters in the north part of Colchester. It receives 14 tributaries, and is a fine, smooth, and pleasant stream, running through a rich, level, and fertile country.

Onion river, formerly called *French* and *Winooski* river, rises in Cabot, 14 miles W. of the Connecticut, and runs S. W. 20 miles, and then N. W. 60, to lake Champlain. It has 14 tributaries, and is navigable 5 miles. Its course is through a mountainous, but very fertile country. In Colchester, 6 miles from its mouth, the channel for 15 rods is through solid rock, 50 feet wide and 70 deep. In Waterbury, 30 miles higher, there is a similar passage, but the channel is much narrower, and a huge mass has rolled down from the ledge, and formed a complete natural bridge. The mouth of Onion river is 5 miles south of the Lamoille, and 3 north of Burlington bay.

Otter Creek rises in Peru, 30 feet only from the source of the Battenkill, which takes an opposite direction; and, running W. of N. 90 miles, falls into the lake at Ferrisburg, receiving in its course 15 tributaries. There are useful falls at Rutland, Pitsford, Middlebury, and Vergennes. To the last, vessels of considerable burden may come up 6 miles from the mouth. Between the falls the current is very slow, the water deep, and navigable for the largest boats.

The Wantastitquek, or West river, rises in Peru, 3 miles from the source of Otter Creek, and runs S. E. to the Connecticut, at Brattleborough, 37 miles. It receives 7 tributaries, is 15 rods wide at its mouth, and 12 feet deep.

White river rises in Kingston, runs S. E. to the Connecticut, in Hartford, 4 miles S. of Dartmouth college. It receives 7 tributaries, abounds with falls and rapids, and is 18 rods wide, and 10 feet deep, at its mouth.

The Poosoomsuc issues from a pond in Westmore, runs S. 40 miles, and falls into the Connecticut, at Barnet, where it is 12 rods wide, and 10 feet deep.

The Battenkill heads in Peru, runs S. W. 45 miles, and falls into the Hudson. White Creek is its only considerable tributary.

Deerfield river rises in Stratford, and runs south into Massachusetts, and meets the Connecticut at Deerfield.

Lakes. Lake Champlain has been described. It contains about 600 square miles,* more than two thirds of which are in Vermont.

Lake Memphremagog lies chiefly in Lower Canada. It is 40 miles long, but only 7 or 8 miles of the south end are in this state,

* Hutchins estimates its contents at 500,000 acres.

covering 15 square miles. Its chief tributaries in Vermont are Clyde, Barton, and Black rivers.

The rivers and lakes abound with various kinds of fish. Shad are taken in Connecticut river, as high as Bellow's Falls, over which they never pass. Salmon in plenty have heretofore been caught in the spring, the whole length of Connecticut river, and in most of its tributary streams; but few, however, of late years. A small species of salmon is taken in lake Champlain, the Winouski, or Onion river, La Moille and Missiscoui, but in none of the southern rivers. Perch, pike, pickerel, maskinungas, a very large species of pickerel, pout, mullet, and a fish called the lake bass, are found in great plenty. All the streams abound with salmon-trout.

There are handsome bridges built over the Connecticut at Bellows's Falls, Windsor, and Hanover.

Springs. Besides the numerous springs of fresh water, there are some chalybeate springs. There is a spring in Orwel, near Mount Independence, and another in Bridport, which produce the Epsom salts.

There is also a curious mineral spring on some low land over against the great Ox Bow, discovered about the year 1770.

Forests. The greatest part of the state is still in forest, and the mountains will probably continue so for ages to come.

Botany. The forest trees of Vermont are the white, yellow, and pitch pine, larch, hemlock, white and black spruce, fir, white, red, and black maple, white and red beech, white and black ash, white, black, and red or yellow birch, white and red elm, black, white, red, and chesnut oak, white hiccory, shagbark, butternut, chesnut, buttonwood, basswood or limetree, alder, hornbeam, wild cherry, sassafras, white and red cedar, white and black poplar or aspin and balsam, red and white willow and hacmatac. The esculent trees, shrubs, and vines are red, yellow, and thorn plum, black, red, and choke cherry, juniper, hazlenut, black currant, wild gooseberry, whortleberry, bilberry, blueberry, chokeberry, partridgeberry, pigeonberry, barberry, mulberry, black and fox grape, black and red raspberry, standing and running blackberry, brambleberry, cranberry, bush cranberry, strawberry, dewberry, and cloudberry. The vegetables are artichoke, groundnut, long and red potatoe, wild leek, wild onion, wild oat, wild pea, wild hop and Indian cucumber. The medicinal plants are bittersweet, angelica, black and red elder, sarsaparilla, pettymorel, Solomon's seal, maidenhair, arsmart, wild rose, golden thread, mallow, marsh mallow, labelia, senna, glivers, blue flag, sweet flag, skunk cabbage, garget, blood root, pond lily, elecampane, black, and Seneca snake root, pleurisy root, liquaria root, dragon root, and ginseng. The poisonous plants are thorn apple or stramonium, henbane, nightshade, ivy, creeping ivy, swamp sumach, baneberry, and white hellebore. In this list ought to be added the bayberry, prickly ash, witchhazel, Indian hemp, silk grass, and common sumach.

Mineralogy. Iron mines abound on the west side of the mountain. They are worked at Tinmouth, Shaftesbury, Rutland, Shoreham, Monkton, and Milton. Several others have been discovered.

A lead mine, with a very rich ore, has been found in Sunderland. Rich pyrites is found in Shrewsbury. In Rutland there is a fine vein of pipe clay. Marble is found in almost every town from Bennington to the Missicoui. In Bennington a quarry has been opened, which has peculiar fineness and beauty.

Natural Curiosities. In the western part of Clarendon there is a remarkable cave in the S. E. side of a mountain. The entrance is a narrow passage 2½ feet in diameter, which makes an angle of 40° with the horizon, and is 31½ feet long. It opens into a spacious room, 20 feet long, 12½ wide, and 18 or 20 high. The roof, sides and floor are of solid rock, rough and uneven. The water is constantly percolating through the roof, and has formed numerous stalactites. At the north end of the room there is an opening 40 inches in diameter, that is the commencement of another passage. Its direction is also oblique, its length 20 feet, and its sides full of jaggs and notches. It leads down to a second room, 30 feet long, 20 high, and 20 wide. In the spring this lower room is full of water.

In Dorset, also, there is a cave in the side of a mountain. It is an excavation through a solid marble rock. The entrance is 12 feet square, through a perpendicular ledge 20 feet in height. The passage is short, making an angle of 25° with the horizon, and opens into a room 20 feet high, 25 broad, and 150 long, the floor of which has the same angle with the passage. At the farther end 2 low, narrow passages run off to an unknown distance into the mountain. There is another cave at Danby equally remarkable.

A remarkable change was made in Poultney river, in the year 1783. This river empties into East Bay, which communicates with lake Champlain, at Whitehall, (formerly Skeensborough.) A little above its conjunction with East Bay, a ridge of land crosses in a northerly direction; the river running a northwesterly course, on meeting the ridge, turned suddenly to the northeast, and, keeping that course about half a mile, then turning westerly, passed the ridge over a very high ledge of rocks. For several years the river had gradually worn away the bank on the side of the ridge just in the bend where the river turned to the northeast. In May, 1783 during a remarkable freshet, the river, at this place broke the ridge, and, meeting no rock, it wore a channel sixty feet deep nearly to a level with the stream below, leaving the former channel and falls dry. The channel of the river, for a considerable way above this place, was lowered to a great depth, so that the low meadow lands, along the river, which before were overflowed with every freshet, have now become a dry plain. The earth thrown out of this prodigious chasm, filled East Bay, for several miles, where it had been navigable for vessels of forty tons burden, so that a canoe could with difficulty pass at low water, and even obstructed the navigation at Fiddler's Elbow, a narrow place near the entrance from Whitehall to South Bay. These obstructions (both at the Narrows and in East Bay) have since been mostly removed by the force of the current.

Connecticut river has lowered its channel from 80 to 100 feet perpendicular, through the whole length of this state. From the

various steps, ranged one above another, and which must, at various times, have formed the bank of the river, the alterations appear not to have been made at once, nor in continuance through the whole length of the river, but at remote and unequal periods. These changes appear, in some instances, to have been occasioned by the river suddenly shifting its channel, as was the case of the river at Fairhaven, mentioned above; in some instances, by a gradual attrition of the rocks, which, in some remote period of antiquity, formed numerous cataracts. On the plain where Dartmouth college stands, which is nearly 100 feet above the present bed of the river, logs of timber have been dug up at the depth of 25 and 30 feet below the surface. This is about the depth of the river at present in the highest freshets, and of what is called the made or meadow lands on the river, and both are formed in the same manner with alternate strata of clay, sand and gravel. Some of the earth which has in a lapse of time been scoped out of the immense chasm, has doubtless been carried into the sea; while large quantities have served to fill the numerous lakes, of larger or smaller dimensions, through which the river once made its way.

In Burlington, on the Winouski, a little above the chasm worn in the rocks, as mentioned above, is a large bow of interval land. On a part of this which now lies considerably higher than the river, a well was dug by the owner, in the summer of 1786. Through the whole depth of the well, which was fifty feet, the earth was composed of a fine river sand: Twenty-five feet below the surface, were dug up a large number of frogs in a torpid state, which were found bedded in the earth like small stones. After being exposed a short time to the air, they discovered signs of life, and soon were able to leap about. They did not, however, continue long, but presently became languid, and died. This was probably owing to their being at once exposed to the burning heat of the summer's sun, without water. They might unquestionably have recovered the usual vigor of the species, had more attention been paid to them. These frogs must have been buried in the spot where they were found, by some extraordinary inundation of the river, while in that state of torpor in which they always pass the winter in those climates, and have continued in that situation for centuries. Forty-nine feet below the surface, in the same well, was found a log of timber.

In the town of Thetford is a remarkable pond of about 9 acres. It lies on a flat, which descends on every side except on the north. It is fed by no stream, nor is there any stream issuing from it. The water is 70 or 80 feet deep, and in summer falls two or three feet. It contains abundance of fish, particularly perch, barrels of which were formerly caught by the inhabitants in a season. It is but about 4 rods from the west bank of Connecticut river, which in this place is nearly 150 feet high. The road passes between the pond and the river's bank.

In the town of Glover, in the northern part of this state was a pond about 3 miles long and one wide. From this pond issued toward the south a considerable branch of Lamoille river, which emp-

ties into lake Champlain. A short distance north of this, was a smaller pond, from which issued a branch of Barton river, which empties into Lake Memphremagog. On the 6th of June, 1810, a number of men, from this and the neighboring towns, cut a small channel from the north end of the large pond with a view to connect it with the smaller one, and to increase a mill stream which issued from it. After digging about four feet from the margin of the pond through a body of gravel and earth, exceedingly hard, which had resisted the waves and pressure of the water for centuries, they came to a bed of quicksand, into which the water entered from the pond, through this new channel, and in a few moments formed a dismal gully or hole, nearly 60 feet deep, and of considerable width. presently, the body of water in the pond rushed toward this outlet with such force as to push nearly half an acre of the opposing bank, with the trees all standing, with a tremendous crash, over a precipice to the north; and, in a few moments, the rushing torrent made for itself a channel from 10 to 15 rods wide, and 150 feet deep to the bed of the pond, and the whole mass of water in the pond rushed at once down the descent toward Barton river The small pond was in an instant swallowed up and carried off in the overwhelming torrent, which, in a course of 6 or 8 miles, formed a channel of 10 or 12 rods wide, and 20 feet deep, and through the whole extent of Barton river carried off its mills and bridges and covered thousands of acres of excellent land, from 4 to 16 feet deep, with sand, wood, &c. destroying all the crops, intervales, &c. The damage was estimated at from 20,000 to 60,000 dollars. No human lives were lost.

NEW-HAMPSHIRE.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORICAL EPOCHS. GOVERNMENT. POPULATION. MILITIA. MANNERS. LITERATURE. TOWNS. MANUFACTURES. TRADE. BANKS. CANALS AND TURNPIKES.

Extent. New-Hampshire lies between lat. 42 41 and 45 11 N. and between lon. 70 40 and 72 28 W. It is 168 miles long, from north to south. Its greatest breadth is 90 miles; in lat. 44° it is 55 miles, and at the northern extremity but 19. It contains 9,491 square miles, or 6,074,240 acres.

Boundaries. N. by Lower Canada; E. by Maine, and the Atlantic; S. by Massachusetts; and W. by the west bank of the Connecticut; no part of that river is within the jurisdiction of Vermont. The extent of sea coast is 18 miles.

Divisions. This state is divided into six counties, viz.

Counties.	No. of towns.	Population in 1810.	Chief towns.	No. of inh.
Coos	24	3,991	Lancaster	717
Grafton	35	28,462	Haverhill	1,105
			Hanover	937
Cheshire	35	40,988	Charleston	1,501
			Keene	1,646
Hillsborough	42	49,249	Amherst	1,554
Rockingham	46	50,175	Exeter	1,759
			Portsmouth	6,934
			Concord	2,393
Strafford	31	41,595	Dover	2,228
			Durham	1,449
Total	213	214,460		

Name. This territory received the name of *New-Hampshire* from Capt. Mason, the original patentee. (In the earliest grant, made to Mason and Gorges in 1622, it is, however, styled *Laconia.*) In the histories of Indian wars it is also called *Captain Mason's Patent*, and *Piscataqua*, from its principal river.

History. This tract of country was discovered in 1614, by Capt. John Smith. The first settlement was made at the mouth of the Piscataqua, on the south bank, and also 8 miles farther up at what is now Dover, in 1623. The towns governed themselves, till 1641, when they were taken under the jurisdiction of Massachusetts. In 1675, occurred the first Indian war, called Philip's war; which pervaded the whole of New-England. In September, 1679, New-Hampshire was separated from Massachusetts, and made a royal government. In 1689 occurred the second Indian war, called king William's war; in 1703, the third, called queen Anne's war, in which the Indians were assisted by the Canadian French; in 1723, the fourth, called the Three Years' or Lovell's war; and, in 1754, the fifth and last, which terminated in 1760, in the reduction of Canada. In 1775 New-Hampshire, in common with the other states, ceased to be a royal province, and the same year a temporary constitution was formed for its government. The present constitution was agreed on in 1783, and went into operation in June, 1784. An insurrection took place in 1786. The insurgents assembled at Exeter and took the legislature prisoners, and held them so several hours. The citizens appearing in arms crushed it in its infancy.

Religion. The principal denominations of Christians in this state, are Congregationalists, Presbyterians, Episcopalians, Baptists, Universalists, and Quakers. There is a small society of Sandemanians in Portsmouth, and another of Shakers at Enfield.

"The people in general throughout the state, are professors of the Christian religion, in some form or other. There is, however, a sort of wise men, who pretend to reject it; but they have not yet been able to substitute a better in its place."*

* Belknap.

Government. The executive power is vested in a governor and council. The governor is chosen by the people annually. He must be worth 500*l.* If there is no choice, the legislature fill the vacancy. The council consists of 5 persons, 2 chosen by the senate, and 3 by the representatives. The legislature are called *The General Court.* Each branch has a negative on the other. The senate consists of 12 members. A senator must be worth a freehold of 200*l.* Each town, containing 150 rateable polls, sends one representative and every addition of 300 polls entitles it to another. A representative must be worth 100*l.* The judiciary is composed of a superior court, having four judges, which makes two circuits annually through the counties; of an inferior court in each county, having four judges, and sitting four times a year; of a court of general sessions in each county, consisting of the justices of the peace, and sitting the same week with the inferior court; of a court of probate in each county, having one judge, and sitting monthly; and of justice's courts. All judges hold their offices during good behaviour.

Population. The number of inhabitants was, in the year

1749	-	-	30,000	1790	-	- 141,885
1767	-	-	52,700	1800	-	- 183,858
1775	-	-	82,200	1810	-	- 214,460

New-Hampshire at the first census, in 1790, was the 10th state in the union, in point of population; at the second, the 11th, and at the third the 14th.

Militia. The number of inhabitants in this state between 16 and 45 years of age, according to the last census, is 39,396. This fact will enable any one to form a pretty correct idea of the military strength of this state. The proportion of the actual militia to the whole number of males between 16 and 45, in New-England, is about as 10 to 19. The militia of New-Hampshire is organized in the same manner as in Massachusetts.

Manners and Customs. See New-England.

Literature. The college of New-Hampshire is in Hanover. It was called Dartmouth college from William, earl of Dartmouth, one of its principal benefactors; and stands in a plain, about half a mile east of Connecticut river. The charter was procured by rev. Dr. Wheelock, its first president, in 1769. The funds of the college consist chiefly of lands amounting to about 80,000 acres. The revenue of the college arising from this source amounts, at present, to about 1333 dollars a year. This with the tuition makes an income of 3500 dollars. The officers of the college are a president, who is also professor of civil and ecclesiastical history, a professor of mathematics and natural philosophy, a professor of languages, and two tutors. Beside these there is a professor of chemistry, and a professor of medicine, connected with the medical department. The number of undergraduates is upwards of 170, and 50 in addition, who attend the lectures and instruction in the medical department. For the medical establishment an edifice is to be erected this year, at the expense of the state, to be of brick, 75 by 32 feet and 28 in

height. The institution is possessed of a very valuable chemical and [illegible] apparatus. The library contains about 4000 volumes.

Connected with the college is Moore's charity school. This school is subject to a sole corporation, whose responsibility is well secured in its connexion with the college, and in its relation with 'the society in Scotland for propagating Christian knowledge." Its funds, beside an edifice, consist of nearly 12,000 acres of land in Vermont and New-Hampshire, mostly in the former, and in part disposed of by long leases; about 11,000 dollars deposited in the funds, and in the care of the society in Scotland and expressly destined for the education and religious instruction of the aborigines. The school has uninterruptedly existed about 60 years, and has been essentially useful, particularly in promoting improvement of manners and religion among a number of savage tribes, within and bordering on the United States.

There are several academies in the state. That at Exeter, called Phillips's Exeter academy, was incorporated in 1781 and has funds amounting to about $ 80,000, and between 60 and 80 students. It is in high reputation. There are others at New-Ipswich, Atkinson, Amherst, Charleston, and Concord.

Every town is obliged by law to have one or more common schools.

Towns. Portsmouth is the largest town in the state. It stands 2 miles from the mouth of the Piscataqua, on the south bank. The harbor is one of the best on the continent, having a sufficient depth for vessels of any size. It is protected by the surrounding country from every wind, and is never frozen. It is so well fortified by nature, that only a small expense is necessary to render it impregnable. A light house, with a single light, stands at the entrance of the harbor. Here are 3 Congregational churches, 1 Episcopalian, and 1 Universalist; a state house, a work house, and 2 banks. Population in 1800, 5,339; and in 1810, 6,934.

Exeter stands at the head of navigation on the Swamscot, a branch of the Piscataqua, which has here sufficient depth for vessels of 500 tons. It is well situated for a manufacturing town, and contains a duck manufactory, 6 saw mills, a fulling mill, slitting mill, paper mill, snuff mill, 2 chocolate and 10 grist mills, 2 printing offices, and iron works. Saddles also are made here very extensively. It contains 2 Congregational churches, an academy, court house, and gaol. Population, in 1810, 1,759.

Concord is a pleasant flourishing town, on the west bank of the Merrimac, over which there are here two bridges. Much of the trade of the upper country centres here. The canals and other improvements lately made on the Merrimac, which have opened a boat communication between this town and Boston, have increased the importance of this place. It will probably become the permanent seat of government. It has 2,393 inhabitants.

Charleston is a pleasant town on Connecticut river, built chiefly on one street, and containing a church, court house, and gaol. In the south part of the town lies a large and beautiful interval. Population 1,501.

The village of Dartmouth in Hanover, is 36 miles above Charles-

ton, and stands on an elevated plain. It is laid out in squares, and is well built, containing a church, academy, college, and chapel, and 2,135 inhabitants.

Haverhill is at the Lower Coos or Great Oxbow, a singular bend in the Connecticut, forming one of the most delightful intervals in the world. It has two churches, and a court house, and 1,105 inhabitants.

Keene is one of the prettiest towns in New-England, and pleasantly situated a few miles east of the same river, having a church, court house, gaol, and 1,646 inhabitants.

Manufactures. In addition to what we have said on this head, (see Exeter) we observe, that furnaces and iron works are established in the township of Franconia, in the N. W. part of the state. Near 90 looms in the township of Hanover furnish a sample of the effects of the growing spirit of the people for linen and woollen manufactures in the western part of the state. The people in the country, generally, manufacture their own clothing and considerable quantities for exportation. The other manufactures are pot and pearl ashes, maple sugar, bricks and pottery, and some iron; the latter not sufficient, however, for home consumption, though it might be made an article of exportation. A mine of iron is said to have been discovered lately in Enfield, which affords a prospect of future public benefit.

Trade. The chief articles of export are timber of various kinds, dried and pickled fish, whale oil, tar, flax seed, beef, corn, oxen and cows, horses, sheep, bricks, pot and pearl ashes. The amount in 1810 was $ 234,650, and in 1798, $ 723,242. This decrease was owing to the restrictions on American commerce. The imports consist of West India rum, gin, molasses, wine, porter, sugars, tea, coffee, cotton, cheese, nails, cordage, salt, sea-coal, steel, lead, and grindstones. About 27 schooners and 20 boats with 250 men, exclusive of those belonging to the isles of Shoals, are annually employed in the fisheries. The product of these fisheries, in 1791, was 25,850 quintals. The inhabitants, in the S. W. parts of the state, trade with Boston; in the middle and north as far as Haverhill, with Portsmouth; and farther north, with Portland.

Banks. The following banks are incorporated in the state, viz. New-Hampshire bank, New-Hampshire Union bank, and Portsmouth bank at Portsmouth; Stafford bank at Dover; Exeter bank at Exeter; two Concord banks at Concord; Cheshire bank at Keene; Hillsborough bank at Amherst; Coos bank at Haverhill. The three last are not now in operation.

Canals and Turnpikes. Five canals have been formed on Connecticut river, 2 of which are within the limits of New-Hampshire. By these the navigation is opened in this fine river for nearly 250 miles from its mouth. A short canal has been formed round Amoskeag falls in the Merrimac, and several others around falls above. Another has been cut through the marshes of Hampton and Salisbury, 8 miles, and meets the Merrimac opposite Newburyport. Six turnpike roads are constructed intersecting the most important parts of the state, viz. from Walpole to New-Ipswich;

from Windsor to Amherst; from Concord to Portsmouth; from Concord, through Londonderry, to Boston; from Hanover to Boscawen, and from Haverhill to Warren. Eight others have been formed to facilitate intercourse in different directions; and some beside have been undertaken, and will soon be completed.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. MOUNTAINS. CURIOSITIES.

Climate. SEE New-England.

Face of the Country. The shore of New-Hampshire is chiefly a sandy beach, within which are salt marshes intersected by creeks. Only two bluffs appear on the coast, the Great and Little Boar's Heads; both in Hampton. For 20 or 30 miles from the sea the country is either level, or made up of little hills and vallies. Then commences the first range of mountains. Beyond these are several detached mountains of considerable elevation. Still farther back is another range; east of the Merrimac, and between that and the Connecticut is the principal range in the state. The mountains are all covered with wood; the highest only have their tops bare. The country on the whole may be called mountainous.

Soil and Agriculture. The soil of the state is generally very fertile, and hardly any such thing as a barren is known. The interval lands on the large rivers are the richest: they yield great crops of hay, and from 40 to 50 bushels of wheat to the acre; while the uplands yield 20. The uplands are very rich pasture. The soil in the new lands may be distinguished by the trees growing on it. White oak and chesnut land is hard and stony, and needs ploughing to be fit for grass or pasture, but is good for Indian corn. Pitch pine land is dry and sandy, will bear a crop or two of rye or maize, and must then lie fallow. White pine land is light and dry, but has a deeper, stronger soil, yet must be ploughed for grass. If the oil nut is intermixed, the soil is usually a deep moist loam. Spruce and hemlock denote a thin, cold, soil; which will bear a small crop of grass, without ploughing, and has a natural tough sward, which must be removed. If birch is intermixed with them, it denotes a moist soil excellent for grass. Beech and maple land has a warm, rich, loamy soil, fitted for grass, maize, or grain, without ploughing, and is most easily cultivated: if neglected, it becomes meadow land. Land covered with black and yellow birch, white ash, elm, and alder, has a deep, rich, and moist soil, and will admit grass and grain without ploughing. Red oak, and white birch, denote a soil that is very strong and lasting. Of all grains winter rye thrives best on new land, and maize or barley on old. Maize, however, succeeds very well in the new; but barley, flax, oats, and peas will not thrive till the land has been cultivated some years. Agricultu-

ral improvements are greatly increased in the western part of the state. Orchards are multiplying and productive.

Rivers. The Connecticut, Ameriscoggin, and Saco rise in New-Hampshire, and the western bank of the first, is its west boundary.

The Merrimac is formed by two branches. The northern, the Pemigewasset, has its sources in Moosehillock, and in a mountain lying between that and the White mountains. It is a very rapid river, has many falls, and runs south about 60 miles; receiving Baker's river, the stream of New-Chester pond, and Smith's river on the west, and Squam river, from Squam lake, on the east. In Sanborntown it is joined by the Winnipiseogee, the eastern branch, a short stream, which comes from Winnipiseogee lake on the N. E. Here the united stream takes the name of Merrimac river; and, after a course of about 65 miles, in a S. by E. course, and 35 in one N. N. E. falls into the sea at Newburyport. Its principal tributaries from the west are Blackwater, Contoocook, Piscataquoag, Souhegan, and Nashua; from the east, Suncook and Beaver. Hookset falls in the Merrimac are 8 miles below Concord, which have been lately canalled. The river falls 15 feet in 30 rods. Eight miles lower down is Amoskeag fall, which consists of three large pitches, in half a mile; in all 80 feet, which have also been canalled. It has another fall called Patucket falls in Massachusetts, which have experienced the same improvement.

The Contoocook, the chief tributary of the Merrimac, rises in Massachusetts, and runs N. N. E. 60 or 70 miles, emptying a little above Concord.

The Piscataqua heads in a pond in the N. E. corner of Wakefield, and pursues a S. S. E. course to the sea, forming the boundary between Maine and New-Hampshire. From its head to the falls in Berwick it is called Salmonfall river; and thence to the Cocheeho, the Newichawannoc. Its whole length is about 50 miles. Seven miles from its mouth, it receives the western branch, which is formed by the Swamscot from Exeter, the Winnicot from Greenland, and the Lamprey, which divides New-Market from Durham. These empty into a bay called Great bay, 4 miles wide, which is soon contracted into a lesser bay, and then receives Oyster and Back rivers, and joins the main stream at Hilton point. Below this the river is very rapid, and never freezes. Each of these little streams is navigable to its lower falls, about 12 miles from Portsmouth, where there is a landing place, and a convenient situation for a trading village. Six miles above Portsmouth, a bridge was built over the Piscataqua in 1794. It is 2600 feet long, and is built chiefly on piles. The remainder is a stupendous arch, with a chord of 244 feet, over water 46 feet deep. It cost 68,000 dollars.

Upper Ammonoosuc rises on the north side of the White mountains, and runs N. N. E. about 15 miles where there is a carrying place of 3 miles, to the Ameriscoggin. It then turns west, and runs 20 miles to the Connecticut, emptying at Northumberland. Israel's river, a smaller stream from the same mountains, empties at Lancaster. Lower or Great Ammonoosuc heads on the west side of the White mountains, a few rods from the source of the Saco, and

pursues a southwesterly course of 40 miles, to the Connecticut, emptying between Bath and Haverhill, where it is 100 yards wide. It is a rapid and furious stream. Two miles from its mouth it receives Wild Ammonoosuc, from Moosehillock, which by a rain of 2 hours becomes a violent torrent. Ashuelot river heads in Sunapee mountain, and runs S. S. W. to the Connecticut, about 40 miles, emptying at Hinsdale.

Lakes. Winnipiseogee lake is the largest in the state; being 24 miles long from S. E. to N. W. and from 3 to 12 miles broad. Several long necks of land project into it from the N. and it contains a number of islands. It is frozen three months in the year, and many sleighs and teams cross it on the ice. In summer it is navigable its whole length. Umbagog, the next largest lake, is in the northeastern part of the state. A small portion of it is in Maine, and it discharges its waters by a short stream from the E. into the Ameriscoggin. Squam lake, N. W. of the Winnipiseogee, is 5 miles long and 4 broad. Ossapee lake lies E. of Ossapee mountain; and, through a river of the same name, empties its waters into the Saco. Sunapee lake, N. of Sunapee mountain, is 8 miles long and 3 broad, and empties through Sugar river into the Connecticut. Messabesic is a large pond in Chester, and discharges its waters into the Merrimac, from which it is distant 4 or 5 miles to the eastward.

Mountains. The first range, about 30 miles from the shore, is called the Blue Hills. It passes through Rochester, Barrington, and Nottingham, and is no where of any great elevation. Moose mountain, Mount Major, and several other detached eminences, lie S. and S. E. of Winnipiseogee lake. Farther back the mountains rise higher, and assume more of a connected character. In this range the highest summits are Ossapee, Choconia, and Kyarsarge. The White mountain range enters the state in the western part, and passes between the waters of the Connecticut and Merrimac, pursuing a course N. by E. till beyond the source of the Pemigewasset, it bends more to the right, and proceeds N. E. by N. towards the sources of the Ameriscoggin. The White mountains are a spur from the main range, and have already been described. Moosehillock, the loftiest summit in the main range, is about 4500 feet high. Sunapee is in the same chain farther S. and still farther the Monadnoc, the height of which is 3254 feet above the sea. Its base is 5 miles long from N. to S. and 3 broad. Its summit is a bald rock; on some parts of it are large piles of broken rocks; and the sides present volcanic appearances. These are also discoverable on West River mountain, in Chesterfield, on Connecticut river. About the year 1730 the garrison of fort Dummer was alarmed with frequent explosions, and with columns of fire and smoke emitted from the mountain. The same appearances were exhibited in 1732.

Curiosities. In the township of Chester, on the main road from Newburyport to Dartmouth College, is a circular eminence, half a mile in diameter, and 400 feet high, called Rattlesnake hill. On the south side, ten yards from its base, is the entrance of a cave

called the *Devil's Den*, in which is a room 15 or 20 feet square and 4 feet high, floored and circled by a regular rock, from the upper part of which are dependent many stalactites, nearly in the form and size of a pear, and when approached by a torch, throw out a sparkling lustre of almost every hue. Many frightful stories have been told of this cave, by those who delight in the marvellous. It is a cold, dreary, gloomy, place.

In the town of Durham is a rock, computed to weigh 60 or 70 tons. It lies so exactly poised on another rock, as to be easily moved with one finger. It is on the top of a hill, and appears to be natural.

In the township of Atkinson, in a large meadow, there is a small island of 6 or 7 acres, which was formerly loaded with valuable pine timber, and other forest wood. When the meadow is overflowed, by means of an artificial dam, this island rises with the water, which is sometimes 6 feet. Near the middle of this island is a small pond, which has been gradually lessening ever since it was known, and is now almost covered with verdure. In this place a pole 50 feet long has disapeared, without finding bottom. In the water of that pond, there have been fish in plenty, which, when the meadow has been overflowed, have appeared there, and when the water has been drawn off, have been left on the meadow, at which time the island settles to its usual place.

ISLANDS.

The Isles of Shoals, 8 in number, lie 9 miles S. E. of Portsmouth light house, and 21 N. E. from the light houses of Newburyport, in lat. 42 59 N. long. 70 30 W. from London. They were discovered by Capt. Smith in 1614, and called Smith's isles. They consist of barren rocks, and are inhabited by about 100 souls, who subsist by fishing. Before the revolutionary war, these isles contained about 600 inhabitants who carried on the fishery to a great extent. The *dumb fish*, as it is called, of these isles, is in high esteem, at the tables of connoisseurs in fish.

These islands are partly in Massachusetts, and partly in New-Hampshire, and have been, till lately, neglected by both, as to the moral and religious instruction of their inhabitants. See a full account of these isles in the Historical Collections, vol. vii. p. 242.

DISTRICT OF MAINE.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. ORIGINAL POPULATION. HISTORICAL EPOCHS. RELIGION. GOVERNMENT. POPULATION. MILITIA. MANNERS AND CUSTOMS. LITERATURE. TOWNS. ROADS. EASTERN LANDS. BANKS. COMMERCE AND MANUFACTURES.

Extent. THIS District lies between lat. 43 4 and 48 12 N. and between lon. 64 54 and 70 40 W. Its shape is nearly that of a rhombus. The northern, eastern, and southern frontiers are each about 240 miles long, and the western 160. The average length and breadth is about 200 miles, and there are about 40,000 square miles, or 25,600,000 acres, nearly one half of which are settled, or settling.

Boundaries. N. by Lower Canada, from which it is separated by the highlands; E. by New-Brunswick, from which it is separated by the St. Croix, and a line drawn due north from its source to the highlands; S. E. and S. by the Atlantic; W. by the Piscataqua about 40 miles, and a line running thence due north, which divides it from New-Hampshire.

Divisions. This District is divided into 8 counties, viz.

Counties.	Inhabitants.	Chief towns.
York	41,877	York
Cumberland	42,831	Portland
Kennebec	32,564	Augusta
Somerset	12,910	Norridgewoc
Lincoln	42,992	Wiscasset
Hancock*	30,031	Castine
Washington	7,870	Machias
Oxford	17,630	Paris

Original Population. The Abenaquis or Tarrateens, occupied the whole of this district, before it was settled by Europeans. They were considerably numerous. The Norridgewocs, a tribe of the Abenaquis, were situated on the upper part of the river Kennebec. The Penobscots lived on the river Penobscot, and possessed the eastern country. Before the reduction of Canada most of the Norridgewocs withdrew thither. The rest of that tribe, and all the Penobscots, put themselves under the protection of the English. In 1795 there were 7 of the former tribe in and about Norridgewoc, and about 300 of the latter on Penobscot river. The Penobscots have since increased in consequence of the encouragement of their Romish priests to early marriages.

* It is contemplated soon to divide this county.

Historical Epochs. The first attempt to settle the country in 1607.

The establishment of a Dutch fort at New-Castle.

The grant of the district by the British crown to Sir Ferdinand Gorges, in 1635. He appointed a governor and council.

The establishment of a government by the settlers in 1647.

The submission of the inhabitants to the government of Massachusetts in 1652.

The incorporation of the district with Massachusetts in 1691, by a charter from William and Mary.

The various wars with the savages, which ended in their almost total extirpation.

The unsuccessful attempts of some of the inhabitants in 1785, 1786, and 1802 to effect, in a peaceable manner, a separation of this district from Massachusetts Proper, and its erection into an independent state.

Religion. Congregationalists are far the most numerous. The number of their churches is 91. Next to them are the Baptists. There are a few Quakers, many Methodists, some Episcopalians, Catholics, and Universalists.

Government. Maine is an integral part of Massachusetts; and would not need a separate description, did not New-Hampshire intervene between the two divisions.

Population. In 1790 there were 96,540 inhabitants. In 1800, 151,719. In 1810, 228,705. The increase in the first ten years was 55,179 or more than 57 per cent. The increase in the last ten years was 76,986, or more than 50 per cent. The number of inhabitants in 1750 did not exceed 10,000.

Militia. The militia of Massachusetts are classed in thirteen divisions, of which six are in the district of Maine.*

Manners and Customs. The first settlers of the interior of Maine were principally employed in procuring lumber. A few of them were hunters and fishermen. Their character partook of the unsettled and roving nature of their pursuits, and the vices incident to such a life were unhappily prevalent. Since that period they have become farmers, and are improving in their circumstances and their manners.

Literature. Schools are maintained in most of the towns, and in many of the plantations. Seven academies have been established in the district; at Portland, Hallowell, Berwick, Fryeburg, Bath, Hamden, and Machias. They are all endowed with handsome grants of public lands. *Bowdoin College*, in Brunswick, was incorporated in 1795. It is named after the late Hon. *James Bowdoin*, whose benefactions amounted to $10,000. He bequeathed to it his valuable library. The legislature has endowed it with 5 townships of land. These will in time, be a most valuable fund to the institution. It is entrusted to a board of 13 trustees, and another board of 45 overseers. The buildings are two colleges, and one chapel. The situation is pleasant, and the institution prosperous.

* See Massachusetts Proper. Article Militia.

Towns. PORTLAND is built on a peninsula in Casco Bay, and was incorporated in 1786. The harbor is deep, safe, capacious, and seldom frozen over. It is one of the most commercial towns in Massachusetts, and contains 7,169 inhabitants. Here are 7 churches, 3 Congregational, 1 Baptist, 1 Episcopalian, 1 Methodist, and 1 Quaker, a brick academy and a handsome court house. Forty two vessels were built here in 1810, measuring 10,726 tons. A light house was erected in 1790 on a point of land called Portland Head, at the entrance of the harbor.*

BATH is a very flourishing town on the western side of the Kennebec, 16 miles from the sea, at the head of winter navigation. It is the 8th commercial town in Massachusetts, and the 3d in population in Maine, containing 2,491 inhabitants. It has two Congregational churches.

WISCASSET is on the Sheepscot, 10 miles E of the Kennebec, and 12 from the sea. The river is here navigable for the largest ships. The town contains 2,083 inhabitants. The village has 4 streets running parallel with the river, crossed at right angles by another 140 feet wide, leading to the long wharf, which is 550 feet in length. On this street stand the public buildings, which are a Congregational church, and a court house. The town is healthy. More people die of a consumption than of any other disease.

Hallowell is a pretty village on the western side of the Kennebec, 40 miles from its mouth. It is healthy, and contains 2,068 inhabitants.

Augusta is 3 miles above Hallowell, and contains 1,805 inhabitants.

YORK is 9 miles from Portsmouth, and contains 2 Congregational churches, and 3,046 inhabitants. It was settled in 1630, and was then called Agamenticus. York river passes through the town. Over this river, about a mile from the sea, a bridge was built in 1761. The bridge stands on 13 piers and was planned and conducted by Major Samuel Sewall, an ingenious mechanic, and a native of the town. The model of Charles river bridge was taken from this, and was built under the superintendance of the same gentleman. It has also served as the model of Malden and Beverly bridges, and has been imitated even in Europe by those ingenious American artists Coxe and Thompson.

Roads. A road has been surveyed from Hallowell, on the Kennebec, to the river Chaudire. It will cross the highlands. The distance will be from 200 to 250 miles.

Another road is laid out from Bangor, on the Penobscot, to Quebec, a distance of about 200 miles; course N. 40 degrees west.

* It is a stone edifice 72 feet high, exclusive of the lanthorn. The following directions are to be observed in coming into the harbor. Bring the light to bear N. N. W. then run for it, allowing a small distance on the larboard hand, and when abreast of the same, then run N. by W. This course will give good anchorage from a mile to a mile and a half. No variation of the compass is allowed. A Column or distinguishing Land-mark, in the form of a pyramid, has lately been erected on Cape Elizabeth, ½ of a mile N. W. from the S. E. extremity of the Cape;—it is stone, the lower half painted white, the upper black, height 50 feet from the foundation, 125 feet above the level of the sea. The column bears from Portland light S. 1° W. distant 4¼ miles.

It passes through Brownville, thence to the east of Moosehead lake, thence across the western branch of Penobscot river to St. Joseph's church, on the Chaudire, which is about 40 miles from the city of Quebec, to which there is a good road all the distance. The country through which this road is to pass was explored for the first time, by any white person, in the spring of 1810, by Dr. Isaac Wilkins and Capt. Ezekiel Chase, and found to be in general good for roads and settlements. After passing Brownville 20 or 25 miles, in a northerly course, over a ridge of mountains, the country thence to the Chaudire is level, variegated only with gentle swells. Another important road has been surveyed from the Penobscot to a new settlement in the northeast corner of Maine, on St. John's river.

Eastern Lands. Large tracts of land in Maine, belonging to he state, are thus denominated. In June, 1795, the state had sold of these lands to the amount of $ 269,000, which had gone into the treasury, beside a contract for 2,839,453 acres, the amount of which is not known, of which the state retains 103,680 acres, for masts. At the period above mentioned, the state had granted for the encouragement of literature, and for other useful and humane purposes, 431,000 acres, and had yet at their disposal about 8,700,000 acres. A considerable part of this has been since sold, or granted for useful and benevolent purposes.

Banks. The banks in Maine are the following, viz.

Names.	Places.	Capitals.
Portland Bank	Portland	$ 300,000
Maine Bank	Portland	300,000
Lincoln and Kennebec Bank	Wiscasset	200,000
Saco Bank	Saco	100,000
Hallowell and Augusta Bank	Hallowell	200,000

Commerce and Manufactures. Lumber is the great article of export; particularly masts, and every species of ship timber. White pine and oak boards are exported in immense quantities. Dried codfish, pickled salmon and shad are also a considerable article of commerce.

The manufactures of the district are done in families. They consist of coarse cloths and utensils for husbandry. See this article in Massachusetts Proper.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. BAYS. RIVERS. LAKES. MOUNTAINS. MINERALS. ANIMALS. BURNT LANDS.

Climate and Seasons. THE winters though severe are regular and healthy, they commence in November and close about the last of March. The ground, the most of this period, is covered with

snow, and the harbors, ponds, and rivers frozen over. Apples flourish in the interior but not on the coast. Indian corn grows to a good size. Pears grow in all parts of the district. Probably there is no country in which the inhabitants enjoy a purer air, or a more healthy climate. The cold in the district of Maine, as well as in every other part of North-America, is found to be more intense than in the same degrees of latitude on the eastern continent. The weather in this country is more regular in the winter than in the southern states. Vegetation commences here later than in more southern parts of New-England, but is much more rapid.

Face of the Country. The district of Maine is an elevated country, but rather uneven than hilly or mountainous. The land rises very gradually from the coast, and most of it is capable of cultivation. There is no range of mountains of any consequence, except the high land on the northern frontier. Agamenticus is a single mountain in York, in lat. 43 16, of considerable height, and a noted landmark for mariners.

Soil and Agriculture. The soil of this country west of the Androscoggin is rather light and lean, particularly on the coast. With proper cultivation, however, it yields abundantly. The land on the Kennebec, and between that river and the Penobscot, is excellent and well adapted to tillage and pasture. East of the Penobscot it is less productive. The coast furnishes large supplies of rockweed. It is an excellent manure and beginning to be extensively used. It is estimated that there are 4000 acres on the coast, each yielding annually 20 loads. Ten loads spread upon an acre are reckoned a rich manure for 3 years. This is an excellent grazing country, and supports large stocks of cattle. Wheat, rye, barley, oats, peas, hemp, and flax flourish and are extensively cultivated. Hops are the spontaneous growth of the country. Apples, plums, cherries, pears, grapes, raspberries, gooseberries, currants, blackberries, and cranberries are among the wild fruits.

Bays. Casco bay puts up between Cape Elizabeth and Small Point. It is 30 miles wide at its mouth, and 14 deep, contains a great number of islands, and forms a most excellent harbor, for vessels of any burden.

Penobscot bay, the estuary of Penobscot river, is about 16 leagues across at the mouth. It puts up between Naskeag and Thomastown, about 35 or 40 miles into the interior, and is also full of islands, one of which, Long Island, in the middle of the bay, is 15 miles long, and from 2 to 3 broad, forming a township called Illesborough.

Frenchman's bay lies farther east. It has the main on the W. N. and E. Mount Desert on the S. and W. S. W. About the centre of this bay is a range of islands, called the Porcupines, which lie in a crescent, and landlock the inner harbor, leaving four passages, two of which have 30 or 40 fathoms of water and not a ledge or rock in the way. A cable's length from these islands there is 20 fathoms of water. Within the Porcupines is a most beautiful harbor, large enough to hold 200 sail at anchor, with 18 or 20 fathoms of water, a bottom smooth and muddy. Within the bay are

four harbors, where a thousand sail might ride secure from every storm. The tide here rises 22 feet. In different parts of Frenchman's bay are 24 saw-mills and five grist-mills.

Passamaquaddy bay is the estuary of the Scoodic and the St. Croix, and forms a part of the boundary between Maine and New-Brunswick. The coast throughout is every where indented with bays and lined with islands.

Rivers. The St. John, the largest river in the district, rises in the highlands, and runs probably more than half its course in Maine. It has already been described.

The St. Croix is an inconsiderable stream, noticeable principally as forming part of the eastern boundary of the United Sates. The Scoodic is larger, and farther west. The western branch of the Penobscot rises west of Moosehead lake, within 20 miles of the branches of the St. Lawrence, and runs, at one point, within two miles of that river. The eastern branch runs through several small lakes. After their junction the course of the river is nearly S. to Penobscot bay. The navigation for boats is unobstructed for about 70 miles. Vessels of 30 tons come within a mile of the head of the tide. The whole length of the river is about 300 miles. This river, for beauty and usefulness, may be considered as the first in the district. There is none that equals it for ease of navigation, or exceeds it in plentifulness of fish, the excellency of its timber, or the commodiousness of its mill privileges.*

The Kennebec is the second river in the district. It derives its name from a race of sagamores by the name of *Kenebis.* Its western branch rises in the N. W. part of it and runs a great distance parallel with the Chaudire, but in opposite directions, the Chaudire carrying part of the streams of the highlands north to the St. Lawrence, the Kennebec another part, south to the Atlantic. The boatable waters of the two rivers are only 5 miles apart. The eastern branch is the outlet of the waters of Moose lake, and runs not more than 30 miles before its confluence with the western, at the distance of 100 miles from the source of the latter. The united stream flowing 50 miles, passes the ancient town of Norridgewoc, where it receives Sandy river, and 30 miles below is joined by the Sebastacook from the E. which comes from lakes nearly north from its mouth, and flows 150 miles. Immediately above the Sebastacook are the falls of Karatunk, the largest on the river. Teconic falls are 40 miles farther down. They form numerous mill seats, and a lively village stands upon the shore. The head of the navigation for sea vessels is 18 miles below, and 46 from the sea. Here the river forms a large basen and furnishes very commodious anchoring ground. Twenty miles from the sea, the Kennebec receives the Androscoggin, at Merry Meeting bay, a name derived from the expansion of the two rivers at their confluence. The mouth of the Kennebec is a bay of considerable size.

The Androscoggin is a western branch of the Kennebec. It rises north of lake Umbagog, in New-Hampshire and runs south-

* Sullivan.

wardly till it approaches the White Mountains, from which it receives Moose and Peabody rivers. It then turns E. then S. then S. E. till it passes within two miles of the sea; then turning N. it descends the Pejepscot falls, and unites with the Kennebec, as has been mentioned.

The Saco river rises in the White Mountains, in New-Hampshire, in which its course is S. Turning to the N. E. it enters Maine, and pursues a southeasterly direction to Saco bay. It is navigable for ships 6 miles to Saco falls. Here a number of valuable saw-mills are erected. Vast quantities of timber are floated down this river. The Saco rises within a quarter of a mile of the Lower Ammonoosuc, a branch of the Connecticut. It receives Ossapee river from the W.

Piscataqua river bounds Maine on the west. Its course is principally in New-Hampshire.

Lakes. The Umbagog lies partly in Maine and partly in New-Hampshire.

Moosehead lake lies in the northern part of the district, at no great distance from the highlands. It is 40 miles long, and from 10 to 15 wide, indented by numerous bays, and interspesed with beautiful islands. The borders are varied and handsome. The waters abound with large and excellent trout. The land E. and N. W. is good. S. W. it is, at some distance, rough and mountainous.

Lake Sebacook, 18 miles N. W. of Portland, is a considerable body of water, and is connected on the N. W. with Long pond by Sungo river. The whole extent of these waters are nearly 30 miles.

In Maine there is a profusion of lakes and ponds. The maps of the globe exhibit no other country, of equal dimensions with the *inhabited* part of Maine, possessing a greater number.

Mountains. The Spencer mountains lie east of Moose lake, 8 or 10 miles distant. One of the summits is very high.

Mount Kataardin is an eminence about 80 miles northerly of Bangor, in the crotch of Penobscot river. From its top 72 ponds are said to be visible.

Mount Kinio lies on a peninsula on the east side of Mooshead lake, about midway from N. to S. It is very high, and the east side is nearly perpendicular. Its substance is granitic.

Minerals. Mountain and bog iron ore are found in various places. There is a species of stone in Lebanon, York county, which yields copperas and sulphur.

Animals. Numerous flocks of deer, and some moose of a large size, formerly inhabited Maine; there are few now to be seen, especially in the western parts of it. Some deer are killed in Mount Desert island every winter.

The animals common to northern climates, such as the fox, bear, wolf, beaver, &c. are found here; and an animal, called by the natives, *buccarebou*, of a size between the moose and the deer, was formerly found in this country. Cattle and horses are here easily raised; and the sheep, on the Kennebec river are larger than in Mas-

sachusetts proper, the mutton is of a higher flavor, and the fleeces much heavier.

The rattle-snake is the only poisonous serpent in this district, and is seldom seen. Flies, except for a few weeks in the heat of the summer, are not troublesome.

The sheep on the Kennebec suffer from the heat of the summer; but never from the cold of the winter, except the lambs; which however, in one or two days after their birth, become dry in their coats, and brave the winter like their parents.

Burnt Lands. These are lands extending from near Penobscot river 50 or 60 miles in a westerly direction, and south of those high clusters of mountains which pass under the names of Abema, the Sisters, and Spencer mountains. The breadth of these lands is very irregular; perhaps 10 miles may be considered as the mean breadth. The trees on this extensive tract were first prostrated by some violent tempest, which happened about 16 years ago. The general face of these lands is level, and the tempest must have poured over the mountains, like water over a dam, for the bodies of the trees fell from the north, in which direction the mountains lie. This extensive tract was set on fire (whether by lightning, or by the carelessness of the Indian hunters, or through design, for the convenience of hunting, is uncertain) about 8 years since, at the time the inhabitants first began to settle on those ranges of townships, which lie N. of the Waldo patent, and spread over the whole tract. A fire was again kindled on this tract in the summer of 1811, but being baffled by shifting winds, and finally extinguished by rain, it continued its ravages but a few days, and spread over but few miles of territory. But the trunks of trees, the outsides of which are now reduced to tinder, and the combustibles annually accumulated from the leaves of decayed vegetables, form such a body of tinder, as that a fire, in any dry time and favoring wind, would renew and extend its ravages over this whole tract. The face of nature has been laid bare by conflagrations. The hills, ponds, and streams are no longer embowered, as in the wilderness, but are laid open to the eye of the beholder from chosen eminences. The appearance of the whole country, in the season of vegetation, is not unlike that of a cultivated country, but we can no where behold the dwellings of men or the shelters of animals, nurtured by his care, but are left to to fancy them in rocks, which have the appearance of the abodes of men at a distance. The margins of a few of the rivers, where the land was low and marshy, are lined with its ancient growth, which keeps the eye from tiring with the uniformity of the prospect. Multitudes of animals must have perished, the bones of which have been discovered.*

* Rev. Mr. May.

MASSACHUSETTS PROPER.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. ORIGINAL POPULATION. HISTORICAL EPOCHS. RELIGION. GOVERNMENT. POPULATION. MILITIA. REVENUE. MANNERS. LITERARY, RELIGIOUS, AND HUMANE INSTITUTIONS. LITERATURE. TOWNS. ROADS. BRIDGES. CANALS. MANUFACTURES. BANKS. COMMERCE.

Extent. THIS state lies between lat. 41 23 and 43 52 N. and between lon. 69 50 and 73 ,10 W. Its length, on the northern line, is 130 miles; on the southern, from New-York to cape Cod, 190. Its breadth, in the west, is 50 miles; farther east, it is about 100; and on the cape in some places it does not exceed 15. The number of square miles is 6250.

Boundaries. Massachusetts proper is bounded on the N. by Vermont, New-Hampshire, and Massachusetts bay; on the E. by the same bay and the Atlantic; on the S. by the Atlantic, Rhode Island and Connecticut; on the W. by Rhode Island and New-York.

Divisions. Massachusetts proper is divided into 13 counties and 294 towns.

Counties.	Towns.	Houses.	Population.			Chief towns.
	1810	1800	1790	1800	1810	
Berkshire	32	4764	30,291	33,670	35,907	Stockbridge Lenox
Hampshire & Franklin*	64	9181	59,681	72,432	76,275	Northampton Springfield Greenfield
Worcester	51	9239	56,807	61,192	64,910	Worcester
Middlesex	44	6585	42,737	46,928	52,789	Charlestown Cambridge Concord
Essex	23	7995	57,913	61,196	71,888	Newburyport Ipswich Salem
Suffolk	2	3286	44,875	28,015	34,381	Boston
Norfolk	22	3429		27,216	31,245	Dedham
Plymouth	18	4387	29,535	30,073	35,169	Plymouth
Bristol	16	4695	31,709	33,880	37,168	Taunton
Barnstable	14	2537	17,354	19,293	22,211	Barnstable
Duke's	3	463	3,205	3,118	3,390	Edgarton
Nantucket	1	779	4,620	5,617	6,807	Sherburne
Total 13	294	57,505	378,727	422,630	472,040	

The number of representatives to Congress for the whole state is 20.

* Franklin is a new county, taken from the northern part of Hampshire county.

Names. The name *Massachusetts* was aboriginal, and belonged to a numerous tribe of Indians, that lived in the neighborhood of Boston. The southeastern part of the state, till the year 1692, was called *Plymouth*, or the *Colony of Plymouth.* In a few of the earliest grants, the northeastern part of the state was called *Mariana.* Many of the common people of New-England have always called Massachusetts the *Bay state*, because, before the revolution, its name was the *Colony or Province of Massachusetts Bay.*

Original Population. The Pawkunnawkutts occupied the territory of Plymouth colony. This "great people," together with the Massachusetts, were swept away in great numbers by an epidemical sickness in the years 1612, 1613, 7 or 8 years before the Plymouth colony arrived.* The Massachusetts Indians possessed the principal part of the counties of Suffolk, Norfolk, and Middlesex. The Pawtuckett and their tributaries, the Pennakooks, Agawomes, Naamkeeks, &c. occupied Essex and the northern parts of Middlesex counties and the contiguous parts of New-Hampshire. The Nashaways held the northern parts of the county of Worcester; and the Nipmuks or Nipnets, the southern. On Connecticut river a succession of small tribes inhabited the county of Hampshire and seem to have had no common bond of union. The Mohcakanneews, properly so called, or Stockbridge Indians, occupied the county of Berkshire and the neighbouring parts of the state of New-York.

Historical Epochs. In 1614 the coast of Massachusetts was discovered and minutely explored by Capt. John Smith. Several fishing voyages were made on the coast 3 or 4 years afterwards.

In 1620 Plymouth was settled by a part of Mr. Robinson's congregation, under Carver and Bradford, and in 1621 the charter of Plymouth colony arrived.

In 1628 the foundation of Massachusetts colony was laid, the patent was granted, and Salem and Charlestown settled; and, in the following year the charter was confirmed by the king, and a form of government established for Massachusetts colony in England, and the government transferred from England to the colony. The last charter of Plymouth colony was procured in January, 1630. The first court of assistants was holden for Massachusetts at Charlestown, in August, and the first general court at Boston, in October of the same year.

In 1634 the charter of Plymouth colony was surrendered to the crown. An attempt was made the same year to compel the surrender of the charter of Massachusetts, and again in 1638, but they miscarried. The patent of Plymouth, in 1641, was transferred to the freemen.

In 1643 the four colonies of Massachusetts, Plymouth, Connecticut, and New-Haven, entered into articles of union, styling themselves *The United Colonies of New-England.* Rhode Island, petitioning to be a member of the confederacy, was refused. The same year the state was divided into counties; and the general court the year after into two houses.

* Gookin, Hist. Coll. vol. i. p. 148.

The colony engaged in Philips' war in 1675.

A *quo warranto* issued against the colony in 1683; judgement was given against it in chancery the next year, and its charter was taken away.

James II. in 1685 appointed Joseph Dudley president of Massachusetts, New-Hampshire, Maine, and Rhode Island. His administration continued but a short time.

On the accession of William and Mary, in 1689, a council of safety was appointed by the freemen, and the assembly resumed the charter.

A new charter was granted in 1692 by which Plymouth, Maine, New-Brunswick, and Nova Scotia, were annexed to Massachusetts; but the governor and council were to be appointed by the crown. An explanatory charter was annexed to this in 1726, and accepted by the freemen.

In 1745 the troops of Massachusetts, Connecticut, and New-Hampshire sailed for Cape Breton and took Louisburg from the French.

In 1765 this colony proposed a general congress (which met at New-York) to resist the encroachments of parliament. It sent circular letters in 1768 to all the provinces, to excite them to insist on a redress of grievances. The general court was immediately dissolved by the governor, and a convention soon afterwards met at Boston. The day after it rose, the town was occupied by British troops.

The destruction of the tea in the harbor occurred in 1773, and the shutting up of the port by parliament, the next year. The general court proposed a second congress, and chose delegates. It met at Philadelphia in September. The legislature resolved itself into a provincial assembly, and met at Concord.

The battle of Lexington was fought on the 19th of April, 1775, and an army immediately raised by the province. From actual returns made from all the counties in Massachusetts (except Nantucket and Duke's county) it appears, that on the 14th of April, 1775, (the time when the revolutionary war commenced) the following was the amount of all the warlike stores in the then province, viz.

Fire arms	21,549
Pounds of powder	17,441
Do. of ball	22,191
Number of flints	144,669
Do. bayonets	10,108
Do. pouches	11,979

The amount of the town stocks.

Fire arms	69
Barrels of powder	357¾
Pounds of ball	65,781
Number of flints	100,531

The quantity of powder would furnish little more than half a pound to a man.

The battle of Breed's Hill, so honorable to American valor, was fought June 17th, and the eastern part of the state was the theatre of war till March, 1776.

The state constitution was agreed on in March, 1780.

The complete abolition of slavery was effected in 1783.

A serious insurrection took place in the western counties in 1786, in consequence of the burden of the taxes. The great body of the insurgents were in Hampshire county, and were headed by Daniel Shays. It was quelled early in the following year by Gen. Shepard.

Religion. The constitution of this commonwealth authorises all persons, of whatever religious persuasion or sentiments, to worship God agreeably to the dictates of his own conscience, provided he does not disturb the public peace. The most numerous denomination is that of the Congregationalists, of which there are about 350 churches, which are supplied by nearly an equal number of pastors and candidates. The Baptists are next in number, then the Methodists, Episcopalians, (which have 14 churches and 8 ministers) Universalists, and a few Quakers.

Government. The executive consists of a governor, lieutenant governor, and a council of 9 members. The two first are chosen by the people annually. The council is chosen by the legislature out of the 40 returned as senators; and, if they decline, from the mass of the people. The legislature, called also *The General Court*, consists of a senate and house of representatives, both chosen annually by the people. The senators are chosen by districts. The representatives by the towns. Each town having 150 rateable polls sends one, and another for every additional 225 polls. They assemble annually in May and January. The governor's assent is necessary to the passage of a bill, unless (after he withholds it) two thirds of both houses vote for it. The judiciary is composed of a supreme court, having 5 judges, and sitting twice a year in each county; county courts having 5 judges; a court of probate in each county; and justice's courts. These courts are subject to different modifications by law.

Population. The number of inhabitants in Massachusetts, including Maine, was in the year

1731	about 120,000		1790	373,324 whites 5,463 blacks	378,787
1742	about 164,000				
1749	220,000		1800	416,393 whites 6,452 blacks	422,845
1763	235,810 whites 5,214 blacks	241,024			
1784	353,133 whites 4,377 blacks	357,510	1810	465,303 whites 6,737 blacks	472,040

At the first census, Massachusetts was the second state in point of population, at the second and third, the fourth. Its white population in 1790 was the largest, and is now the third. The annual emigration from this state is larger than from any other, though not so large in proportion as from Connecticut.

Militia. The militia of Massachusetts is composed of all the able-bodied white male citizens from 18 to 45 years of age, excepting from the enrolment, within those ages, all who hold any civil office of importance, either under the state or federal government; mariners, and also those who have formerly held any military com-

mission whatever. The militia, thus embracing the greatest part of the active citizens, is completely armed and organized, and in as good a state of discipline as any real militia in the world, it being assembled by companies three times a year, for discipline, and once for revising the rolls and making returns, and also once by regiments or battalions for review and inspection. In Jan. 1805, from returns then made to the governor, there were in this whole commonwealth 10 divisions, in which were 58,879 infantry, 2,679 cavalry, and 2,531 artillery, making a total of 64,039. In 1811, there were 13 divisions, which formed 28 brigades, in which were

103 regiments of infantry
71 companies of cavalry
70 companies of artillery

Whole number of infantry (including officers)		64,930
Do.	cavalry	2,730
Do.	artillery	3,050
	Total	70,710

The whole number of persons in the commonwealth, between 16 and 45 years of age, is 133,354; so that the militia rolls contain a little more than half the number between these ages.

Revenue. The taxes of the year 1810 amounted to $166,723·20*. On the first of Jan. 1811, the state owed $809,884·64, and there was then due to the state $1,055,958·94, leaving a balance in its favor of $250,074·30.

Banks. There are at present 17 banks in Massachusetts proper. The charters of several of them will expire shortly, and may not be renewed.

Names.	Places.	Capitals.
Branch of the U. S. Bank†	Boston	$ 700,000
Massachusetts Bank	Boston	1,600,000
Union Bank	Boston	1,200,000
Boston Bank	Boston	1,800,000
State Bank	Boston	3,000,000
Nantucket Bank	Nantucket	100,000
Nantucket Pacific Bank	Nantucket	100,000
Newburyport Bank	Newburyport	550,000
Essex Bank	Salem	300,000
Salem Bank	Salem	200,000
Merchants' Bank	Salem	200,000
Gloucester Bank	Gloucester	100,000
Beverly Bank	Beverly	160,000
Bedford Bank	New-Bedford	150,000
Plymouth Bank	Plymouth	100,000
Worcester Bank	Worcester	150,000
Marblehead Bank	Marblehead	100,000

Manners. The state of society in Massachusetts generally is desirable. Every town is provided with schools, and with one or

* The province tax in 1774, amounted to 10,312*l.* 10*s.* 34,561 dolls. 66 cts.
† The charter of this bank has expired.

more churches. Children of both sexes acquire the rudiments of learning, and great numbers of the inhabitants are liberally educated. Most of them attend public worship on the sabbath, and good order and sobriety prevail during the week. The public execution of a native citizen is a very rare occurrence, and the number of petty offences is small, compared with that in most other countries. The state's prison, or penitentiary, contains short of 200 prisoners. The great body of the people are agriculturists. They live in towns, and are the proprietors of the soil; there are few poor in the European sense of the word; but many individuals who are opulent. Respectability and a competence are open to all, and are possessed by the mass of the inhabitants.

Literature. There are two public seminaries in Massachusetts proper, viz. The university of Cambridge, and Williams College.

HARVARD COLLEGE, now the UNIVERSITY IN CAMBRIDGE, takes its date from the year 1638. Two years before, the General Court voted, for the erecting a public school, or college, in Newton, (since called Cambridge) 400l. This was but about six years after Massachusetts began to be settled; Plymouth at that time being a distinct colony.

In the year 1638, the Rev. John Harvard, of Charlestown, died, and left a legacy of 779*l.* 17*s.* 2*d.* sterling, being one half of his estate, to the fore-mentioned public school. In honor to the memory of so liberal a benefactor, the court ordered that the school should take the name of Harvard College. In 1640 the court granted the income of Charlestown ferry, as a perpetual revenue to the college; and this year the Rev. Henry Dunster was appointed president, there having been before that time only a preceptor or professor, and an assistant.

In the year 1642, (when the first class finished their literary course, and the degree of Bachelor of Arts was conferred on them) the General Court passed an act constituting a board of overseers, "for the well ordering and managing of the said college," consisting of the governor and deputy-governor for the time being, and all the magistrates of the jurisdiction, together with the teaching elders of Cambridge, Watertown, Charlestown, Boston, Roxbury, and Dorchester, and the president of the college for the time being.

In 1650, the college received its first charter from the court, appointing a corporation consisting of seven persons, viz. a president, five fellows, and a treasurer, to have perpetual succession by election to their offices: Their style is, "The President and Fellows of Harvard College." To this body was committed all the estate of the college; and they have the care of all donations and bequests to the institution. After this charter was granted, the board of overseers continued a distinct branch of the government; and these two bodies form the legislature of the college.

After the declaration of the independence of the United States, the foregoing charter was established by the constitution of Massachusetts, and the governor and lieutenant-governor for the time being, together with the council and senate of the commonwealth, the president for the time being, and the congregational ministers of the

aforesaid six towns, were declared successors of the old board of overseers.*

All elections to fill up vacancies in their own body are made by the corporation; they also choose all the executive officers; but all these elections are laid before the board of overseers for their concurrence, as also all their votes for the enaction of standing laws, granting of salaries to the officers of the university, and conferring of academical degrees. Other affairs respecting the university, the corporation manage according to their own discretion.

The executive government consists of the president, professors, tutors, a regent, the librarian, and two proctors. They watch over the morals of the students, see that the standing laws are obeyed, and make discretionary regulations in cases not provided for by the laws.

The professors and tutors give instruction in the university. There is a professor of divinity, of mathematics and natural philosophy, of Hebrew and other oriental languages, of rhetoric and oratory, of logic, metaphysics, and ethics, of natural history, of the Latin, and of the Greek languages. Of the four tutors, one teaches the Latin language; another the Greek; another geography and the elements of geometry, natural philosophy, and astronomy. The instructions of the tutors are given privately to the classes separately, those of the professors in lectures, and to the two upper classes only.

There is a foundation laid for a professorship of natural religion, moral philosophy and civil polity, by a bequest of the Hon. John Alford, esq. of Charlestown. This bequest being subject to the disposal of Mr. Alford's executors, viz. the Hon. Edmund Trowbridge, of Cambridge, and Richard Cary, of Charlestown, esqrs. they appropriated it to this purpose.

Among the presidents† and professors of this university, have

* In the winter of 1810, the legislature altered the charter respecting the board of overseers, making that body elective in future, excepting the governor and council, the president of the senate and speaker of the house, for the time being. By the new act, the board of overseers is to consist of the governor and his council, the president of the senate and speaker of the house, with 15 clergymen and 15 laymen; the latter 30 to be a permanent body with power to fill their own vacancies. The senators of the commonwealth, and the Congregational ministers of the towns mentioned, after the decease, or removal of the latter now in office, cease, by this act, to be, *ex officio*, members of the board of overseers.

† *Presidents of the University of Cambridge, from* 1640 *to* 1810.

1640.	Rev. Henry Dunster,	resigned	1654.
1654.	Rev. Charles Chauncy,	died	1671.
1672.	Leonard Hoar, M. D.	resigned	1674.
1675.	Rev. Urian Oaks,	died	1681.
1682.	John Rogers,	died	1684.
1684.	Rev. Increase Mather, S. T. D.	resigned	1701.
1701.	Rev. Samuel Willard, Vice-President,	died	1707.
1708.	Hon. John Leverett, S. R. S.	died	1724.
1725.	Rev. Benjamin Wadsworth.	died	1737.
1737.	Rev. Edward Holyoke,	died	1769.
1770.	Rev. Samuel Locke, S. T. D.	resigned	1773.
1774.	Rev. Samuel Langdon, S. T. D.	resigned	1780.
1781.	Rev. Joseph Willard, S. T. D. L. L. D.	died	1804.
1804.	Rev. Samuel Webber, D. D.	died	1810.

been men highly distinguished both for their natural abilities and acquired accomplishments.

The branches of literature and science in which the students are instructed are those commonly taught in European and American institutions of this kind.

The students are annually examined in the several branches to which they have attended in the course of their education, before a committee of the corporation and overseers.

A course of education is completed in the university in four years.

All academical degrees are publicly conferred by the president on the commencement day, which is the last Wednesday in August, annually. This is one of the most splendid anniversaries in the United States.

For a number of years before the revolution, there were from 180 to 190 undergraduates at the university. During the war they very much decreased. Since the conclusion of the war they have been gradually increasing, and there were in 1802, 220 undergraduates; in 1811, 255. Indigent students are much assisted in their education, by charitable funds belonging to the university.

From the establishment of this college, to the year 1800, 1674 young gentlemen had received its honors, of whom 1158 had been, or were then, ministers of the gospel. This *most ancient* of all the American colleges, has furnished both for the church and state its full proportion of eminently learned and useful men.

There is a fund from the estate of Edward Hopkins, Esq. of Great-Britain, which yields a considerable sum annually, towards the support of six resident bachelors of arts, appointed by the corporation, which they receive after a certain term of residence and publicly delivering in the chapel four theological dissertations, two in the Latin, and two in the English language.

The late governor Bowdoin left the sum of 400*l*. "the interest to be annually applied by the president and fellows, in the way of premiums for the advancement of useful and polite literature among the residents, as well graduates as undergraduates of the university.

The list of liberal benefactors to this institution is long and respectable; and contains the names of some of the most eminent characters in Great-Britain and America. Its funds are much larger than those of any of the other American colleges.

In the year 1782, a medical institution was formed in the university. It consists of a professorship of anatomy and surgery, of the theory and practice of medicine, of chymistry and materia medica, and of clinical medicine. Each of the professors is established upon a foundation.

The funds not affording a sufficient compensation to these professors, they take moderate fees from their pupils.

These professors give a complete course of lectures in their several branches, commencing on the first Wednesday in October, annually, at Boston; and are pursued till each professor has

finished his course. The senior class, and medical students attend these lectures.

There are four handsome public buildings occupied by the students; also a chapel, and a large hall containing public rooms. The library contains 17,000 volumes, and is annually increasing. Exclusive of the Boylston medical library, which is large and valuable, this is the largest collegiate library in America. The philosophical apparatus is also complete and excellent. The latitude of Harvard Hall is 42° 28′ 28″ N. the longitude 71° 7′ 30″ W.

WILLIAMS COLLEGE, in Williamstown, in the northwest corner of the state, was founded in 1793, and named after Col. Ephraim Williams, its principal benefactor. The legislature of the college is composed of a corporation of 15 members, of which the president is one. A president, a professor of law and civil polity, a professor of mathematics and natural philosophy, and three tutors. There are two collegiate buildings for the reception of students. The commencement is on the first Wednesday in September.

PHILLIPS ACADEMY, in Andover, 20 miles N. of Boston, was founded and handsomely endowed in 1778, by the Hon. Samuel Phillips, esq. of Andover, and his brother the Hon. John Phillips, LL. D. of Exeter, and incorporated 1780. It is under the direction of a board of 13 trustees, and the immediate care of a principal, who is a trustee, *ex officio*, an assistant and a writing master. The institution is accommodated with a large and commodious building erected by the founders and their brother, the Hon. William Phillips, esq. of Boston. It is situated on a delightful and healthful eminence, commanding an extensive prospect.

The design of this foundation, according to its constitution, is, "The promotion of true piety and virtue, the instruction of youth in the English, Latin, and Greek languages; together with writing, arithmetic, practical geometry, music and oratory, logic and geography; and such other of the liberal arts and sciences, or languages, as opportunity and ability may hereafter admit, and the trustees shall direct." Its funds amount to between $50,000 and $60,000.

Liberal provision was made in the funds of this academy, by the late Dr. John Phillips, for the assistance of indigent young men of genius and piety, and of students in divinity.

Provision having been made for the purpose, in the original constitution of this respectable academy, a THEOLOGICAL INSTITUTION was established, and annexed to it, which was opened for the instruction of students in divinity, in the autumn of 1808. This new and distinct branch of Phillips Academy was founded by Samuel Abbot, esq. who gave $20,000 to support a professor of Christian theology, and madam Phœbe Phillips, relict of the late lieut. gov. Samuel Phillips, and her son the Hon. John Phillips, esq. of Andover, who gave the buildings. To this theological institution is annexed an *Associate Foundation*, made by Moses Brown, and William Bartlett, esqrs. merchants of Newburyport and the Hon. John Norris, of Salem, who gave each $10,000, for the support of an as-

sociate professor, and of theological students. William Bartlett, esq. has also given $20,000, as a fund for the support of a professor of pulpit eloquence, and has erected two houses for the accommodation of the professors. In addition to these liberal donations, the late Mrs. Norris, relict of the Hon. John Norris, above named, has bequeathed $30,000 to this institution. The trustees of Phillips academy have the immediate care and direction of the theological, as well as of the academical institution. The theological institution is also under the inspection of a board of visitors, consisting of two clergymen and one layman* (together with the founders during life) who have a voice in the election and removal of the professors, and other usual visitatorial powers.

The immediate instruction and government of the students is committed to three professors, viz. a professor of Christian theology, a professor of sacred literature, and a professor of pulpit eloquence. The present number of students, consisting of graduates from the colleges, is between 50 and 60, the greater part of whom are supported, either wholly or in part by the funds of the institution and by private bounty. The whole scheme of divine truth, as revealed in the holy scriptures, is here professedly taught, and a fair view of all the controverted doctrines of Christianity and forms of ecclesiastical government and discipline exhibited, from the ablest writers on all sides, and the pupils left free to form each his own opinions. The professors are always to be men, who, having examined for themselves, shall have embraced, as the genuine doctrines of the gospel, the great doctrines of the reformation, summarily expressed in the assembly's shorter catechism.

The library, at present, consists of 2500 volumes of the most appropriate and excellent authors.

This institution promises to be a fruitful and salutary nursery to the church, and an important mean of elevating the standard of theological learning, and of correcting and harmonizing religious opinions among the clergy of New-England.

Dummer Academy, in Newbury, was founded in 1756, is under fifteen trustees, has funds yielding $1000 a year, a commodious building, and a handsome library.

Leicester academy, in the town of Leicester, was incorporated in 1784; Bristol academy at Taunton, in 1792; and Derby academy at Hingham, in 1797.

There are academies also at Plymouth, Sandwich, Dedham, Lynn, Westford, Groton, and Deerfield.

By a law of the state, every town containing 50 families must maintain a common English school; and every town having 200 families, a grammar school, for instructing in Latin and Greek. Penalties are inflicted on those who disobey this law.

* The present board of visitors are

Permanent Board:
- Rev. Timothy Dwight, D. D. LL. D. president of Yale college
- Rev. Samuel Spring, D. D.
- Hon. George Bliss, esq.

Founders:
- Samuel Abbot, esq.
- Moses Brown, esq.
- William Bartlett, esq.

Literary, Religious, and Benevolent Societies. These institutions are numerous and respectable, and exhibit a fair trait in the character of the inhabitants. Their good influence is felt to a great extent throughout the commonwealth.

Towns. Boston is the largest town in New-England. It was settled in November, 1630, from Charlestown, and called *Shaumut* by the Indians, and *Trimountain* by the first settlers. It was afterwards named *Boston*, out of respect to the Rev. Mr. Cotton, formerly minister of Boston. It stands on an irregular peninsula, 2 miles long, and in the broadest place 1 mile and 139 yards wide, at the head of Massachusetts bay. The buildings cover upwards of 1000 acres. The peninsula is joined to the main land at the south end, by a narrow isthmus, called Roxbury neck. The harbor, east of the town, is large enough to receive 500 ships in a good depth of water; while the entrance will scarcely admit 2 ships abreast. It is diversified by 40 islands. On one of these stands Fort Independence, 3 miles from the town, which commands the entrance: The works are new and strong. The wharves and quays are about 80 in number. Long wharf is 1743 feet long, and 104 broad. On the north and west of the town is the estuary of Charles river. Charlestown bridge was thrown over it at the N. end of the town, at an expense of $50,000. On the west side of the town, is the West-Boston bridge, leading to Cambridge, which is 3846 feet long and 40 wide, with a causeway of 3344 feet. The expense was $76,700. Between the above, is Craigie's bridge, a handsome structure, which connects Boston with Lechmore's point; and is the shortest, and least expensive of the three bridges. Another bridge at the south end of the town, connects it with a part of Dorchester. The streets of the town are generally narrow and crooked, and laid out without regard to convenience or taste. Those in West-Boston, State and India streets, and a few others, ought to be excepted. There are 97 streets, 36 lanes, 26 alleys, and 18 courts. The number of houses, in 1800, was 2870. Those in the old town are generally plain; but in West-Boston and round the common, there is more magnificence in the buildings, than, in the same compass, in any town in the United States. The population of Boston, in 1790, was 18,038; in 1800, 24,937; and in 1810, 33,250.* The public buildings are an old and new statehouse, Faneuil hall, courthouse, theatre, concert hall, gaol, almshouse, exchange, atheneum, Franklin place which is the depository of the valuable collections of the Historical Society, 23 churches, viz. 10 Congregationalists, 2 Episcopalians, 3 Baptists, 1 Unitarian, 1 Friends meeting house, 2 Methodists, 1 Roman Catholic, 1 African Baptist, and 1 place of worship for travelling preachers. Several of the churches are elegant edifices. The atheneum is the noblest thing of the kind in America. The exchange is an immense pile, 7 stories high, 124 feet long, and

* If the inhabitants of the towns of Charlestown, Cambridge, and Roxbury, which, in point of local situation, may be considered as suburbs of Boston, were added, the number would amount to 44,201, nearly half the number, as in New-York, and Philadelphia.

102 wide, containing 202 rooms. The new state house fronts south-east upon the common, which is a handsome open field, containing 45 acres, and limited on the east by the mall, a fine walk 600 yards long, and adorned by two rows of trees. The building is 173 feet long, 61 deep, and 50 high, besides an attic story in the centre, 60 feet wide and 20 high, and a circular dome above it, 30 feet high and 50 in diameter. On the top of the dome is an elegant circular lanthorn, supporting a gilt white pine cone. The appearance (both of the interior and the exterior) of the edifice, is throughout elegant and noble; and the prospect from the top, of the town of Boston, its shipping, wharves, and buildings, of Charles river, the harbor, Fort Independence, and the numerous islands, of more than 20 flourishing towns, and of the surrounding hills, forming a vast amphitheatre, and every where beset with hamlets and villas, or adorned with fields and groves, is said not to be surpassed by the view from the Castle Hill of Edinburgh, or by that of the bay of Naples, from the castle of St. Elmo. The inhabitants of this town are celebrated for their hospitality and munificence. Boston has 4 banks, the capital of which amounts to $7,600,000. By the aqueduct corporation, the town is supplied with water from a fine pond of pure water, in Roxbury. It contains 30 distilleries, 2 breweries, 8 sugar houses, 11 rope walks, a casting furnace, a large glass house, and extensive manufactures of paper hangings, cards, candles, and stone ware. In commerce it is surpassed only by New-York and Philadelphia. For the six months immediately preceding the first of Feb. 1811, there arrived, in the foreign trade, 452 vessels, and cleared 331; and in the coasting trade, arrived 738, and cleared 1094. The country market is excellent, and is the fish market, except as to shell-fish. Boston is not a city, but a town, governed by 9 selectmen, chosen annually by the people. Lat. 42 23 N. lon. 71 5 W.

Salem was settled in 1628. The Indian name was *Naumkeag*. It is the second town, both in age and size, in New-England, and is 13 miles N. E. of Boston. It is built on a peninsula, formed by two small inlets of the sea. The northern is Beverly harbor, a drawbridge passes over it 1500 feet long, and is a station for a small part of the vessels of Salem. But the south inlet is the proper harbor of the town. It is so shallow, that vessels drawing 10 feet of water, must load in the channel at a distance from the wharves. The streets and houses are generally neat, but plain. The town contains 6 Congregational churches, 1 Episcopalian, 2 Baptist, 1 Friends, and 1 Universalist. The number of houses, in 1800, was 980. The population, in 1790, was 7,921; in 1800, 9,457; and in 1810, 12,613. The inhabitants are celebrated for their industry, and true republican economy. It is the wealthiest town, for its size, in the United States, and has more capital employed in trade, and more shipping, in proportion to its population, than any other. Its merchants have been very successful in the India and China trade. Here are three banks, having together a capital of $700,000.

Beverly lies north of Salem, from which it is separated by a

handsome toll bridge. It is a commercial town, is largely concerned in the fisheries, has 3 Congregational churches and 1 Baptist, a bank with a capital of $160,000, and 4,608 inhabitants.

MARBLEHEAD is built on a peninsula, 4 miles southeast from Salem; and has 2 Congregational churches, 1 Episcopalian, and 1 Baptist, and a few Methodists. The harbor, on the southeast side of the town, is a mile and a half long, and half a mile broad. The inhabitants are occupied almost wholly in the bank fishery; and every autumn, in the fields south of the town, millions of codfish are spread to dry, on frames covered with brushes, which are called *fish-flakes*. The country, indeed, for a great distance, is whitened with them; and those on land, if not those "off at sea," are saluted with a very different fragrance from that which they breathe "who now are passed Mozambique." The streets are narrow and crooked. The business of this town has declined; the embargo, peculiarly affected this, and other fishing towns. It has a bank with a capital of $100,000. Population, in 1800, 5,211; in 1810, 5,900.

NEWBURYPORT is 33 miles N. E. of Boston, and 2½ from the mouth of the Merrimac, and is the third commercial town in the state. The harbor is safe, large, and deep, but difficult to enter. It contains 7 churches; 3 Congregational, 2 Presbyterian, 1 Episcopalian, and 1 Baptist; a court house, gaol, bank, and 10 public schools. The population, in 1800, was 5,948; and in 1810, 7,634. The town contains but one square mile. The site is a beautiful declivity. Most of the streets are wide and handsome, and cross each other, nearly, at right angles. The houses are very handsomely built; and the town has, perhaps, no rival in point of beauty, in the United States. The inhabitants are characterized by their hospitality, and amiable manners. A fire, in 1811, destroyed more than 100 dwelling houses, and many shops and stores of goods, to the amount of more than half a million of dollars; but the loss was partly made up to the sufferers by the cheerful liberality of their countrymen. In this town, and in the neighboring towns on the Merrimac, there were built in 1811, 21 ships, 13 brigs, and 1 schooner, measuring upwards of 12,000 tons.

NEW-BEDFORD, in the county of Bristol, is a thriving commercial town, 58 miles southward of Boston; and on the first of January, 1811, its citizens owned 44 ships, 6 brigs, 6 schooners, and 16 sloops, the tonnage of all which amounted to 14,888. It has 5,651 inhabitants.

PLYMOUTH, 42 miles S. E. of Boston, is the oldest town in New-England, and was settled in 1620. It has a large, but shallow harbor; and contains 3 Congregational churches, and 4,228 inhabitants. The rock on which the pilgrims landed is still recognized here, and the anniversary of their landing is celebrated.

IPSWICH, the *Agawam* of the Indians, 35 miles N. N. E. from Boston, contains 5 parishes, and 3,569 inhabitants. Its natural situation is pleasant, but it has many appearances of decline.

CHARLESTOWN, the Indian *Mishawum*, is N. of Boston, and connected with it by Charles river bridge. It stands on a pleasant

peninsula, formed by Mystic river on the east, and a bay setting up from Charles river on the west. Two bridges connect it with Malden and Chelsea, on the east. It contains 700 houses, and 4,959 inhabitants, a Congregational and a Baptist church, and one for Universalists, an alms house, and on the Mystic a marine hospital and a navy yard belonging to the United States. The state prison is at the west extremity of the town. It is 200 feet by 44, and has 5 stories. The foundation is of rocks of 2 tons weight each. On this is laid a tier of hewn stone, 9 feet long and 20 inches thick, forming the first floor. The outer walls are 4, and the partition walls 2 feet thick, of hard granite, from 6 to 14 feet long. The prison yard is 400 feet by 300; and has a wall 15 feet high, and 5 feet thick. The number of prisoners, at the close of 1811, was about 200. The officers of this benevolent and useful institution, are three directors, a warden, chaplain, physician, keeper, and assistants. The celebrated battle, commonly, but incorrectly, denominated, "Bunker Hill battle," was fought in this town, on Breed's Hill, which commands a fine view of Boston, its harbor, and the surrounding country.

WORCESTER is 40 miles W. from Boston, pleasantly situated in a valley, and contains 2 Congregational churches, a beautiful court house, and a strong stone gaol. The population is 2,577. Printing has heretofore been carried on here very extensively; likewise, manufactures of pot and pearl ash, cottons and linens.

NORTHAMPTON, on Connecticut river, is a flourishing, pretty town, 100 miles W. N. W. from Boston, containing 2,631 inhabitants. An extensive tannery has been established here.

SPRINGFIELD, farther down on the same river, is well built, and contains a national armory. Population 2,767.

Roads. The roads in Massachusetts are, generally, well made. The country, in all directions, is intersected by turnpikes, which centre in the capital. That from Boston to Newburyport, 33 miles, cost $400,000; and that from Boston to Salem, 13 miles, cost more than $200,000. The road from Providence to Boston, 42 miles, is of the same expensive kind. The western turnpike, from Boston through Rutland, Northampton, to Pittsfield, runs the whole length of the state. Another passes from Boston through Worcester; and another through Dedham and Mendon, to Hartford. Another through Andover, Londonderry, and Concord, to Dartmouth college; and another through Concord, Groton, &c. to Keene, and to Middlebury, in Vermont.

Bridges. The bridges in Boston and Salem have been described. Malden bridge, erected in 1787, across Mystic river, connecting Charlestown and Malden, is 2,420 feet long, and 32 wide. Chelsea bridge, over the mouth of the same river, connects Charlestown and Chelsea. The bridge over Parker's river, in Rowley, is 870 feet long, and 26 wide, and is built with 8 arches. A bridge is thrown over the Merrimac at Newbury. Another over the same river, between Haverhill and Bradford, is 650 feet long, and 34 wide. It has three arches of 180 feet each. Another crosses the same river at Dracut, near Patucket falls. Merrimac

bridge, also over the same river, is between the Haverhill and Newbury bridges, and is the longest of all. There is another bridge across this river at Andover. A noble bridge crosses the Connecticut, between Montague and Greenfield, having four arches. Three others are erected between Hatfield and Hadley, between Hadley and Northampton, and between Springfield and West-Springfield.

Canals. At Miller's falls, in Montague, the Connecticut descends in a short course 66 feet. The principal fall is at the head of the canal. Here a dam has been built, 1000 feet long, and 28 feet high, from the top to the surface of the water below. This raises the surface of the river above, so high as to direct a part of it into the canal, which is on the east side. The canal is cut across a level piece of land, and is almost three miles long, 20 feet wide, and 2½ deep. There are 14 locks, each 75 feet long, 120 wide, and drawing three feet water. They are formed by stone walls, 8 feet thick, lined with plank. The guard lock, at the head of the canal, and close to this dam, is supported on the river side, by a stupendous wall of stone, 40 feet high, and 28 feet thick; and, on the land side, by a rocky shore. The canal enters the river again a few rods below the mouth of Deerfield river. Four miles above this dam, and 250 rods below the mouth of Miller's river, is the upper dam. It reaches also across the Connecticut, is 330 feet long and 8 feet high; and is built like the other, of solid timber. This raises the water in the river sufficiently to overcome the rapids at the mouth of Miller's river. Boats avoid this dam by a short canal on the east side, consisting of a single lock, 100 feet long and 20 wide.

There are two canals at South-Hadley. The descent at the upper falls is 55 feet. At the head of the falls, a dam of solid timber is built obliquely up the river, for 100 rods, whence it strikes across the river, 60 rods. The oblique dam is 14 feet high, but the height of the direct dam is less. At the bottom of the dam is the guard lock, for half that distance. The canal is 2 miles long, and has a narrow strip of pasture between it and the river's bank. The first mile is dug through low land; the remainder through solid rocks, to the depth of 20 and 25 feet. The width of the canal, in the narrowest place, is 25 feet, and generally much wider; its depth is 2½ feet.* A mile below the mouth of this canal are the Willimanset falls, the whole descent of which is 16 feet. A canal of one mile in length, leads round them, which has two locks. By these various canals,† an immensely important inland navigation is opened the whole breadth of the state, through the rich and productive county of Hampshire.

Middlesex canal connects the Merrimac with Boston harbor. The whole distance is 30 miles; viz. 6 miles from the Merrimac

* This canal has undergone some changes, with the particulars of which, the author has not been made acquainted.

† The stock of the two companies concerned in these canals, is divided into 1008 shares, one half of which belongs to gentlemen in Holland. The amount expended, about 200,000 dollars.

to Concord river, and 25 thence to Boston harbor. Concord river is a sluggish stream, and has a fall in it, in the town of Billerica, 4 miles from its mouth. The canal commences in the Merrimac, a little above Patucket falls; and, in a southeast course of $3\frac{3}{4}$ miles, ascends, by 3 locks, 21 feet, to the level of Concord river above its fall. It crosses Concord river on its surface; and, in a southeast course of 25 miles, descends 107 feet, by 13 locks, to the tide water of Boston harbor. The locks are all 90 feet by 12, of solid masonry, and excellent workmanship. The width of the canal is 24 feet, and draws 4 feet water. Both parts of the canal are fed by Concord river. From that river, southward, it preserves the same level for the first 11 miles. In this distance, it was necessary to dig, in some places, to the depth of 20 feet; to cut through two difficult ledges of rocks; and to throw several aqueducts across the intervening rivers. One of these, across the Shawshine, is 280 feet long, and 22 feet above the river. There is another across Mystic river, at Medford. At the end of the 11 miles from Concord river, is a lock with 7 feet descent, and a mile and a half farther another of the same height. Thence to Woburn the canal is level. Boats of 24 tons, 75 feet long and 11 wide, can navigate it. They are generally, however, smaller, and are drawn by two horses, at the rate of 3 miles an hour. Common boats pass from one end to the other in 12 hours. A raft, one mile long, and containing 800 tons of timber, has been drawn by two oxen, part of the way, at the rate of one mile an hour. The whole expense of the work was above $550,000. The tolls have not exceeded $17,000 per annum. The vast quantities of timber around Winnipiseogee lake, on Merrimac river and its branches, and Massabesic pond, and the produce of a great extent of very fertile country, will, in the end, be transported on this canal to Boston. It need not be added, that this is the greatest work of the kind yet completed in the United States.

The Essex canal goes round Patucket falls in the Merrimac. These, as the river runs, are 40 miles from the sea. The whole descent is 34 feet. The canal has 3 locks, and is 4 miles long. It receives boats drawing $3\frac{1}{2}$ feet water. From the mouth of the canal to the head of the tide at Haverhill, the whole descent in the river is 45 feet, yet it is navigable the whole distance.

Manufactures. The following table will give a concise view both of the kinds and of the amount of the manufactures in this state in the year 1810.

General recapitulation of the manufactures of Massachusetts Proper.

	Estimated value.
Ashes, 123 tons	$20,619
Breweries, 716,800 gallons	86,450
Buttons	20,000
Bricks, 25,295,000	139,067
Straw bonnets	551,988
Brushes, 1666 dozen	5,000
Corn brooms, 70,000	4,000

Cloth and clothier's works.

54 Cotton factories, 19,448 spindles, 838,348 pounds	931,906
22,564 Looms, 4,048,209 yards	2,060,576
1 Factory woollen cloth, 6860 yards	10,290
80 Carding machines, 797,236 pounds	236,193
221 Fulling mills, 730,948 yards	442,401
9 Spinning Jennies, 56 looms, 36,000 yards	28,600
Playing cards, yearly amount	97,500
4 Wool card factories, 9953 dozen	78,998
Do. 14,400 feet	33,000
Cabinet work, yearly amount	318,622
Chairs, 1694 dozen	96,060
Combs, 49,905 dozen	80,624
Candles, tallow, 1,436,550 pounds	217,060
spermaceti, 465,000 pounds	178,300
Cooperage, 37,995	69,318
Clocks and watches, amount	46,185
Catgut	2,000
Chocolate, 255,500	73,100
Coaches and chaises, 667	122,674
Distilleries, Molasses, 2,472,000 gallons	1,404,350
Grain, 63,730 gallons	42,590
Cider, 316,480 gallons	181,386
Duck, Hemp, 3025 pieces	80,813
Cotton, 200 pieces	6,000
Bagging and tow cloth, 6000 yards	33,000
Fishery, Mackerel, 5400 barrels	44,550
Glass	36,000
Gloves, 4875 dozen	14,625
Fire engines, 1 factory	4,000

Founderies of brass and copper.

Brass guns, 12,976 pounds	7,136
Copper, 32,159 pounds	22,828
Bells, 21,410 pounds	8,555
Brass and pewter, 99,288 pounds	41,700
Composition, 251,503 pounds	109,781
Hats, 142,645	415,167
Jewelry and silver work	161,625
Printing ink, 6000 pounds	3,000

Forges, 11 trip hammers.

Bar iron, 978 tons	121,930
Anchors, 440 tons	92,712
Hollow ware, 2340½ tons	132,200
Edge tools }	44,000
Wrought iron }	521,718
Lace for coaches, yearly amount	10,000
Leather, Boots, 63,307 pair	412,509
Men's shoes, 844,864 pair	973,033
Women's shoes, 1,310,500 pair	816,250
Saddlery, harness, jockey caps, &c.	788,726
Lead mines	200

Muskets, 19,095	229,085
Musical instruments	17,880
16 Marble works, 894,000 feet	38,000
Nails, Wrought	69,235
Cut, 2925¼ tons	644,990
Small	1,360
Oil, Spermaceti, 77,696	68,832
Whale, 249,728 gallons	171,688
Oil mills, 44,460 gallons	46,982
Paper mills, 95,129 reams writing	257,451
63,000 rolls hangings	33,500
Ores, ochre and nitrous beds	1,350
6 Powder mills, 120,000 pounds	72,000
84 Grist mills.	
Wheat and rye, 460,476 bushels	350,896
Corn and oats, 49,054 bushels	35,273
150 Saw mills.	
Pine, 10,725,000 feet	80,480
Oak, 490,000 feet	6,855
1 Rake factory, 11,000 rakes	1,870
Rope walks, Cordage, 2808⅓ tons	1,030,661
Twine, 85,200 pounds	37,383
Ship building, 23,410 tons	656,095
Soap stone manufactory	13,000
Spectacles, yearly amount	10,000
1 Steel factory, 20 tons	4,000
Spinning wheels, 6393	17,982
Spruce, essence, 1250 pounds	2,500
Snuff, 118,400 pounds	37,281
Soap, Hard, 2,043,720 pounds	239,697
Soft 4190 barrels	18,400
Sewing silk, 103 pounds	618
Loaf sugar, 422,000 pounds	82,400
Slitting mills, 1700 tons	318,600
Salt petre, 23,600	9,308
Salt works, 468,198 feet.	
Salt, 118,757 bushels	79,526
Glauber salts, 534,238 pounds	13,369
Sheep, Merino, 73	18,250
Mixed blooded, 2062	154,650
Common, 103,141	226,282
Woollen stockings, 37,951 pair	28,458
Essence of turpentine, 6000 gallons	18,000
Steel thimbles	10,000
Tanneries, Morocco skins, 261,800	130,160
Hides, 174,596	1,022,661
Calves skins, 65,888	129,078
Sheep skins, 62,536	52,140
Hogs skins, 2800	9,100
Tacks, 11,000,000	2,000
Tin plate works, amount	73,715

Whips, 7050 dozen	7,990
Waggons, 2260	43,600
Earthen ware	18,700
Wire factories, amount	24,912
Wooden ware	31,000
Sheeps wool 35,000 pounds	14,175
Total	$18,595,328

By an inspection of the table it will be seen that the chief articles are thus arranged: cottons, articles of leather, ardent spirits, tanned leather, cordage, wrought and cast iron, nails, woollens, ships, straw bonnets, hats, cabinet work, flour, slit iron, paper, oil, soap, muskets, brass and copper, jewelry, bricks, carriages, and duck.

Lynn is the principal seat of the shoe manufacture. The tannery at Northampton is probably the largest in the United States. There are 6 paper mills on Neponset river, and 6 on Charles river, beside many others. West-Cambridge and Boston are the chief seats of the card manufactories. There is one of wire at Dedham; a very large one of cut nails at Malden, and others at Taunton, Bridgewater, Plymouth, Amesbury, Middleborough, and Walpole; and slitting mills at Dover, Plymouth, Danvers, Beverly, Amesbury, Newton, Norton, Taunton, and Bridgewater. Earthen ware is manufactured at Danvers and Lynn, and stone ware at Charlestown. Straw bonnets are made, in immense numbers, in Wrentham and the neighboring towns. Duck is manufactured at Boston, Salem, Haverhill, Northampton, and Springfield. Woollens at Pittsfield; and silk and thread lace at Ipswich. The window glass made at Boston is superior to any that is imported.

Commerce. The exports from Massachusetts in 1804, amounted to $16,894,379, and in 1810, according to the secretary's report, to $13,013,048 of which $7,251,277 were foreign produce and $5,761,771 domestic. It appears by that document, to be the first state in the amount of its foreign exports, and the second, in the amount of its domestic; but it is really the first in this also; for a very large proportion of the domestic exports of New-York are really the produce of Vermont, Massachusetts, Connecticut, and New-Jersey; and the chief part of the exports of Rhode Island is the produce of Massachusetts. This state owns also more than 3 times as many tons of shipping as any of the other states, and more than a third part of the whole that belongs to the United States. Her ships visit every part of the world. The chief exports are fish, beef, lumber, pork, ardent spirits, furniture, flaxseed, beeswax, whale oil, spermaceti, whalebone, and the more important manufactures above enumerated. The three first are the staples of the state.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. BAYS. CAPES. PONDS. MOUNTAINS. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITIES. PENINSULA. ISLANDS. LIGHT HOUSES.

Climate. SEE New-England.

Face of the Country. The western part of the county of Hampshire and most of the county of Berkshire are mountainous. In this latter county, however, the valley of the Housatonnuc, comprises the flourishing and pleasant towns of Lanesborough, Lenox, Pittsfield, Stockbridge, and Sheffield. It is generally narrow, but every where fertile, and sometimes spreads to a considerable width. The valley of the Connecticut in this state is from 2 to 20 miles wide, and embraces a most rich and delightful country. In the three towns of Hadley, Northampton, and Hatfield, alone, the quantity of interval land exceeds 10,000 acres, all visible from a single spot. East of the river a range of mountains crosses the state from N. to S. on the eastern border of Hampshire and the western of Worcester. Beyond this the country is for some distance hilly, then uneven, and near the shore level. The southeastern part of the state, including Plymouth, Bristol, and Barnstable counties, is chiefly a plain.

Soil and Agriculture. The three last mentioned counties have principally a light sandy soil, with some excellent tracts interspersed in the two first. Barnstable is only a heap of sand. The rest of the state has generally a strong good soil, well adapted to grazing and grain. The average produce of the good lands is estimated as follows: 30 bushels of maize or corn to the acre, 30 of barley, 20 of wheat, 15 of rye and 200 of potatoes.

The agriculture of Massachusetts surpasses that of any of the states, except Connecticut and Pennsylvania. The towns around Boston are literally gardens, from which the capital is supplied with the finest fruits, roots, and vegetables. The crops on the intervals of the Connecticut are the largest in the state. They yield, when well cultivated, from 60 to 80 bushels of maize, from 25 to 35 of wheat, the same quantity of rye, and from 2 to 4 tons of hay to the acre. Similar lands on the Housatonnuc are also equally productive. Apples are the abundant fruit in Massachusetts. They are of many kinds, and the quantity of cider annually made very great. Excellent pears abound, and peaches to a limited extent, in the neighborhood of Boston.

The ox is the animal most used in agriculture, and next to that the horse. The ass and mule are not common.

Rivers. The Connecticut divides the county of Hampshire. The Housatonnuc runs through most of Berkshire, but is really a river of Connecticut. The sources of the Quinabog, a branch of

the Thames are also in this state. The Merrimac has been described. The Pautucket also runs a considerable distance here.

Taunton river rises in the N. E. part of the county of Plymouth, and pursues a S. W. course of 50 miles to Mount Haup bay, the N. E. corner of Narragansett bay. It is navigable, for small vessels, nearly half that distance to Taunton; where it receives, from the N. N. W. Wading River, its chief tributary.

Charles river, the Indian *Quinobequin*, heads in a pond in Hopkinton, and pursues a very circuitous rout, but on the whole in a N. E. direction, to Boston harbor, which it enters, after passing Charlestown. Its length is about 40 miles, and it is navigable to Watertown, 7 miles. In Dedham a stream, called Motherbrook, runs out of the Charles S. E. into the Neponset, forming a natural canal, and affording several excellent mill seats.

Neponset river issues from Mashapog pond in Sharon; and, after passing in a N. E. but winding course over numerous mill seats, meets the tide in Milton, whence it is navigable 4 miles to Boston bay. Its length is about 20 miles.

Ipswich or *Agawam* river rises in Wilmington, and runs about 15 miles, into Ipswich bay.

The Nashua, a branch of the Merrimac, rises in Mason, runs S. E. and N. E about the same distance, and empties at Dunstable after a course of about 45 miles. Its source and mouth are in New-Hampshire, but its chief course is in Massachusetts.

Concord river rises in Framingham, and pursues a course E. of N. to the Merrimac, emptying at Tewksbury. It is about 30 miles long.

Miller's or *Payquage* river, heads in a pond in Rindge, New-Hampshire, and falls into the Connecticut between Northfield and Montague. It runs about 30 miles

Chicapee river rises in Gerry, in the N. part of Worcester county, and runs S. S. W. emptying at Springfield. It is about 50 miles in length.

Westfield river rises in Lanesborough in Berkshire, and proceeds in a S. and S. E. direction, emptying at West-Springfield, after a course of 50 miles.

Deerfield, or *Pocomtic* river heads in Stratton, in Bennington county; and, running S. and E. falls into the west side of the Connecticut, between Greenfield and Deerfield. It runs about 40 miles.

Bays. Massachusetts bay has already been described.

Barnstable bay is the S. E. extremity of Massachusetts bay, setting up between Monumet point and Race point, where it is 18 miles wide. It is 25 miles deep and its greatest width is about 32 miles.

Buzzard's bay, on the other side of cape Cod, sets up between Seaconnet point, in Rhode-Island on the W. and the Sow and Pigs (a collection of rocks off the S. W. end of Cuttahunk, one of the Elizabeth islands) on the E. From the head of the bay to Seaconnet point, is about 40 miles. Its width will average about 7.

Boston bay sets up between point Alderton and Nahant point,

about 8 miles. Its greatest length, from Charlestown to Hull, is 15 miles. Boston and Charlestown harbors are the western part of Boston bay.

Plymouth bay opens between Monumet point and Gurnet point; and is about 9 miles long, and 6 deep.

Capes. The most noted capes are cape Cod, cape Ann, cape Malabar, cape Poge, Gayhead, and Sandy point.

Ponds. Quinsigamond pond, between Shrewsbury and Worcester, is 7 miles long, and in some places nearly a mile wide. It is in the shape of a crescent, and its shores are uncommonly beautiful. A floating bridge is thrown across a narrow spot in the middle. It is interspersed with a number of islands, one of which contains upwards of 200 acres. Quabog pond, lies in Sturbridge. Ponds of various sizes, generally containing fishes of different kinds, are scattered in very many towns in the state.

Mountains. The Taghconnuc range traverses the western tier of towns in the county of Berkshire, dividing the waters of the Hudson and those of the Housatonnuc. The loftiest summit, Taghconnuc, is in Sheffield, and is about 3000 feet high. The division lines between Massachusetts, New-York, and Connecticut are on this mountain, so that it lies partly in each of these three states.

The Green Mountain range runs east of the Housatonnuc, and pursues a course generally W. of N. Saddle mountain in Williamstown, unites the two ranges, is the highest land in the state, and is about 4500 feet in height. East of the principal chain are several inferior ranges.

The Mount Tom range runs N. N. E. to the southern line of Northampton, where Connecticut river passes between Mount Tom and Mount Holyoke. The chain there takes an easterly direction for ten miles, and unites with the White Mountain range. Mount Tom, the highest summit in this range, is 1320 feet above the river, at its base, and about 1500 above the sea. The prospect from this mountain embraces eminences 160 miles apart, and is uncommonly extensive and commanding. Mount Holyoke, on the other side of the river, is about 250 feet lower than Mount Tom. The view from its top is probably unrivalled in beauty.

The White Mountain range runs up through the county of Hampshire traversing the middle tier of towns east of the river. It has no considerable eminences. Farther east, in the middle of Worcester county, is a range of hills of no great elevation, apparently a subordinate chain of the White Mountain range. Wachusett, an eastern spur from this range, in Princeton, is 1657 feet above the level of that town, and 2989 feet above the level of the sea.

Mineralogy. Iron ore is abundant, particularly in the 3 southeastern counties, and at Leyden, in Franklin county. Copper ore is found at Leverett, in the county of Hampshire, and at Attleborough, in Bristol. Several mines of black lead have been discovered at Brimfield, in Hampshire; and white pipe clay, and yellow and red ochre, in Martha's Vineyard. Quarries of marble have

been opened at Stockbridge, Sheffield, Lanesborough, and several other places in Berkshire, and a vast extent of country is supplied by them. Rich pyrites is abundant at Brookfield in the county of Worcester.

Mineral Waters. There are no mineral waters of much celebrity in this state. In Boston, West-Cambridge, Wrentham, Brighton, and Lynn, are springs, which at times have been visited by invalids, with some good effects. At the latter, commodious buildings have been recently erected, and they have become a place of considerable resort in the summer season. The waters of these springs have not been analysed.

Natural Curiosities. In the north part of the township of Adams, in Berkshire county, not half a mile from Stamford in Vermont, is a natural curiosity, which merits a description. A pretty mill stream, called Hudson's brook, which rises in Vermont, and falls into the north branch of Hoosuc river, has for 30 or 40 rods formed a very deep channel through a quarry of white marble. The hill, gradually descending towards the south, terminates in a steep precipice, down which, probably, the water once tumbled. But finding in some places natural chasms in the rocks, and in others wearing them away, as is evident from their appearance, it has formed a channel, which, in some places, is more than 60 feet deep. Over this channel, where deepest, some of the rocks remain, and form a natural bridge. From the top of this bridge to the water, is 62 feet; its length is about 12 or 15, and its breadth about 10. Partly under this bridge, and about 10 or 12 feet below it, is another, which is wider, but not so long; for at the east end they form one body of rock, 12 or 14 feet thick, and under this the water flows. It is evident, from the appearance of the rocks, that the water, in some places, formerly flowed 40 or 50 feet above its present bed. Many cavities, of different figures and dimensions, but generally circular, are worn out in the rocks. One of these in the solid rock, is about four feet in diameter, and four or five feet deep; the rock is on one side worn through at the bottom. A little above the bridge, on the west side of the chasm, is a cave or little room, which has a convenient entrance at the north, and a passage out at the east. From the west side of this cave, a chasm extends into the hill; but soon becomes too narrow to pass. The rocks here, which are mostly white, though in some places clouded or streaked with other colors, appear to be of that species of coarse white marble which is common at Lanesborough, and in other towns in Berkshire county.

In the town of Wrentham, about two miles south-east of the meeting-house, is a curious cavern, called *Wampom's Rock*, from an Indian family of that name, who resided in it for a number of years. It is situated on the south side of a hill, and is surrounded by a number of broken rocks. It is nearly square, each side measuring about 9 feet. The height is about 8 feet in front, but from the centre it lessens to about 4 feet. At present it serves only as a shelter for cattle and sheep, as do one or two other rocks or caves in the town, formerly inhabited by Indians.

Under this article we mention the falls of Powow river, which rises in New-Hampshire, and falls into the Merrimac between Salisbury and Amesbury, in the county of Essex. At these falls, the descent of the water, in the distance of 50 rods, is 100 feet, and in its passage carries one bloomery, five saw mills, seven grist mills, two linseed oil mills, one fulling mill, and one snuff mill, besides several wheels, auxiliary to different labors. The rapid fall of the water—the dams at very short distances crossing the river—the various wheels and mills arising almost immediately one over another—and the very irregular and grotesque situation of the houses and other buildings on the adjoining grounds, give this place a romantic appearance, and afford, in the whole, one of the most singular views to be found in this country.

Lynn Beach may be reckoned a curiosity. It is one mile in length, and connects the peninsula called Nahant with the main land. This is a place of resort for parties of pleasure from Boston, Charlestown, Salem, and Marblehead, in the summer season. The beach is used as a race ground, for which it is well calculated, being level, smooth, and hard.

From the road passing from Newbury to Ipswich, the ocean is generally in sight. The barrier against it, this distance, is a beach of sand thrown up in a thousand little hills and vallies, of every fantastical and romantic figure, affording a prospect superior in its kind to any perhaps in America. On these little hills, in many places, are beautiful tufts of bushes, which form fine verdant crowns, happily contrasted with their pale colored bases. They bear a striking resemblance to snow drifts, formed by a violent wind. Between this beach and the main land is a remarkable marsh, a mile in breadth, extending nearly the whole distance from Newbury to Ipswich, which is 12 miles.

In Rutland, on the farm of Mr. W. White, has lately been found a large stone, on which is a line of considerable length, in characters, which our correspondent supposes to be Ethiopian. They are regularly placed, and the strokes are filled with a black composition nearly as hard as the stone.

Peninsula. The county of Barnstable is a peninsula, commonly called the *peninsula of cape Cod.* The isthmus between Buzzard's and Barnstable bays in the narrowest part is 3½ miles across. The shape of the peninsula is that of a man's arm bent inwards, both at the elbow and wrist. Its length is about 76 miles; its breadth varies from 1 to 20; and its area is about 400 square miles. It comprises the county of Barnstable, a part of which contains some good lands, but a great part is sandy and barren. The whole population of the cape is 22,211. A great part of the men and boys are constantly employed at sea. In this business they support themselves and their families. In the western towns however many of the inhabitants are engaged in merchandize and agriculture. The young people marry here at an earlier age than in any other part of the country; a proof that the means of subsistence are easily attainable. The cape is literally a nursery for seamen. Barnstable, the chief town, has 3,646 inhabitants. Its harbor, at the bottom of

the bay, is a mile wide, 4 miles long; and is formed by Sandy Neck, a long sandbar, running out eastward, and embosoming a large body of salt marsh. Chatham, at the elbow on the out side, has a harbor with 20 feet depth, at low water. Provincetown is the hook of the cape, and generally narrow; the widest place not being more than 3 miles. The harbor is very deep and capacious, and opens to the S. It is safe except in a strong S. E. wind, when vessels sometimes drag their anchors. It was the first port entered by our Fathers, in 1620, when they came to settle this country. The town has about 30 sail employed in the cod fishery. Ten of their vessels, in 1790 took 11,000 quintals. The houses in the town are small and one story high, and stand on the inner side of the hook of the cape, in two ranges on the beach fronting S. E. and looking into the harbor. The flakes, on which they dry their fish, are around them. The fishing vessels run in upon the sandy shore, and throw their fish over. Here they are washed and carried to the flakes. Nothing is raised here; but every kind of vegetable production is brought from abroad. In 1791, there were but two horses, two yoke of oxen, and about fifty cows, in the town. In the spring, the cows feed on the beach grass, growing in spots, on the shore; in the summer, on the roots and herbs, in the ponds and marshes between the sand hills; and in winter, on sedge cut upon the flats. The harbor of Provincetown is often a shelter from storms, to vessels both inward and outward bound.

From Chatham, northward, the country is broken and hilly, except a border of sand on both shores. These hills are white sand, blown by the wind into a thousand fantastic shapes, and either wholly destitute of vegetation, or covered with whortleberry bushes, low pitch-pine shrubs, or the grass of the cape. This singular plant, when it has once taken root on a hill, soon spreads itself over its surface, and seems designed by Providence to still the tumultuous waves of sand, which are tossed by every wind, like the waves of the ocean.

The cape abounds with clear, fresh ponds, generally stocked with fish. The wood is chiefly pitch-pine. Below Harwich there are no stones. The cellars are built of brick, in a circular form, to prevent the loose sand from caving in. The wells are secured in the same manner, and are kept covered, to prevent the sand from blowing in and filling them up.

In the western towns, maize, wheat, rye, barley, and flax are cultivated. Maize, in the best lands of Barnstable, yields from 15 to 25 bushels; and flax grows very well. There are few orchards below that town, and there is not a cider mill in the county. Most of the forest trees, farther east, have more the appearance of a prim hedge, than of timber. The high winds are particularly destructive to fruit. The winds are all from the sea. The cape, however, is healthy for all, except consumptive people; and many instances of longevity are on record. In consequence of the violent east winds, it is supposed, that the cape is gradually wearing away. The incursions of the sea are often very violent; and the

effects of its ravages are every where apparent. In Provincetown harbor, stumps of trees are seen, which the sea now covers in common tides. In 1620, *Webb's Island* lay off 9 miles east of Chatham, containing about 20 acres, covered with red cedar and savin, which the people of Nantucket formerly used to cut for fire wood: For a century it has been entirely worn away. The water is now 6 fathom deep; and a large rock, that once stood upon the island, now rises as much above the bottom of the sea, as formerly above the surface of the island. The rock marks the place where the island stood.

Whales were formerly caught in great numbers within the bay: now they are rare. A species of fish, called *black-fish*, is very abundant. They are of the whale kind, weigh about 5 tons, and produce oil like whale-oil. They come in shoals of several hundreds, and the inhabitants put off in their boats, and drive them ashore like so many cattle, on the flats; where they are left by the tide, and fall an easy prey. The shore is frequently covered with the huge bones of whales and black-fish. Hundreds of sharks, are often seen at once, lying on the shore at Race point, caught by the boats when fishing for cod. Cod and haddoc are taken in abundance with the hook; and polloc, mackerel, and herring with the seine, all along the inner coast of the bay.

Islands. Many islands are scattered along the coast. Plum island is about nine miles in length, extending from Merrimac river on the north, to the entrance of Ipswich river on the south, and is separated from the main land by a narrow sound, called Plum island river, fordable in several places at low water. It consists principally of sand, blown into curious heaps, 10, 15 and 25 feet high, and crowned with bushes bearing the beach plum. There is however a valuable property of salt marsh, and at the south end of the island, are two or three good farms. On the north end are the light-houses before mentioned. On the sea shore of this island, and on Salisbury beach, the Humane Society of Newburyport have erected several small houses, furnished with fuel and other conveniences for the relief of mariners, who may be shipwrecked on this coast. This island, in the season when the plums are ripe, is the resort of the neighboring inhabitants, and a scene of lively amusement.

Nantucket island is 15 miles in length, and 11 in breadth, about 70° W. lon. from London, and 41 20 N. lat. 8 leagues southward of Cape Cod. The climate of this island is mild compared with that of the adjacent continent. The soil is light and sandy, except some part, where the town stands, and some tracts at the east end of the island, which are of a loamy, rich soil. It is well watered with ponds and springs. A long sandy point projects from the east end of the island to the northward and westward, on which stands the light-house, erected in 1734.* Between this point and the northern

* The practicability and expediency of forming an artificial island on *Nantucket Shoals*, on which to erect some landmark for seamen, have been suggested. A note in Massachusetts Register for 1802 p. 180, on this subject is worthy the attention of the wealthy and humane.

shore of the island is a bay which affords a fine road for ships, except with the wind at N. W. when there is a heavy swell. The harbor is a bason within this bay, obstructed by a sand bar, on which are $7\frac{1}{2}$ feet water at low tide; within the bar are 12 or 14 feet water.

The neighboring sea produces cod, hallibut, sturgeon, shad, herring, bass, eels, &c. On the land, are horses, cattle, sheep and hogs.

In 1790 there were 4,619, in 1800, 5,617, and in 1810, 6,807 inhabitants on this island. The men are principally robust, enterprising seamen and mechanics. The seamen are said to be the most expert whalemen in the world. The women are handsome, and make good wives and good mothers. The inhabitants have been remarkable for living together like one great and harmonious family.

"The land is held in common by the inhabitants, i. e. the island is supposed to be divided into 27 shares; (some few private farms excepted) each share is entitled to a certain portion of land, which the owner may take up in any part of the common land, and convert it to what use he thinks proper. Each share is subdivided into lesser shares, called *Cow's Commons*, which give the proprietor a privilege to turn out as many cows or other cattle as he owns of such parts in common or other stock, in the proportion of one horse or 16 sheep to two cows' commons; which stock feeds on any part of the land that is not converted into a field." All the cows, amounting to about 500, feed together in one herd: All the sheep in one pasture. Each proprietor marks his own. On the days of shearing, which are commonly *two*, on or about the 20th of June, and which are high festive days among the inhabitants, all the sheep are driven into an inclosure, and each proprietor selects and shears his own sheep.

The proprietors in common, plant about 675 acres of corn a year, averaging about 12 bushels an acre, making an aggregate of 8100 bushels, besides about 4000 bushels raised on the private farms. Every other year the land is sowed partly with rye, and partly with oats, yielding yearly about 500 bushels of the former, and 8000 of the latter; besides what is raised on the private farms.

The island is continually lessening by the washing of the sea. Shells of the same kind as are now found on the surface, have been dug from wells 40 or 50 feet below the surface, which indicate that at some former period the earth has encroached upon the sea.

This island was granted to Thomas Mayhew in 1641, by the agent of William, Earl of Stirling. In 1659, Mayhew conveyed nine tenths of it to nine proprietors, who the same year began the settlement of the island.*

The island of itself constitutes one county, which bears the name of the island. *Sherburne*, the only town, contains the bulk of the inhabitants.

Here are two banks, each with a capital of $100,000.

The inhabitants formerly carried on the most considerable whale

* Folger and Macy's Account of Nantucket.

fishery on the coast, but the war almost ruined this business. They have since, however, revived it again, and pursue the whales even into the great Pacific ocean. There is not a single tree on the island of natural growth; they have a place called the woods, but it has been destitute of trees for these 60 years past. The island was formerly well wooded. The people, especially the females, are fondly attached to the island, and few wish to migrate to a more desirable situation.

The inhabitants of this island are principally Friends or Quakers; there are two societies of Congregationalists. Fifty years ago there were three congregations of Indians, each of which had a house for public worship, and a teacher. Their last Indian pastor died about the year 1775, and was a worthy, respectable character.

Martha's Vineyard, which lies a little to the westward of Nantucket, lat. 41° 25′, is about 21 miles in length, including Chabaquiddic, and six in breadth. It contains four societies of Congregationalists, at Edgarton, Tisbury, Chilmark, and Gayhead; 2 of Baptists. Martha's Vineyard, Chabaquiddic, Noman's island, and the Elizabeth islands, which contain about 16,500 acres of valuable land, constitute Duke's county, containing 3290 inhabitants, of which, (July 1801) 320 were Indians and mulattoes, subsisting by agriculture and fishing. The Indians have decreased nearly one quarter in 5 or 6 years.

Edgarton, which includes the fertile island of Chabaquiddic, three miles long, and one and a half broad, is the shire town. This little island joins to the harbor and renders it very secure. Gayhead, the westernmost part of the island, containing about 2400 acres, is very good tillage land, and is wholly occupied by Indians, but not well cultivated. One third of this tract is the property of the English society for propagating the gospel in New-England. A shrub oak plain covers about two thirds of the island. The principal productions of the island are corn, rye, and oats. They raise sheep and cattle in considerable numbers. There are four mill streams in Tisbury. The inhabitants of this county send three representatives, and, in conjunction with Nantucket, one senator, to the General Court.

Elizabeth islands lie in a row of about 18 miles in length, on the S. E. side of Buzzard's Bay. They are about 16 in number; the chief of which are Nashawn, Pasqui, Nashawenna, Pinequese and Cattahunk. Nashawn is famous for its excellent wool and cheese, and was the property of the late Hon. James Bowdoin, Esq. They are all in Duke's county.

The other islands of consideration are in that part of Massachusetts bay called the *Harbor*, which is agreably diversified by about 40 of various sizes. Seven of them are within the jurisdiction of the town of Boston and taxed with it. Castle island is about three miles from Boston, and contains about 18 acres of land. This island has been ceded by Massachusetts to the government of the United States, and named FORT INDEPENDENCE. Very strong and expensive fortifications have been erected by direction of the

general government, which are calculated effectually to defend the harbor against maritime enemies.

Light Houses. Within this state are the following light houses; On Plum island, near Newbury, are two which we have already mentioned. On Thacher's island, off Cape Ann, two lights of equal height. Another stands on a rock on the north side of the entrance of Boston harbor, with one single light. On the north point of Plymouth harbor are two lights. On a point at the entrance of the harbor on the island of Nantucket is one with a single light. This light may be seen as far as Nantucket shoals extend. The island being low, the light appears over it. Another is to be erected on Martha's Vineyard.

RHODE ISLAND.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. ORIGINAL POPULATION. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. MANNERS. LITERATURE. CHIEF TOWNS. ROADS. BRIDGES. MANUFACTURES. BANKS. TRADE.

Extent. THIS state is situated between 41 17 and 42° N. lat. and between 71 6 and 71 52 W. lon. Its north line is 29 miles long, and its west, 49. The coast west of the bay measures 22 miles, the mouth of the bay 16, and the coast east of the bay 5: in all 43; while the greatest width measured on a parallel is 37 miles. Rhode Island contains about 1580 square miles; of which about 190 are water, and about 90 are included in the islands.

Boundaries. N. and E. by Massachusetts; S. by the Atlantic; and W. by Connecticut.

Divisions. This state is divided into 5 counties and 31 townships. The following is a list of the counties with their inhabitants in 1810.

Counties.	No. of towns.	Population.			Chief towns.
		1790	1800	1810	
Providence	10	24,391	25,854	30,769	Providence
Newport	7	14,300	14,845	16,294	Newport
Washington	7	18,075	16,135	14,962	S. Kingston
Kent	4	8,848	8,487	9,834	Warwick
Bristol	3	3,211	3,801	5,072	Bristol
Total	31	68,825	69,122	76,931	

This state sends two representatives to Congress.

Original Population. The tribe of Indians, that occupied Rhode Island, when the country was settled, was the Narragansetts. From them the bay was called Narragansett bay; and the country, lying

between it and Connecticut, was called Narragansett, and the Narragansett country. In 1620 the number of their fighting men was estimated at 3000 or 4000; and, in 1670, in the time of Philip, at 2000. Their whole number of souls at the first period was probably from 12,000 to 16,000, and at the second 8000. They were brave and powerful; and the only tribe in the neighborhood of the Pequods, which they had not conquered. In 1670, the Wampanoags had been some time possessed of the country around Bristol; and Mount Haup, in that town, was the royal residence. Philip, their king at that time, was possessed of uncommon powers of mind. He had the address to unite the numerous petty tribes in the design of expelling the English intruders from the country; and, had he lived 20 years earlier, would probably have accomplished it. The Narragansetts united with him. The result of the effort was the destruction of both tribes by a party from Connecticut and Massachusetts in 1675, and the death of Philip the year after.

History. The first settlement in this state was made by Roger Williams, and a party of malecontents, from Massachusetts, in 1635. In 1638, a deed was procured from the Indians of Aquidnic, or Rhode Island, and 18 men there formed themselves into a body politic, and pitched upon Mr. Coddington, their leader, for their chief magistrate. In 1643, a charter was obtained for the whole colony, by Sir Henry Vane. The charter, which is the present constitution, was obtained of Charles II. in 1663. The state had little to do with the early Indian wars; but in 1746 the inhabitants raised 300 soldiers, and equipped a sloop of war, with 100 seamen, towards the intended expedition against Canada. The expedition was unfortunate, and the design soon dropped. In the revolutionary war they were honorably active. In December, 1776, Rhode Island was occupied by British troops. In August, 1778, an unsuccessful attempt was made by Gen. Sullivan to dislodge them. In May, 1789, Rhode Island adopted the federal constitution.

Religion. The Baptists are the most numerous denomination. The tenets of most of them are Calvinistic; some are Arminian, and a few are Seventh-day Baptists. A still smaller number are called Separate Baptists, claiming peculiar sanctity. The other denominations are Congregationalists, who have 8 ministers; Episcopalians, who have 4 ministers, one of whom is the bishop of the eastern diocese;* Moravians, and Jews. In this state religion is not supported by law. The clergy are maintained by the voluntary contributions of their people. To the disgrace of the inhabitants, an agreement on the part of a congregation to give their clergyman a stated salary cannot be enforced, and is not valid, in law. The consequence is, that the number of the clergy in the state is

* The clerical and lay delegates of the Protestant Episcopal church, in Massachusetts, Rhode Island, New-Hampshire, and Vermont, met in convention, at Dedham, in May, 1810, and organized under the name of *The Protestant Episcopal Church in the Eastern Diocese of the United States of America.* The Right Rev. Alexander V. Griswold, D D. is bishop of this diocese.

A large and respectable society, under the name of "The Trustees of Donations to the Protestant Episcopal Church," was incorporated by the legislature of Massachusetts, in March, 1810.

extremely small; and the state of religion and morals, in a great part of the state, is lamentably low. The western half of the state is considered as missionary ground. Days of thanksgiving and of fasting, which are appointed regularly in the other New-England states, were, till lately, entirely omitted here. For the last 4 years however the governor has annually issued his proclamation for a day of thanksgiving; though as yet there are no days of public fasting.

Government. The charter of 1663 is the constitution of the state. The legislature is composed of a council of 12, including the governor and deputy governor, all chosen annually, and a house of representatives, consisting of deputies from the several towns, chosen twice a year. There is one supreme court, which sits twice a year in each county, and an inferior court of common pleas and general sessions of the peace for each county, sitting also twice a year.

Population. The number of inhabitants was in the year

1730	15,352 whites 2,633 blacks	17,985	1790	64,470 whites 948 slaves 3,407 free blacks	68,825
1748	29,755 whites 4,373 blacks	34,128	1800	65,438 whites 380 slaves 3,304 free blacks	69,122
1761	35,939 whites 4,697 blacks	40,636			
1774	54,435 whites 5,243 blacks	59,678	1810	73,214 whites 108 slaves 3,609 free blacks	76,931
1783	48,538 whites 3,361 blacks	51,899			

The inhabitants are chiefly of English descent.

A few years since there were about 500 Indians in the state, the greater part of whom resided at Charlestown. They speak the English language, and are gradually decreasing in numbers.

Militia. The militia of this state amount to between 7 and 8000 men, organized and disciplined in a manner similar to the rest of the New-England militia.

Manners. The settlement of Rhode Island originated in a religious dispute; and most of the early settlers were exiles from Massachusetts, in consequence of their religious tenets. The prejudice and animosity excited in their minds, by this treatment, was never removed; and their descendants long continued to cherish them. Even to this day, there has never been a Congregational minister settled on the west side of the bay, except in Providence. As the country was known from the first to be the resort of the restless and discontented, few persons of a different character were allured thither; and those laws and institutions, by which the habits of the people were to be formed, were framed and established by a set of men, who were impatient of control, and many of whom were fit subjects for the operation of more wholesome laws in the neighbouring states. The consequence has been, that the mass of the people on the west of the bay, has generally been ignorant, irreligious, and loose in their morals. The tone of religious sentiment, and of morals, in Providence, Newport, Bristol, and other towns adjoining these on the east of

the bay, has been greatly raised by the imigrants from Massachusetts and Connecticut, and the estalishment of regular institutions. In the whole region west of the bay, scarcely a meeting house of any denomination, or school house is to be seen; but a small part of the people have the bible in their houses; and a very great proportion of them are unable to write, or even read. The traveller sees few of the improvements in agriculture, roads, manufactures, or mode of living, which he finds in the neighbouring states; and meets with little of that civility, for which the rest of New-England is remarkable. The missionary labors in this region, have not been without their good effects.

Literature. Brown university, at Providence, was founded in 1764, at Warren; and was removed to Providence in 1770. It received its present name in 1804, from Nicholas Brown, Esq. who gave the institution 5,000 dollars. The collegiate legislature is composed of two branches, a board of fellows, 12 in number, including the president, who, with 7 of the others, must be Baptists; and a board of trustees, in number 36, of whom 22 are Baptists, 5 Friends, 5 Episcopalians, and 4 Congregationalists. The fellows alone confer degrees. A majority of both branches must concur, in every other legislative act, to make it valid. This university, as it is denominated, has the following professorships, viz. of law; of metaphysics and moral philosophy; of the oriental languages; of anatomy and surgery; of materia medica and botany; and of chemistry. The president is at present, professor of mathematics and natural philosophy. The professors and tutors may be of any denomination. The library contains about 3,000 volumes. The philosophical apparatus is valuable. The number of students is 132. The college building is 150 feet by 46, and 4 stories high. It contains 48 rooms, and is pleasantly situated on a commanding eminence. Academies are established at Providence, Newport, Bristol, Warren, East-Greenwich, and South-Kingston; the preceptors of which depend mostly on their pupils for support.

A law was passed some years since, establishing town schools through the state, after the manner of their neighbors on each side of them; but it was found unpopular, and repealed! Schools, however, are now kept during the winter months, in most of the towns in the state, though the laws make no provision for them. The teachers, therefore, in the country towns, are but scantily rewarded. The state of society, on the whole, is improving.

Chief Towns. PROVIDENCE is the third town in New-England, in point of population. It was settled, in 1636, by Roger Williams, who removed from Salem to Rehoboth, and thence to this place. It stands in lat. 41 51 N. at the head of Narraganset bay, on both sides of it, and about a mile above the mouth of the Pautucket, which comes in from the northeast. Ships of almost any size sail up and down the channel, which is denoted by stakes set up on both sides. A short bridge, over a narrow part of the bay, connects both sides of the town. The site of the town west of the bay is a plain, with an indifferent soil. The streets here

are level and well paved. On the east side of the bay, there is a single street, nearly on a level with the water, and parallel with it, which is the seat of most of the business. The land back of this street rises instantly at an angle of 12 or 15 degrees, and the other streets have a fine, but incommodious elevation. The houses, west of the bay, are chiefly new, and well built; the most of the elegant and splendid houses are on the other side. There are 4 churches west of the bay; 1 Friends, 2 Congregational, and 1 Baptist; and 3 on the other; 1 Congregational, 1 Baptist, and 1 Episcopalian. These three last are among the handsomest edifices, of the kind in the union; and the citizens of Providence deserve commendation, for the liberality manifested in their public buildings. The town library is deposited in the court house. The population, in 1790, was 6,380; in 1800, 7,614; and in 1810, 10,071. The commerce of the town is extensive; and the inhabitants are industrious and enterprising. There are here two spermaceti works, a number of distilleries and sugar houses, and several large cotton manufactories. The towns in Connecticut and Massachusetts, bordering on the Rhode Island frontier, trade chiefly with Providence. This town is rapidly increasing; the new buildings, however, are erected chiefly on the west side of the bay.

Newport is built on a very fine bay in the southwest part of the island of Rhode Island. It lies in lat. 41 29 N. The entrance into the harbor, which is one of the finest on the coast, is easy and safe, and a large fleet may lie here at anchor in perfect security. Great island in the harbor's mouth has a fort erected upon it. The town lies N. and S. upon a gradual acclivity from the water, furnishing a beautiful view from the harbor and the neighbouring hills on the main. The houses are chiefly of wood, and about 1000 in number. They are not at all distinguished for their elegance. The population, in 1790, was 6,716; in 1800, 6,739; and in 1810, 7,907. Newport was formerly the first town in the state; but it has now fallen behind Providence in its population, and far behind it in its business and enterprize. The public buildings are 4 Baptist churches, 2 Congregationalist, 1 Episcopalian, 1 Friends, 1 Moravian, and 1 Jewish synagogue; a state house, and an edifice for a public library. The packets between Newport and New-York are said to surpass any thing of the kind in Europe.

For the safety and convenience of sailing into the Narragansett bay and harbor, of Newport a light house was erected, in 1794, in Beavertail, at the south end of Canonnicut island. The diameter at the base, is 24 feet, and at the top, 13 feet. The height from the ground to the top of the cornice, is 58 feet; round which is a gallery, and within that stands the lanthorn, which is about 11 feet high, and 8 feet diameter. The ground the light house stands upon is about 12 feet above the surface of the sea at high water.

Bristol is a thriving town, on the east side of the bay, 15 miles N. of Newport. It has a Congregational and an Episcopalian church, and 2693 inhabitants; and carries on a considerable commerce.

WARREN, 4 miles north of Bristol, and 10 southeast of Providence, is a commercial place, and carries on ship building. It has 1775 inhabitants.

Roads. A turnpike passes from Providence, W. S. W. through Scituate and Coventry, meeting a similar road in Lisbon in Connecticut, which leads through Windham to Hartford. Its length in this state is about 25 miles. Another strikes the Connecticut line south of this, and passes through Norwich, New-London, to New-Haven and New-York. This is the great southern road from Boston to New-York. A turnpike leads from Providence, 4 miles north to the river, meeting there the turnpike to Boston. Most of the roads are very much neglected.

Bridges. The bridge across the bay at Providence is 160 feet long, by 22 wide, and is very well built. A bridge is thrown over Pautucket river, at the falls; another called Central bridge, 4 miles below; and another, called India bridge, 2 miles still lower. A draw bridge was erected over Howland's ferry, between Portsmouth and Tiverton, in 1795. It is 900 feet by 36, and has 42 piers. The greatest depth of water, is 51 feet, at low tide. A bridge was completed, in 1809, between Portsmouth and Bristol. It was made by dropping vast quantities of stones of all dimensions into the water, till a bank was raised above the furface of the highest tide. In this way the whole passage was filled, except the channel. On this sure foundation the bridge was erected.

Manufactures. In 1809, 17 cotton mills were in operation within the town of Providence and its vicinity, working 14,296 spindles, and using 640,000 pounds of cotton, which yielded 510,000 pounds of yarn. About 1100 looms were employed in weaving. At that time 7 additional mills were erecting in the vicinity of the town. One was in operation in East Greenwich with 500 spindles. The cloths manufactured were bed-ticking, stripes and checks, ginghams, shirting and counterpanes. They are superior to imported goods of the same kind. There was then a woolen manufactory in Warwick and another at Portsmouth. About 50,000 hats were then made annually worth $5 each, exclusive of felt hats. A number of paper mills are established. Linen and tow-cloth are made extensively, as well as rum, cards, chocolate, and the coarser manufactures of iron. At North Providence, in 1796, there were erected, on the Pautucket, 3 anchor forges, 1 slitting mill, 2 machines for cutting nails, 1 tanning mill, 1 oil mill, 3 snuff mills, 1 grist mill, 1 cotton manufactory, 1 clothiers works, and 3 fulling mills. They all go by water. Their number now is much increased.

Banks. There are no less than thirteen banks in this small state, viz.

Names.	Places.	Capitals.
Providence Bank	Providence	$400,000
Roger Williams Bank	Providence	150,000
Exchange Bank	Providence	400,000
Bank of Rhode Island	Newport	100,000
Rhode Island Union Bank	Newport	200,000
Newport Bank	Newport	120,000
Bank of Bristol	Bristol	120,000

Commercial Bank	Bristol	50,000
Warren Bank	Warren	85,000
Washington Bank	Westerly	50,000
Rhode Island Central Bank	East-Greenwich	60,000
Narragansett Bank	Wickford	50,000
Smithfield Bank	Smithfield	60,000

Trade. The chief exports from Rhode Island are flax seed, lumber, horses, cattle, beef, pork, fish, poultry, onions, butter, cheese, barley, grain, spirits, and cotton and linen goods. Upwards of 600 vessels enter and clear annually at the several ports. In 1804 the amount of exports was $1,735,671, and in 1810 $1,331,576. The inhabitants, particularly those of Newport, and Bristol, were a little while since largely concerned in the slave trade. This was done in defiance of the laws of the state; and there is strong reason to believe that the severe penalties of the national law have not terminated this inhuman traffic.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. BAYS. MOUNTAIN. ANIMALS. MINERALOGY. CURIOSITY. ISLANDS.

Climate. THE climate is probably as healthy as any that is known. It is somewhat more damp than that of Connecticut, as the moist winds of the ocean that visit the latter, lose part of their dampness in passing Long Island. The winters are here a little milder, but the N. E winds are more unpleasant, though less so than on the eastern coast. The summers are delightful.

Face of the Country. The N. W. part of the state is hilly and rocky, and the hills continue, though with a small elevation, through the northern third of the state. The rest of the country is chiefly level.

Soil and Agriculture. A large proportion of the land is lean and barren. It is generally much better fitted for pasture, than for grain. It produces, however, maize, rye, barley, oats, and in some places wheat enough for home consumption. Cider of an excellent quality is made for exportation; chiefly in Cranston, Johnston, and Smithfield. The five western towns in the county of Washington, called the Shannock purchase, are an excellent grazing country, and are inhabited by a number of large and wealthy farmers. They export great quantities of butter and cheese of the very best quality, and their neat cattle weigh from 16 to 18 cwt. The northwest parts of the state are thinly inhabited, and are the most rocky and barren.

Rivers. Pautucket river issues from Quinsigamond pond, in Worcester county, and runs S. E. and for a short distance S. W. about 50 miles, emptying into Providence bay, about a mile below the bridge. The fall in this river at Rehoboth, 6 miles from its

mouth, is in all, upwards of 50 feet. The principal branch is Clear river. Wood river rises in West Greenwich, and in Charleston receives Charles river, from Warden's Pond. The united stream flowing W. beyond the line, receives Shannock river from the N. and then takes the name of the Paucatuc, and for 7 seven miles forms the Connecticut boundary; emptying into Stonington bay, after a course of about 40 miles. Pautuxet river rises in Gloucester, and running S. E. in Warwick, is joined by the S. W. branch. It thence runs N. of E. to Providence bay, emptying 5 miles below the town. Its length is about 30 miles. The Waraspautucket, and the Mashassuc fall into Providence bay above the town. On the former numerous mills are erected.

Bays and Ponds. Narragansett bay has been described. Mount Haup bay is the N. E. extremity of it, and is about 5 miles long and 3 wide. Providence bay sets up 15 miles N. N. W. from Narragansett bay, and is from 1 to 3 miles wide. Greenwich bay is the N. W. end of Narragansett bay.

There are a number of small ponds in Washington, county as well as in other parts of the state.

Mountain. Mount Haup, on the west side of the bay of that name, was once the capital of the Wampanoags, and the residence of Philip. It is an inconsiderable eminence.

Animals. The country S. of Pautuxet river has been famous for a peculiar breed of horses, called the Narragansett breed. They were not handsomely shaped, but were distinguished for their speed, and their capacity of enduring fatigue. They were all natural pacers and had generally also the single-footed trot, and the square trot. No horses can be found so easy under the saddle. The breed is now generally depreciated, and many of the best mares have been purchased by the people from the westward.

Mineralogy. Iron is found in great plenty in several places. There is a mine in a valley near Pautuxet river about 12 miles from Providence. A steam engine is employed to clear it from water. In Cumberland, near Diamond hill, there is a mine of copper mixed with iron ore, that is strongly magnetic. Limestone is found in great abundance in Providence county, of which large quantities of lime are made, and exported to the other states. A valuable coal mine has lately been found on the north end of Rhode Island.

A mineral spring near Providence is much resorted to.

Curiosity. In Middleton, on the shore 2 miles N. E. from Newport, is a place called Purgatory. It is a large cavity in a high bed of rocks, about 12 feet diameter at the top, and 40 feet deep before it reaches the water, which has a great depth.

Islands. Rhode Island, from which the state takes its name, is 15 miles long, and on an average $3\frac{1}{2}$ broad, containing about 52 square miles. It includes 3 townships, Newport, Middleton, and Portsmouth. Its soil, climate, and situation, are delightful. It suffered much during the war. Between 30,000 and 40,000 sheep are fed on the island, besides neat cattle and horses.

Block Island, or *Manesses*, is 7 miles south from Charlestown

and 21 E. by N. for Montauk. It is 7 miles long and 4 broad, containing 20 square miles. It composes the town of New Shoreham has 722 inhabitants, and is famous for its cattle and sheep, butter and cheese. Codfish, in considerable numbers, are caught on its coast.

Canonnicut lies E. from Rhode Island and is about 10 miles long, containing 10 square miles. It forms a township, called Jamestown, with 504 inhabitants. The soil is luxuriant.

Prudence Isle, N. of Canonnicut, comprises about 5 square miles.

CONNECTICUT.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. ORIGINAL POPULATION. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. REVENUE. BANKS. MANNERS AND CUSTOMS. LITERATURE. CHIEF TOWNS. ROADS. BRIDGES. MANUFACTURES. COMMERCE.

Extent. THE divisional line between Connecticut and Massachusetts, as settled in 1713, was found to be about 72 miles in length. The line dividing Connecticut from Rhode-Island, was settled in 1728, and found to be about 45 miles. The sea coast, from the mouth of Paukatuc river, which forms a part of the eastern boundary of Connecticut, in a direct southwesterly line to the mouth of Byram river, is reckoned at about 90 miles. The line between Connecticut and New-York, runs from latitude 41° to latitude 42 2, 72 miles. Connecticut contains about 4674 square miles; equal to 2,991,360 acres.

This state lies between lat. 41° and 42 2 N. and between lon. 71 29 and 73 24 W.

Boundaries. Bounded N. by Massachusetts; E. by Rhode Island; S. by Long Island sound; W. by New-York.

Divisions. This state is divided into 8 counties, 4 bordering on Massachusetts, and 4 on the sound; which are subdivided into 119 townships.

Counties.	No. of towns.	Population.	Chief towns.	No. of inh.
Hartford	18	44,733	Hartford	6,003
New-Haven	17	37,064	New-Haven	6,967
New-London	13	34,707	New-London	3,238
Fairfield	17	40,950	Fairfield	4,125
Windham	15	28,611	Windham	2,416
Litchfield	22	41,375	Litchfield	4,639
Middlesex	7	20,723	Middletown	5,382
Tolland	10	13,779	Tolland	1,619
Total	119	261,942		

Name. The name of the state is derived from Connecticut river, a Moheakanneew word, signifying *long river.* In the earliest records the name is written *Quonehtacut* and *Quonehtiquot.*

Original Population. The most powerful and warlike aborigines of Connecticut, when the state was settled, were the Pequods. They were originally an inland tribe, but fought their way to the seaside, and at that time occupied Waterford, New-London, Groton, and Stonington, and appear to have ruled all that part of the state which is east of the Lyme range of mountains. Sassacus was their sachem. He had 26 sagamores under him. His principal fort was on a commanding and beautiful eminence in Groton, a few miles southeasterly from fort Griswold. The tribe numbered about 700 warriors. The harbor of New-London was called Pequod harbor.

The Mohegans lay north of the Pequods, and had a much greater extent of country. They reached nearly to the north line of the state and bounded west on the Wongungs and Podunks. Uncas, their sachem, was a brave, cunning man, and never quarrelled with the English. At that time they were tributary to the Pequods. The Nehantics occupied Lyme. They bounded north on the Wongungs in East-Haddam and Chatham. The Podunks about East-Hartford had 200 bowmen. The River Indians occupied Windsor, Hartford, Weathersfield, and Middletown. They were very numerous. The number of warriors in Windsor alone in 1670 was estimated at 2000, who belonged to 10 different tribes. Those of Hartford were then numerous. Sowheag, the most powerful of their sachems, lived at Middletown. His sachemdom also included Weathersfield. The Nipmuks were north of the Mohegans, and subject to them. Their chief seat was about the great ponds in Oxford, Massachusetts; but their territory reached south into Connecticut, more than 20 miles. In Simsbury, Farmington, and East-Hartford, the natives were numerous. The tribes in New-Haven, Fairfield, and Litchfield counties, had each the name of their town, and appear not to have been united. The whole number of Indians was probably between 35 and 40,000.

History. A house was erected by the Dutch, at Hartford, in 1633; and another at Windsor, by William Holmes, from the Plymouth colony, in October of the same year.

A settlement was made at Windsor and Hartford by a small colony from Massachusetts; and another, at Saybrook, by a company from England, in 1635.

The first court was held at Weathersfield in 1636. The next year a war began with the Pequods, which terminated in the conquest of their country.

In 1638 New-Haven was settled by a colony from England under Theophilus Eaton.

The next year (1639) the constitution of the Connecticut colony was formed; and, a few months afterwards, that of the New-Haven colony. The charter of Connecticut colony was granted by Charles II. in 1662, into which the substance of the two original constitutions was incorporated; and, in 1665, the two colonies united.

In Dec. 1675, a body of 300 English and 150 Indians, marched from Connecticut into the country of the Narragansetts, destroyed their principal fort, and subdued the tribe.

An attempt was made in 1687, by Sir Edmund Andross, to seize the charter of the colony, but the wisdom and courage of the legislature rendered it abortive.

The assembly, which, till 1698, had sat in one house, was then divided into two.

In 1708, the Saybrook platform was received and adopted as the ecclesiastical constitution of the state.

The most important expedition against the state, in the revolutionary war, was made from New-York, by gov. Tryon, in 1779. He burnt several towns and plundered others. No state in the union was more active in that war than Connecticut, or contributed more to its successful termination.

The assembly, at the close of the war, continued the charter of Charles II. as the constitution of the state.*

Religion. The following table will exhibit the state of the several religious denominations of Christians in Connecticut, in 1811; the first number in each column denoting the number of *churches*, the second of the *clergy* of the several denominations.

Counties.	Congregationalists.		Episcopalians		Baptists.	
Hartford	35	32	8	4	13	5
New-Haven	34	32	14	10	2	0
New-London	21	13	3	2	15	12
Fairfield	29	20	16	5	8	7
Windham	28	20	2	1	14	11
Litchfield	32	31	13	6	9	4
Middlesex	17	17	6	3	5	4
Tolland	15	11	2	1	1	1
Total	211	176	64	32	67	44

There are but 12 churches and 7 ministers of other denominations in this state.

The Episcopal congregations average about 40 families or 250 individuals. The Baptist congregations are about equally large. The number of Congregationalists is at least 220,000; their congregations averaging upwards of 1000 individuals, or 160 families. The first Episcopal church was founded at Stratford, in 1722. Previous to that time there had been no denomination in the state, but the Congregationalists. The Episcopal churches are now formed into a diocese, superintended by a bishop.

As to the mode of exercising church government and discipline in the Congregational churches, it may not improperly be called a republican religion. It is prescribed in their platform of church discipline, formed in 1708, and called the Saybrook Platform. Each church has a separate jurisdiction, and claims authority to choose its own minister, to exercise judgement, and to enjoy gospel ordinances within itself. The churches, however, are not independent

* The history of this state has been written with great fidelity by Rev. Benjamin Trumbull, D. D.

of each other; they are generally consociated for mutual benefit and convenience. The associations have power to license candidates for the ministry, to consult for the general welfare, and to recommend measures to be adopted by the churches, but have no authority to enforce them. When disputes arise in churches, councils are sometimes called by the parties, to settle them, whose power is only advisory; but the consociation is the tribunal to which disputes are commonly referred. There are 12 associations in the state, and they meet twice in a year. These are all combined in one general association, formed in 1709, consisting of delegates from the several associations, who meet annually. Liberty of conscience, in its full extent, is enjoyed in Connecticut.

Government. The charter of Charles II. contains the constitution of the state. The legislature is styled the general assembly, and is composed of a council and house of representatives. The council consists of the governor, lieutenant governor, and 12 assistants. The governor presides, and has a vote, and a casting vote. They are all chosen annually in April: the two first directly from the mass of the people; the assistants from a nomination of 20, which is filled up by the people in the preceding October. Every freeman is eligible to either of those stations. The house of representatives, consisting of 199 members, is chosen twice a year; 80 towns sending two representatives, and 39 sending but one.

The judiciary is composed of a supreme court of errors, consisting of 9 judges, meeting twice a year at Hartford and New-Haven; of 3 superior, or circuit courts, each consisting of three of the nine judges, who ride the three circuits alternately, and hold a court in each county, twice a year; of a county court in each county, consisting of 1 judge and 4 justices of the quorum, and sitting in 4 of the counties three times a year, and in the other four twice; of a city court in the 5 cities, consisting of a mayor, and 2 aldermen, and sitting monthly; of a probate court in each of the 28 probate districts, consisting of one judge, and sitting whenever the judges direct; and of justices courts, consisting of a single justice of the peace.

This government has been in operation more than 170 years, is the most strictly democratical of any in the union, and is probably the firmest on the globe, as it is founded on the habits and affections of the people. Every public officer is appointed every year, or holds his office during pleasure; yet not an instance can be mentioned of turning a man out of office, except for supposed misconduct. The council, also, are equally secure of their places; and vacancies, that happen in it by death or resignation, are filled up out of a nomination, which has been voted for several years by all the freemen. It is a singular fact that but one governor, or lieutenant governor, whom the people had once elected, was ever left out by them, but at his own request.

Population. In 1671 Connecticut contained 2050 men, or about 10,250 inhabitants, and in 1679, 2507 men, or 12,535 inhabitants. The number of inhabitants was in the year

1756	128,218 whites 3,587 blacks	131,805	1790	232,374 whites 2,764 slaves 2,808 free bl.	237,946
1762	141,076 whites 4,590 blacks	145,666			
1774	191,392 whites 6,464 blacks	197,856	1800	244,721 whites 951 slaves 5,330 free bl.	251,002
1782	202,597 whites 6,273 blacks	208,870	1810	255,179 whites 310 slaves 6,453 free bl.	261,942

The items of the census of 1810 were as follows:

	males.	females.	total.
Under 16 years of age	58,310	54,844	112,154
Between 16 and 45	47,579	51,266	98,845
45 and upwards	20,484	22,696	43,180
Total	126,373	128,806	255,179

This is the most populous district in the union, except Massachusetts proper. Were it not for the emigrations into the other states, the population of Connecticut would increase with a rapidity almost unrivalled. The excess of the number of births over that of deaths is probably greater than in any country in the world. One fourth part of the present population of the state of New-York is supposed to consist of emigrants from Connecticut or their immediate descendants; and the whole number of persons annually emigrating into that and the other states from Connecticut, is supposed to amount to from 12,000 to 15,000.

Militia. The militia of this state, amounting to between 25,000 and 30,000, are organized in four grand divisions, each embracing two brigades, 8 in the whole, which are subdivided into upwards of 30 regiments, of which 8 are cavalry. They have the usual proportion of artillery. The militia are well officered and disciplined, and, being composed of freemen and landholders, would be formidable to any assailants of their rights.

Revenue. The revenue of 1811 was as follows:

Tax on rateable estate and on polls	$46,674·70
Interest on stock in U. S. funds	16,437·19
Dividends on bank stock	9,788·20
Duty on writs, &c.	6,291·98
	79,192·07

The funds of the state, exclusive of the school fund, were in October, 1811, as follows:

Six per cent stock (real capital)	127,153·23
Six per cent deferred stock (real capital)	115,480·65
Three per cent stock (real capital)	50,038·06
Bank stock	129,200·00
	$421,871·94

This sum, added to the school fund, makes a sum total of 1,622,937·77.

The state owes no debt of any kind whatsoever.

Banks. There are 9 banks in the state with the following capitals:

Hartford Bank*	$803,600
New-Haven Bank	329,400
Eagle Bank at New-Haven†	500,000
New-London Bank	125,000
Union Bank at New-London	75,000
Norwich Bank	60,000
Middletown Bank	116,600
Bridgeport Bank	200,000
Derby Bank	100,000
	2,309,600

Manners and Customs. The inhabitants are, almost to a man, of English origin. Their ancestors emigrated from England to enjoy the blessings of civil and religious liberty. They were men of enlightened minds, and irreproachable lives. They founded the colony amid many discouragements and dangers, bravely resisted all the attempts of power to wrest from them their charter, and established a series of political, literary, and religious institutions, probably, inferior to none ever devised by man. These institutions have produced a happy state of society. There are few rich men, and very few who are poor. The great body of the inhabitants possess moderate property. Most of the inhabitants are farmers, with farms of from 50 to 500 acres; who hold their lands in fee simple. All the male inhabitants, arrived to manhood, probably, without exception, can read, write, and cast accounts; great numbers of them have had a collegiate, and much greater numbers an academical education. A church is planted within a little distance from every man's door; and a very great majority of the inhabitants attend public worship twice every sabbath. The bible is possessed by every family, and by every individual in many families: it is no where more read, or more regarded. The state has always enjoyed a pious and enlightened clergy; a clergy, whose average attainments have not been inferior to those of the clergy of any other community; and who have uniformly maintained a decided and happy influence over the public sentiment and character. The great doctrines of the reformation have always been held by the clergy and people, and a singular degree of harmony has prevailed both in doctrine and discipline. There is no country on the globe in which such a mass of useful information is so generally diffused among the the great body of the inhabitants. Wealth here confers less distinction than in many places, and is no passport to office or honor. Neither of these is accessible to him who appears to be seeking for them; and the disgraceful practice of a man's offering himself to the freemen as a candidate for office, has never been introduced. The inhabitants are generally liberal, but not profuse; hospitable, but not

*The capital of Hartford Bank will soon be 1,000,000 dollars.

†This bank is just commencing its operations and its capital is not yet all paid in. Its capital will probably soon be 750,000 dollars.

luxurious. Their houses, equipage, food, and dress are good, but plain and simple. Their amusements consist chiefly in reading, visiting, dancing, riding, and various athletic exercises. The theatre has few friends in this state. Horse racing and cock fighting are effectually forbidden; and tavern haunting is little practiced. The good order of the people on public occasions is singular; particularly at city, town, and freemen's meetings, and at military reviews. Most of the inhabitants pass through life without ever seeing two men engaged in fighting. Every parish bell rings at 9 at night to call the inhabitants home, throughout the year; and very few disobey the summons. Disorders in the night season are very uncommon. Capital punishments are not inflicted oftener than once in 8 or 10 years; and mild laws are found sufficient to restrain the commission of smaller offences. Only two duels were ever fought in the state; the first between two West-Indians, the second between two citizens of New-York, who crossed the line. The only disgrace on the character of the state is its law of divorces, which was passed in 1667; and permits them, for 3 years wilful desertion. It was intended merely to take effect in cases of long and entire neglect, and of extreme unkindness; and for about a century, operated only in such cases. But, since that time, it has gradually prompted to the very desertion which it was intended to punish. If a married couple wish to be separated, they can, in three years, accomplish their purpose without difficulty. Divorces are now very common, and are often the result of a mutual understanding. With this exception the public morals are unusually correct. The intercourse between the sexes, though familiar and friendly, is generally free from reproach; and in no part of the world, are the females more strictly chaste and virtuous, or treated with more delicacy and respect.

Literature. YALE COLLEGE was founded by a number of clergymen, in 1701, and had its charter in 1702. It was named after ELIHU YALE, Esq. of London, governor of the East-India company, who was its principal early benefactor. It was originally fixed at Saybrook; but, in 1717, was removed to New-Haven. Its legislature is a corporation, consisting of the president of the college, who is also president of the corporation, the governor of the state, the lieutenant governor, and six senior assistants, *ex officio*, and ten fellows, who are all clergymen; who, with the president fill up their own vacancies. Other powers are possessed by all the members of the board in common. The corporation meet annually. A committee of three or four members, of whom the president ex officio is one, is appointed by them, every year, to superperintend the concerns of the institution. This committee meets four times a year. The immediate government and instruction of the students is committed to the president, to a professor of divinity, of mathematics and natural philosophy, of chemistry and mineralogy, and of languages and ecclesiastical history, and to 6 tutors. The number of students (1812) is 305. They are divided into 4 classes. The senior class recites only to the president, and, with the junior, attends the lectures of the professors.

The three lower classes are all divided into two divisions, each of which is committed to its own tutor, who has the sole instruction of it. The library contains about 6000 volumes, and has a fund yielding about $200. The students have libraries amounting to 2000 more. The philosophical and chemical apparatus are very handsome, and are complete. The chemical laboratory is far the best in the union. The college possesses a very handsome mineralogical cabinet, containing about 2500 specimens; and, during the present year, two cabinets, one consisting of more than 6000 choice specimens, and the other of about 18,000, the two noblest collections ever opened in the United States, have been deposited in this seminary by Col. Gibbs of Boston. This respectable stranger has been invited by the corporation to deliver lectures on his favorite science. The academical buildings consist of three colleges, each 4 stories high, and 104 feet by 40, all standing in the same line, fronting S. E. and containing 96 convenient chambers; a chapel, having in the third story, a philosophical chamber and rooms for the philosophical apparatus; a lyceum, resembling the chapel in form, and containing a chemical laboratory and its appendages, 7 large recitation rooms, two chambers, and a library; and a large dining hall and kitchen in the rear of the other buildings. The chapel and lyceum are between the colleges, and project beyond them. A medical institution is established in the seminary, but has not begun its operations. It is to consist of three professorships beside that of chemistry, one of the materia medica, one of anatomy and surgery, and one of the theory and practice of physic. The funds of the college are small.

Bacon academy, in Colchester, was founded, in 1801, by Mr. Pierpont Bacon of that town, who bequeathed it $30,000. It is a very flourishing institution, and has annually about 90 scholars.

An Episcopal academy was founded at Cheshire, about 1799. The legislature granted it, by lottery, $15,000. It has about 60 students, and is flourishing.

There are seminaries of the same kind at Canterbury and Plainfield, and flourishing academic schools at Fairfield, Danbury, Litchfield, Ellsworth, Windsor, Hartford, Norwich, Plainfield, New-London, Woodstock, and various other places. Great numbers of the students of Yale college are prepared for it in the families, and by the instruction, of clergymen.

The state has a large fund called the school fund, under the direction of a commissioner, amounting, in October, 1811, to $1,201,065·83. It is the avails of lands formerly belonging to the state, and sold by them in 1795 to a company of speculators. The yearly interest, together with $12,000 from the public taxes is annually devoted to the maintenance of common schoolmasters. The share of each town is proportioned to its amount on the grand list. Each town is divided into two or more school districts. A committee in each has the regulation and the superintendency of all the common schools within its limits. This committee is chosen by the inhabitants of the towns. The towns yearly receive in this way considerably more money from the state, than the amount of their taxes.

Cities and Towns. In Connecticut there are 5 incorporated cities, viz. New-Haven, Hartford, New-London, Norwich, and Middletown.

New-Haven, the Indian Quinnipiac, and the largest town in the state, is situated at the head of a harbor, which sets up from Long Island sound about 4 miles, and is 424 rods wide. It is well defended from winds, but is extremely shallow, and gradually filling up by the deposits of the three rivers which flow into it, and the accumulation of harbor mud. Over a bar at the mouth there is 7 feet water, and a depth every where in the channel, except on this bar, of 15 feet. From the head of the harbor a wharf runs out 3943 feet, and is far the longest in the union. The town is built on a plain, which extends E. N. and W. from it about 2 miles, where it is limited by mountains and hills of every variety of form. The soil of this plain is not naturally fertile, but cultivation has rendered it productive. The city covers about a square mile. It consists of two parts, the Old and the New township. New-Haven was originally laid out in 9 squares of 52 rods on a side, separated by streets 4 rods in width, and forming one large square, 172 rods on a side. Several of these have been since subdivided by cross streets into four smaller squares, and the remainder with a single exception into two parallelograms. The streets are of course at right angles, and are kept very neat and clean. Several of them have a handsome row of elm trees on each side. The central square is an open green, and is a very beautiful public walk. The houses are 750 in number, of which 314 are built on the streets forming the squares. They are chiefly of wood: few of them are mean, and few of them are expensive, but they are generally neat. The public edifices are the collegiate buildings of brick, on the N. W. side of the green, extending about 40 rods in length, and built in a simple, but handsome manner; 5 churches; 3 Congregational, 1 Episcopalian, and 1 Methodist; a handsome state house and gaol; 3 neat school houses, and an alms house. There are here 15 public schools and 8 private ones. The population of the township, in 1790, was 4,484; in 1800, 5,157; and in 1810, 6,967. That of the city, in 1787, was 3,530; in 1798, 4,000; in 1800, 4,049; and in 1810, 5,772. The state of society in this town is uncommonly agreeable. Few towns of the size can boast of so large a collection of citizens possessing refined manners and cultivated minds. The commerce of the town is chiefly with New-York and the West-Indies. The capital steadily employed in commerce exceeds $2,500,000. The exports, in 1806, amounted to $466,367, besides half as much more shipped at New-York; and the number of tons of shipping, in 1800, to 11,011. The amount of duties, in 1803, was $137,086. The exports consist principally of flour, cattle, fish, Indian meal, beef, candles, butter, rams, pork, cheese, lard, leather, hoops, staves, and oats. In the north corner of the town a new burying ground has been laid out on a plan entirely new. The field is divided into parallelograms 200 feet by 64; which are subdivided into family burying places, each 32 feet by 18. The parallelograms are separated by alleys

about 20 feet wide. The ground is planted with trees and makes an uncommonly beautiful appearance.

HARTFORD, the second town in size in the state, lies on the west bank of Connecticut river, 50 miles from its mouth, in the midst of a very pleasant and fertile country. The township is divided by a small stream called Little river. Most of the houses lie north of this stream. A bridge over it connects the two parts of the town. The houses stand chiefly on a single street parallel with the river, and about 60 rods from it. Most of the other streets cross this at right angles. The public edifices are a very handsome state house; 2 Congregational churches, one of them of brick, and among the most elegant in New-England; and 1 Episcopalian; and a handsome bank. About half of the houses are of brick, many of them 3 stories, and well built. Their whole number is about 600. The population of the town, in 1800, was 5,347; and in 1810, 6,003; that of the city, in 1810, was 3,995. Hartford is advantageously situated for trade, has an extensive, fertile, and thrifty back country, and is a flourishing, commercial town. There are several large distilleries in this town, and a variety of manufactures.

NEW-LONDON stands on the west side of the Thames, 3 miles from its mouth. The river is here a mile wide; and the town is defended by a little fort, called fort Trumbull, about a half a mile below. The river forms a large, safe, and commodious harbor, and has 5 fathoms water. The city contains one Congregational, and one Episcopalian church, and about 500 houses. Its population, in 1810, was 3,238. The trade of the town is considerable, but not increasing. The fishery in this harbor is excellent.

NORWICH is 14 miles north from New-London, and at the head of navigation on the Thames. The city contains a court house, two Congregational churches, and one Episcopalian; and 3238 inhabitants. There are numerous mill seats in the township, and various manufactures are carried on here to some extent, particularly of paper, flour, stockings, clocks and watches, chaises, buttons, stone and earthen ware, wine, oil, chocolate, bells, and anchors. The city is in three compact divisions, the landing, the town, and Bean hill.

MIDDLETOWN, the Indian *Mattabesic*, is on the west bank of Connecticut river, 15 miles south from Hartford. The city has two Congregational churches, one Episcopalian, one Baptist, and one Methodist; and carries on a considerable trade. In 1810 the city had 2014 inhabitants, and the town 5382. The country around Middletown is uncommonly handsome.

Danbury, Weathersfield, Farmington, and various others are also flourishing and handsome towns.

Roads. In 1808, 50 turnpike companies had been incorporated to lay out as many roads in this state. At that time, 39 of them, extending 770 miles, were completed. The most expensive, that from Hartford to New-Haven, 34 miles, has cost upwards of $80,000. The others of most importance are the road from New-Haven to Litchfield, 36 miles, and in continuation from Litchfield

the north line of the state, 24 miles; that from New-Haven to Derby, 8, and in continuation to New-Milford, 24; that from New-Haven to Farmington, 30; and the roads from Hartford to Litchfield, 28, to Sheffield, 34, to Stafford, 29, to Thompson, 50, to Sterling, 48, and to Norwich, 40 miles. The common roads in the state are generally good.

Bridges. The most considerable bridge in this state is that over the Connecticut at Hartford. It is supported by 3 arches, and is very handsomely built. Good judges pronounce it sufficiently firm to resist the power of the freshets. A bridge has been lately built over the Housatonnuc at Stratford.

Manufactures and Inventions. The farmers in Connecticut, and their families, are mostly clothed in plain, decent, homespun cloth. Their linens and woolens are manufactured in the family way; and although they are generally of a coarser kind, they are of a stronger texture, and much more durable than those imported from Great Britian and France. Many of their cloths are fine and handsome.

A woolen manufactory has been established at Hartford. The legislature of the state has encouraged it, but it is now on the decline. Mr. Chittenden of New-Haven, about the year 1784, invented a useful machine for bending and cutting card-teeth. This machine is put in motion by a manderil twelve inches in length, and one inch in diameter. One revolution of the manderil makes one tooth; 36,000 are made in an hour. With one machine like this, teeth enough might be made to fill cards sufficient for all the card manufactories in New-England.* In New-Haven are linen and cotton manufactories; and a cotton manufactory, lately established on a large scale. In East-Hartford are glass works, a snuff and powder mill, and iron works, and a slitting mill. Iron works are established also at Salisbury, Norwich, and other parts of the state. At Stafford is a furnace at which are made large quantities of hollow ware, and other ironmongery, sufficient to supply the whole state. Paper is manufactured at Norwich, Hartford, New-Haven, and in Litchfield county, and in various other places. Nails, of every size, are made in almost every town and village in Connecticut; so that considerable quantities can be exported to the neighbouring states, and at a better rate than they can be had from Europe. Ironmongery, hats, candles, leather, shoes and boots, are manufactured in this state. Oil mills, of a new and very ingenious construction, have been erected in several parts of the state. The manufacture of tin plates into culinary vessels, is one of the most useful in this state. It is estimated that plates and iron wire, to the amount of $250,000, are used in this manufacture annually, and the tin ware thus made is sold in all parts of the United Staes, in Florida, Louisiana, and Canada. Metal buttons to the amount of more than $100,000, have been manufactured at Waterbury and other places; and wooden clocks to an equal amount, in different parts of the state.

In Humphreysville a woolen manufactory has been established

* This machine has since been much improved.

on a large scale. The cloth which is made here we understand is of a superior quality. Much credit is due to Colonel Humphreys for the introduction of the Merino breed of sheep, and for his other exertions in promoting the manufactures of his country.

Mr. Whitney has established in New-Haven a manufactory of fire arms. It stands upon Mill river near the northern boundary of the town. The machinery connected with this establishment is ingenious and peculiar. Many parts of it, we understand were invented by Mr. Whitney. It is to the ingenuity of this gentleman, that the world are indebted for the invention of a machine for cleansing upland cotton, from its seeds. They were formerly picked out with the hand, and to cleanse a pound was esteemed a day's work. With the aid of this machine one person will cleanse a thousand pounds in a day with great ease. Before the invention of this machine this species of cotton was not brought to market. In the year ending Sept. 30th, 1807, more than 55 millions of pounds of this cotton were exported to foreign markets, and 5 millions more were employed in domestic manufactures.

Mr. David Bushnel of Saybrook distinguished himself during the revolutionary war, by the invention of various machines designed to annoy the British shipping. The ingenuity of his contrivances have excited the admiration of those, who are skilled in works of a mechanical nature. But from accidents, not militating against the philosophical principles upon which their success depended, they but partially succeeded. Mr. Culver of Norwich is the inventor of an ingenious machine for the clearing of docks and removing bars in rivers. Its good effects have already been experienced in deepening the channel of the Thames, and promises to be useful to navigation throughout the United States.

Commerce. There are five ports of entry in Connecticut; Fairfield, New-Haven, Middletown, New-London, and Stonington. The amount of exports in 1804 was $1,516,110; and, in 1810, $768,643. This last was a *non-intercourse* year. Almost all the produce of the western part of the state is entered at the New-York custom house; and the exports in the coasting trade are greater than those in the foreign trade. The commerce of the state is chiefly with the West-Indies, and with the other states. The exports consist of horses, mules, oxen, oak staves, hoops, pine boards, oak plank, and timber, butter and cheese, Indian corn, beef, fish, cider, pork, flax seed, leather, candles, pot and pearl ash. In 1800 this state owned 32,867 tons of shipping.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. MOUNTAINS. BOTANY. ANIMALS. MINERALOGY.

Climate. NO climate is probably more healthy than that of Connecticut, and few more favorable to longevity. The winters are generally severe; on the shore the weather is variable, in the interior it is cold but serene. The greatest cold ever known was 10° below 0 of Fahrenheit. The summers are generally mild. Usually there is about a fortnight or 3 weeks of very hot weather, but the mercury has rarely risen above 91° of Fahrenheit; and in ordinary summers, it does not exceed 84°. The snow, except on the shore, commonly remains on the ground about 3 months, and the rivers are frozen during the same period. The S. W. wind is the most prevalent, and the warmest. After blowing 3 or 4 days it usually brings rain. The N. W. wind is cool, dry, and in a high degree refreshing. It communicates elasticity to the air, and activity to the animal spirits. The N. E. wind is damp, raw, and tempestuous. Most of the violent storms come with this wind. On the coast, 40 years ago, a land and sea breeze was a regular occurrence in summer; now it is only occasional.

Face of the Country. The shore of this state is every where indented with small bays and harbors. The whole country is remarkably well watered both with large rivers and with brooks. But a small part of the state is mountainous; and but little of it is level. The great body of it is hilly. The hills are generally of moderate size, and occur in quick succession, furnishing the traveller with an ever-varying prospect. These hills are productive; and, unless forested, are devoted to tillage, or to mowing and pasturage. The natural green of the Connecticut landscape presents a fine contrast to the unwilling verdure here and there forced from the southern soil. All the mountains are covered with forest trees. The three most extensive level tracts are that along the shore, and the valleys of the Connecticut and the Quinebog.

Soil and Agriculture. The township of Waterford, west of New-London, is the poorest tract in the state. The next to this is the township of New-Haven, and a part of some of the adjoining towns; yet, in this last, with good husbandry, wheat has yielded 40 bushels, rye 28, barley 45, maize 80, oats 60, flax 620 lbs. and grass 4 tons to the acre.* The great body of the state is excellent land, fitted for all the purposes of agriculture. Much of it has been under actual cultivation for the greater part of a century, and still retains its original strength. The county of Fairfield is the best in the state, and the farmers there, as a body, are remarkably thrifty and prosperous. The interval land on the Connecticut, in the county of Hartford, is very extensive, and of the same superior quality

* Dr. Dwight's statistical account of New-Haven.

with that in Hampshire (Mass.) Below, its breadth is much narrower. The country along the Quinebog is equally rich and fertile, and is occupied by excellent farmers. Among single townships that of Guilford is probably not surpassed in its soil by any whatever. Those of Brooklyn, Pomfret, and Woodstock are also of superior quality. The land in Connecticut, generally, if left to itself, turns to pasture in a course of years; and, if sufficiently rich, to meadow. The grasses cultivated with the plough are clover and herdsgrass or foxtail. Wheat grows remarkably well, but is apt to suffer from the ravages of the Hessian fly. It is usually blasted, also, in those towns, where the barberry-bush has not been removed. For these reasons rye is much more extensively cultivated. Indian corn or maize is, however, far the most abundant crop, and none can be more advantageous. After maize, rye, and grass, the crop of potatoes is probably of the next consequence. Oats and flax also are raised extensively; barley in less abundance. Every farm has one or more orchards, and the quantity of cider annually made is prodigious. Unfortunately too much of this wholesome beverage is converted into a filthy liquor, called cider brandy. The crops of pumpkins, turnips, onions and beans are also of great consequence to the Connecticut farmer. Immense numbers of neat cattle, and of hogs, are annually fattened upon maize, and the beef and pork of this state are of well known excellence. The quantity of cheese annually made is very great. The dairy of every farm in the state is devoted to this manufacture during the warmest weather; and it constitutes the chief produce of Goshen and Stonington, of Pomfret, Brooklyn, Woodstock, Canterbury, and several other towns on the Quinebog. About 40,000lbs. are made every year in each of the towns of Goshen and Stonington. The number of sheep is very great, and is rapidly increasing. A large flock of merinos was imported into the state about 10 years ago, by Col. Humphreys, and great numbers have been brought in since. They do not degenerate in consequence of the change of climate. The wool of the American sheep is much improved by an intermixture; and the number of the mixed breed is already very large. Ten years hence the state will probably produce fine wool enough to clothe its inhabitants.

Rivers. The Connecticut runs through the counties of Hartford and Middlesex, and for about 12 miles borders that of New-London. It has one fall in this state, at Enfield, 5 or 6 feet in the whole. No canal has been made around it. Between Hartford and Middletown there are shoals, which stretch across the river, and have naturally only 6 feet water over them at high tide, which here increases the depth but 8 inches. There is a bar at the mouth, which, at full tide, has 10 feet water. A company was incorporated in 1800, to deepen and widen the channel between Hartford and Middletown. They have increased its depth every where to 7½ feet. About 3 miles below Middletown the width of the river is suddenly contracted to about 40 rods, by two mountains. The banks elsewhere are generally low, and annually overflowed and enriched in the spring.

The Housatonnuc rises in New-Ashford, in Berkshire county, Massachusetts; and runs in that state, almost due S. watering a fine rich country. It enters Connecticut between Canaan and Salsbury; and about 7 miles from the line, is precipitated over a perpendicular fall, 60 feet in height. Its breadth is here 75 yards. This is the finest cataract in New England; and in the spring, is superior to the Cohoez in the Mohawk. The Housatonnuc runs a little W. of S. to New-Milford; and thence, its course is S. E. by S. to the sound, which it enters between Milford and Stratford. A bar of shells at its mouth prevents the entrance of large vessels. For sloops and brigs it is navigable 12 miles to Derby. Its whole length is about 140 miles.

The Thames has two principal sources. The eastern or the Quinebog, issues from a pond in Sturbridge, Massachusetts, and running S. E. enters this state in Thompson, where it has a fall of 20 feet, and another at Brooklyn of the same height. Its course is W. of S. till it joins the Shetucket, or western branch, 5 miles above Norwich, which is formed by the confluence of the Willimantic, Mount Hope, and several other streams. It keeps the name of Shetucket as far as Norwich, where it receives Little river from the W. Below this for 17 miles to its mouth it has the name of the Thames.

The Paucatuc, for a little distance, constitutes the eastern boundary of the state.

Quinipiac or Wallingford river rises in Southington, near a bend in Farmington river, and winds S. 30 miles to the east corner of New-Haven harbor.

Byram river is a mill stream, forming a part of the western boundary.

Farmington river rises in Sandisfield, Massachusetts, and running southward, near the Hartford county line, receives a western branch, which issues from a pond in Colebrook. Its course thence is S. S. E. to Farmington, where it turns to the N. around the Farmington mountains. After running 15 miles in this direction it receives Salmon river in Simsbury; and breaking through the mountains, forms a considerable cataract. Hence its course is S. E. to its mouth at Windsor, and its whole length is not less than 60 miles. There is strong reason to believe that this river once emptied itself, into New-Haven harbor; and it is said, that at a small expence, its current might be turned back again.

Naugatuc river rises in Norfolk; and running S. by E. falls into the Housatonnuc at Derby, after a course of 45 miles.

Mountains. The Toghconnuc range, commencing in Ridgefield, runs northward near the western line of the state. A branch from this range runs parallel with it on the east side of the Housatonnuc. Mount Tom in Litchfield, the highest summit in this branch, is about 500 feet high. West Rock the southern extremity of the east ridge of the Green mountains is a fine perpendicular bluff, fronting S. 400 feet high, and 2 miles N. W. from New-Haven. East Rock, the southern termination of the Mount Tom range is a similar bluff, 370 feet high, and the same distance

E. N. E. from New-Haven. Mount Carmel, a spur from the same range in Hamden, has a singular break in it, near the W. end. The opening through the mountain is on both sides nearly perpendicular and reaches almost to its base. Towards the N. and S. it gives the mountain a very uncommon, but fine appearance. Its height is about 600 feet. The Blue Hills in Southington are three noble eminences in the same range. The southern, the loftiest, is about 1000 feet high, and is called the highest land in Connecticut. Farmington mountain, in the same range, is a hill of some distinction.

The Middletown mountains commence in East-Haven, and run N. E. through Durham, Middletown and Berlin, crossing the Connecticut river at Stepney and Glastenbury and joining the White mountain range in the eastern part of that township That part of the range called the Middletown mountains has an elevation of 700 or 800 feet.

The White mountain range has no distinguished summits in Connecticut.

Botany. The forest trees of Connecticut are the white, red, black, and mountain oak; chesnut; white, bitter, and shagbark walnut; butternut; common and slippery elm; white and swamp ash; white, red, and sugar maple; buttonwood or plane tree; white, pitch, and yellow pine; double and single spruce; fir; hemlock; swamp and red cedar, and juniper; white, red, and yellow willow; hornbeam; sassafras; pepperidge; thorn locust; white and black birch; yellow, beach, mountain, and black plum; white berried, red willow, and common dogwood; beech; white and black poplar, and aspen; alder; tulip tree or whitewood; basswood; crab apple, and crab pear; and black mulberry.

Animals. Few wild beasts are now to be found in the state, the country is so generally cleared. Red foxes are common; so are the black, red, grey, flying, and striped squirrel; the weazel; the polecat; the muskrat; the racoon, and the woodchuck. Formerly the otter, the beaver, the black and grey fox, and the mink abounded; as well as the wolf, the bear, the deer, the moose, and the wild cat. The wharf rat has almost driven the black or common rat out of the state.

The most common birds in the fields and forests are the crow, blackbird, meadow blackbird, swamp blackbird, pigeon, robin, partridge, quail, snow bird, mock bird, plover, king bird, cat bird, wren, yellow bird, blue bird, humming bird, meadow lark, swallow, chimney swallow, whip-poor-will, lapwing, chaffinch, brant, old wife, kingfisher, wood duck, night hawk, owl, wild goose, wild duck, wild turkey, and snipe.

The principal fish are the salmon, shad, trout, pike, sucker, herring, roach, perch, eel, and cat fish, in the rivers and ponds; and the shark, porpoise, dolphin, halibut, sea bass, black fish, cod, sheep's head, flounder, plaise, white fish, sun fish, and turtle lobster, escallop, oyster, long clam, round clam, crab, and muscle in the harbors.

The common insects are the bee, humble bee, wasp, hornet,

musquitoe, gnat, breeze, spiders, beetle, borer, tumbler, hornbug, catterpillars, millers and butterflies, locust, caty-did,* rose bug, and cricket.

The most frequent reptiles are the black snake, striped snake, adder, rattle snake, racer, and water snake.

Mineralogy. Iron mines are found at Salisbury, Canaan, Colebrook, Stafford, Kent, and Ridgefield; and the metal is abundant. There is a lead mine on the bank of Connecticut river, two miles below Middletown, which was wrought in the revolutionary war, and was productive. Lead ore is also found in Milford. There is a copper mine in Cheshire, but it is not wrought, and another at Simsbury. Copper ore has also been found at Fairfield. There is a mine of cobalt at Chatham, and antimony has heretofore been dug in Glastenbury. Marble abounds in Washington and New-Milford. A quarry of superior fineness and beauty has lately been discovered in Milford, near New-Haven, within a small distance of a boatable stream, which passes into Long Island sound. A beautiful yellow pigment was discovered, in 1809, at Tolland. Very fine white clay has been discovered at Washington, fitted for the manufacture of porcelain. There are quarries of excellent freestone in Chatham, East-Windsor, Northaven, Durham, and other places.

Mineral Waters. A mineral spring at Stafford, 24 miles N. N. E. from Hartford, has obtained more celebrity than any other in New-England. It is a place of considerable resort in the gay season. The principal ingredients in its waters are iron and carbonic acid. Its waters are the most effectual and speedy cure yet known for the salt rheum and other cutaneous affections. There is a spring in Suffield, which has been eminently useful in nephritic complaints. There are several others in different parts of the state.

MIDDLE STATES.

DIVISIONS. BOUNDARIES. CLIMATE.

Divisions. UNDER this grand division is comprehended the following states and territories, viz.

New-York	Michigan	Territories
New-Jersey	Northwest	
Delaware	Illinois	
Pennsylvania	Indiana	
Ohio		

Boundaries. Bounded north by Upper Canada, from which it is separated by the lakes; east by the New-England States; south by the Atlantic Ocean, Maryland, Virginia, and the Ohio river, which separates it from Kentucky; west by the Missisippi river.

* So called from the sound of its chirping.

Climate. The climate of this grand division, lying almost in the same latitudes, varies but little from that of New-England. There are no two successive years alike. Even the same successive seasons and months differ from each other every year. And there is perhaps but one steady trait in the character of this climate, and that is, it is uniformly variable. The changes of weather are great, and frequently sudden. The range of the quick silver in Farenheit's thermometer, according to Dr. Mitchill, is between the 24th degree below, and the 105th degree above cypher; and it has been known to vary 50 degrees in the course of 24 hours. Such alterations are much more considerable along the coast, than in the interior and midland parts of the country; and wherever they prevail, are accompanied with proportionate changes in the air, from calms to winds, and from moisture to dryness. Storms and hurricanes sometimes happen, which are so violent as to overset vessels, demolish fences, uproot trees, and unroof buildings. Droughts for six weeks or two months occur now and then. Rain has been known to fall in such abundance that the earth by measurement has received 6·5 inches on a level, in the short space of four hours.* The quantity of water which falls in rain and snow, one year with another, amounts to from 24 to 36 inches.† In the northern parts of this district the snow falls in larger quantities, lies longer, and the cold is more steady and intense, by many degrees than in the southern; hence the climate of the former is more agreeable in winter, and that of the latter in summer. The warmest weather is generally in the month of August; but intensely warm days are often felt in May, June, August, and September. Dr. Rittenhouse says that during his residence in the country, in the state of Pennsylvania, he had never passed a summer without discovering frost in every month in the year, except July. The greatest degree of heat upon record in Philadelphia in 1789, was 90°. The standard temperature of air in Philadelphia is $52\frac{1}{2}°$, which is the temperature of their deepest wells, and the mean heat of their common spring water. There are seldom more than four months in the year, in which the weather is agreeable without a fire. In winter, the winds generally come from the northwest in fair, and from the northeast in wet weather. The northwest winds are uncommonly dry as well as cold.

The climate on the west side of the Allegany mountains differs materially from that on the east side, in the temperature of the air, and the effects of the wind upon the weather, and in the quantity of rain and snow which fall every year. The southwest winds, on the west side of the mountains, are accompanied by cold and rain. The temperature of the air is seldom so cold or so hot by several degrees as on the east side of the mountains.

On the whole, it appears that the climate of this division of the United States is a compound of most of the climates in the world. It has the moisture of Ireland in the spring—the heat of Africa in summer—the temperature of Italy in June—the sky of Egypt in

* Dr. Mitchill. † Dr. Rush.

autumn—the snow and cold of Norway, and the ice of Holland in winter—the tempests (in a certain degree) of the West-Indies in every season, and the variable winds and weather of Great Britain in every month in the year.

From this account of the climate of this district, it is easy to ascertain what degree of health, and what diseases prevail. As the inhabitants have the climates, so they have the acute diseases of all the countries that have been mentioned. Although it might be supposed, that with such changes and varieties in the weather there would be connected epidemical diseases and an unwholesome climate, yet on the whole, it is found in this district to be as healthy as in any part of the United States.*

NEW-YORK.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. ORIGINAL AND PRESENT INDIAN POPULATION. RELIGION. GOVERNMENT. POPULATION. MILITIA. FINANCES. BANKS. MANNERS AND CUSTOMS. LITERATURE. CITIES AND TOWNS. ROADS. BRIDGES. INLAND NAVIGATION. MANUFACTURES. COMMERCE.

Extent. THIS state lies between lat. 40 40 and 45° N. and between lon. 73° and 79 55 W. The length of the state, on the parallel of 42° is 340 miles. The greatest breadth, from N. to S. is 300 miles; the breadth, from the commencement of the Pennsylvania line, to the St. Lawrence, is 195; the average breadth, between that line and lake Ontario, is 90; and the breadth, at the western extremity of the state, only 10 miles. The number of square miles, exclusive of the islands, is about 45,000.

Boundaries. Pennsylvania, New-Jersey, and Long Island sound bound it on the S. Connecticut, Massachusetts, and Vermont, from which it is separated in part by lake Champlain, on the E. and it has Lower Canada, the St. Lawrence, lake Ontario, Niagara river, and Pennsylvania, on the N. and W. This is the only state which extends across the whole United States, from the Atlantic to the western waters.

Divisions. In 1731, the state had 10 counties; in 1786, 12; in 1791, 16; in 1800, 30 counties, and 305 towns; and, in 1810, 43 counties, and 452 towns. The state is also divided into 4 great districts for the choice of senators, viz. the southern, middle, east-

* The foregoing remarks are grounded on the authorities of Dr. Rush and Dr Mitchill, who have published the result of their inquiries in Mr. Carey's Museum, vols. VI. and VII.

ern, and western. The names of the counties in each district, and their population, in 1810, follow.

South District.

Counties.	Population.
Suffolk	21,113
Queen's	19,336
King's	8,303
Richmond	5,347
New-York	96,373
West-Chester	30,272
Total in South District	180,744

Middle District.

Rockland	7,758
Orange	34,347
Ulster	26,576
Sullivan	6,108
Dutchess	51,434
Delaware	20,303
Greene	19,536
Columbia	32,390
Total in Mid. District	198,452

East District.

Rensellaer	36,309
Albany	34,661
Schenectady	10,201
Montgomery	41,214
Franklin	2,717
Washington	44,289
Essex	9,477
Clinton	8,002
Saratoga	33,147
Total in East District	220,017

West District.

Counties.	Population.
Scoharie	18,945
Otsego	38,802
Herkimer	22,046
Lewis	6,453
Jefferson	15,140
St. Lawrence	7,885
Oneida	33,792
Madison	25,144
Chenango	21,704
Broome	8,130
Niagara	8,971
* Cattarangus, * Chataughque	12,588
Cortlandt	8,868
Onondaga	25,987
Cayuga	29,843
Seneca	16,609
Tioga	7,899
Steuben	7,246
Ontario	42,032
Allegany	1,942
Total in West District	347,418
Total in the state	959,220

This state sends 27 representatives to congress.

Names. New-York and the adjoining territories were originally called New-Virginia. The Dutch gave to this state, in 1614, the name of New-Netherlands. This name it retained till 1664; when, after the duke of York, it was called New-York.

History. Henry Hudson, an Englishman in the service of the Dutch, discovered the river and island of Manhattan in 1609. The next year the Dutch sent ships to open a trade with the natives.

The first effectual settlement was made by them, in 1614, on Manhattan island.

A general battle was fought between the Dutch and Indians, in 1646, at Horseneck, with mutual firmness and obstinacy. The Dutch kept the field.

A trading house was erected by them, in 1651, on a low point of

* Genessee county has been divided into these two.

land, which commanded the Delaware. The next year it was taken by the Swedes, and retaken in 1655.

In 1664, the English, under Richard Nicolls, took the country for the duke of York. The next year a code of laws was prepared, and the year after confirmed, by the duke. By the peace of Breda, in 1667, the Dutch confirmed the colony to the English.

In 1673, an expedition from Holland took the city of New-York; and the whole colony soon after submitted. The following year the country was restored by the treaty of Westminster, and the duke of York took out a new patent.

The first legislative assembly of the province met in October, 1683.

New-York and New-Jersey were, in 1688, annexed to New-England; and Sir Edmund Andros was constituted governor and admiral of the whole, with a legislative council appointed by the king; but the scheme miscarried.

In 1693, Episcopacy was made the established religion of the province.

A French army under Dieskau invaded the province, from Montreal, in 1755, and was routed by the New-York and New-England troops, under gen. Johnson. Montcalm, in 1757, took fort William Henry on lake George. An unsuccessful attack was made by gen. Abercrombie, in 1758, on the French fort at Ticonderoga. In 1759 gen. Amherst took Ticonderoga and Crown Point; and gen. Johnson defeated a French army near Niagara, and took fort Niagara.

In 1765 the stamp act was successfully resisted, and in 1767 the powers of the provincial assembly were conditionally taken away by parliament. The assembly, in 1769, denied the right of parliament to tax the inhabitants.

In Sept. 1776, the British occupied New-York. The battle at White Plains was fought Oct. 28, and fort Washington taken Nov. 16. Ticonderoga and Crown Point were occupied by Burgoyne, in 1777.

On the 20th of April, that year, the state constitution was established.

In 1779 gen. Sullivan undertook an expedition against the Iroquois Indians, and destroyed great numbers of their villages. The British evacuated New-York, in 1783.

Original and present Indian Population. The Iroquois, or Six Nations, occupied a great part of the state, when it was first settled and for a long period afterwards.

The Delawares, a tribe of the Moheakanneew nation, then possessed the S. E. part of the state. Numbers of smaller tribes of the same nation were near them.

The following extract of a letter to the author, from Rev. Mr. Kirkland, late missionary among the Six Nations, gives an interesting account of their views of a future state. "The region of pure spirits, the Five Nations call *Eskanane*. The only characters which, according to their tradition, cannot be admitted to participate of the pleasures and delights of this happy country, are reduc-

ed to three viz. suicides, the disobedient to the counsels of the chiefs, and such as put away their wives on account of pregnancy. According to their tradition, there is a gloomy, fathomless gulf, near the borders of the delightful mansions of Eskanane, over which all good and brave spirits pass with safety, under the conduct of a faithful and skilful guide appointed for that purpose; but when a suicide, or any of the abovementioned characters, approaches this gulf, the conductor, who possesses a most penetrating eye, instantly discovers their spiritual features and character, and denies them his aid, assigning his reasons. They will, however, attempt to cross upon a small pole, which, before they reach the middle, trembles and shakes, till presently down they fall with horrid shrieks. In this dark and dreary gulf, they suppose resides a great dog, some say a dragon, infected with the itch, which makes him perpetually restless and spiteful. The guilty inhabitants of this miserable region, all catch this disease of the great dog, and grope and roam from side to side of their gloomy mansion in perpetual torments. Sometimes they approach so near the happy fields of Eskanane, they can hear the songs and dances of their former companions. This only serves to increase their torments, as they can discern no light, nor discover any passage by which they can gain access to them. They suppose idiots and dogs go into the same gulf, but have a more comfortable apartment, where they enjoy some little light." Mr. Kirkland adds, that several other nations, of Indians with whom he has conversed on the subject, have nearly the same traditionary notions of a future state. They almost universally agree in this, that the departed spirit is ten days in its passage to their happy elysium, after it leaves the body; some of them suppose its course towards the south; others that it ascends from some lofty mountain.

The body of the Six Nations inhabit the western parts of this state. The principal part of the Mohawk tribe reside on Grand river, in Upper Canada; and there are two villages of Senecas on the Allegany river, near the north line of Pennsylvania, and a few Delawares and Skawaghkees on Buffalo creek. Including these, and the Stockbridge and Mohegan Indians, who have migrated and settled in the vicinity of Oneida, there were in the Six Nations, in 1719, according to an accurate estimation made by Mr. Kirkland, 6,330 souls. He adds, that among these there are comparatively but very few children.

The Oneidas inhabit on Oneida creek, 21 miles west of fort Stanwix.

The Tuscaroras migrated from North-Carolina and the frontiers of Virginia, and were adopted by the Oneidas, with whom they have ever since lived. They were originally of the same nation.

The Senecas inhabit on the Genessee river, at the Genessee castle. They have two towns of 60 or 70 souls each, on French creek, in Pennsylvania; and another town on Buffalo creek, attached to the British; two small towns on Allegany river, attached to the Americans. Obeil, or Cornplanter, one of the Seneca chiefs, resided here. A missionary from the society in New-York has been cordi-

ally received by the Seneca and Tuscarora tribes. The state of society and morals is deplorable among these natives. They are, however, becoming somewhat industrious. Their ancient forms of marriage have been omitted for near a century. They mingle together like brutes of the desert. In one Tuscarora village, there is not a single legitimate child, nor a married couple. The Senecas are drunkards, worship the Great Spirit by dances, and the sacrifice of white dogs.

The Mohawks were acknowledged by the other tribes, to use their own expressions, to be "the true old heads of the confederacy;" and were formerly a powerful tribe, inhabiting on the Mohawk river. As they were strongly attached to the Johnson family, on account of Sir William Johnson, they emigrated to Canada, with Sir John Johnson, about the year 1776. There is now only one family of them in the state, and they live about a mile from fort Hunter. The father of this family was drowned in the winter of 1788.

All the confederated tribes, except the Oneidas and Tuscaroras, sided with the British in the late war, and fought against the Americans.

The Onondagas live near the Onondaga lake. In the spring of 1779 a regiment of men were sent from Albany, by general J. Clinton, against the Onondagas. This regiment surprised their town, took thirty-three prisoners, killed twelve or fourteen, and returned without the loss of a man. A party of Indians were at this time ravaging the American frontiers.

There are very few of the Delaware tribe in this state.

The Five Confederated Nations were settled along the banks of the Susquehannah, and in the adjacent country, until the year 1779, when general Sullivan, with an army of 4,000 men, drove them from their country to Niagara, but could not bring them to action. They waited, but waited in vain, for the assistance of the elements, or, as they expressed themselves, for the assistance of the Great Spirit. Had heavy rains fallen while general Sullivan's army was advanced into their country, perhaps few of his soldiers would have escaped, and none of their baggage, ammunition, or artillery. This expedition had a good effect. General Sullivan burnt several of their towns, and destroyed their provisions. Since this irruption into their country, their former habitations have been mostly deserted, and many of them have gone to Canada.

Religion. The great body of the people of this state are Presbyterians. The Episcopalians are probably the next most numerous class. In 1811 they had 42 churches and 47 clergymen. The other denominations are the Dutch Reformed, Baptists, Friends, German Lutherans, Moravians, Methodists, Shakers, Catholics, and Jews. There are also a few of the followers of Jemima Wilkinson.

Religion is not supported by law.

In April, 1784, the legislature of this state passed an act enabling all religious denominations to appoint trustees, not less than three, nor more than nine, who shall be a body corporate, for the purpose

of taking care of the temporalities of their respective congregations, and for the other purposes therein mentioned.

The ministers of every denomination in the state are supported by the voluntary contributions of the people, raised, generally, by subscription, or by a tax upon the pews; except the Dutch churches in New-York, Schenectady, and Kingston. The first has large estates confirmed to it by a charter. The Episcopal church also in New-York possesses a very large estate in and near the city.

Government. The legislature is composed of a senate and house of representatives. A certain number of senators is chosen by each district. They hold their seats for 4 years, and a fourth part of the members is elected every year. The representatives are chosen by the several counties annually. Voters for senators must possess a freehold to the value of $250 clear of debt. Voters for representatives must possess a freehold to the value of $50, or have rented a tenement of 40 shillings yearly value. A council of revision, composed of the governor, chancellor, and the judges of the supreme court, is empowered to revise all bills passed by the two houses, and to return them to the house where they originated. If this is done, two thirds of both houses must repass them, or they are defeated. If it is not done in ten days from the time a bill is passed it becomes a law of course.

The executive is composed of a governor, lieutenant governor, and council of appointment. The governor is chosen every 3 years. The lieutenant governor, chosen for the same time, is president of the senate. The council of appointment consists of the governor and one senator from each district, chosen annually by the legislature. It has the appointment of all subordinate offices, executive and judicial.

The courts in the state are, a high court of errors and impeachment, composed of the lieutenant governor, chancellor, judges of the supreme court, and the senate; a court of chancery, consisting of a chancellor appointed by the council of appointment, a supreme court, consisting of 5 judges appointed in the same manner; a court of admiralty; a court of exchequer; a court of oyer and terminer and general gaol delivery; a court of quarter sessions; county courts consisting of 3 judges; and justices courts. Such parts of the common and statute laws of England, as were recognized in April, 1775, are still parts of the law of the state.

Population. The number of inhabitants was in the year

1749	100,000				
1756	96,775 whites 13,542 blacks	110,317	1800	555,063 whites 20,613 slaves 10,374 free bl.	586,050
1786	220,008 whites 18,889 blacks	238,897	1810	918,690 whites 15,017 slaves 25,333 free bl.	959,049
1790	314,133 whites 21,324 slaves 4,663 free bl.	340,120			

The items of the census of 1810 were as follows:

	males.	females.	total.
Under 16 years of age	239,635	226,756	466,391
Between 16 and 45	180,652	170,944	351,596
45 and upwards	53,985	46,718	100,703
Total	474,272	444,418	918,690

By the table it appears, that the population, in 1756, has been increased, by its whole amount, once in 7 years. The increase, in the last 10 years, was 372,999, and the ratio of increase 64 per cent. Should this ratio continue, the population, in 1820, will be 1,576,720. This state has 160,000 more white inhabitants than any state in the union, and is the second in the whole amount of its population.

Militia. The number of militia, in 1789, was 42,679; in 1790, 44,259; in 1791, 50,399; in 1800, 64,011; and in 1809, 102,068. The whole number of males between 16 and 45 is 180,652.

Finances. New-York is the richest state in the union. The funds of the state, at the commencement of the year 1811, exclusive of the school fund, amounted to $4,191,803·25;* the revenue of which, in 1810, was $278,489·95 Beside this, the receipts of the treasury for that year, from other sources, amounted to $626,042·88. The state debt, at that time, was $380,000. The state also possesses about 1,000,000 acres of land, which still remain to be sold. The estimated expence for the year 1811 was $268,366·22.

Banks. In 1811, there were 15 banks in this state, the capitals of which together amounted to $11,840,000. Of these 5 were in the city of New-York; the capitals of which amounted to $8,050,000.

Manners and Customs. The Dutch were the first settlers of New-York. Their numbers were considerable, in 1664, when the province was taken by the English. They settled chiefly on Manhattan and Long islands, on the Hudson and Mohawk rivers; and their descendants are still found in these places.

The ancestors of the inhabitants in the eastern and middle parts of Long island, where either natives of England or the immediate descendants of the first settlers of New-England, and their manners and customs are similar to those of their ancestors. The counties inhabited by the Dutch, have adopted the English manners in a great degree, but still retain many modes, particularly in their re-

* These funds consisted of

Debt due from the bank of New-York	dolls. 262,091 46
United States 3 per cent. stock	779,655·96
Shares in various banks	773,800·00
Balance due on loans	1,053,411·95
Debts secured by mortgage	600,427·70
Bonds for lands sold	185,205·18
Shares in western canal stock	92,000·00
	4,191,803·25
State debt	880,000 00
	dolls. 3,311,803·25

ligion, which are peculiar to the Hollanders. They are industrious, neat and economical in the management of their farms and their families. Whatever business they pursue, they generally follow the old track of their forefathers, and seldom invent any new improvements in agriculture, manufactures, or mechanicks. They were the first settlers of this state, and were particularly friendly to the English colony that settled at Plymouth in New-England, in 1620; and continued to be amicably disposed towards the English colonies east of them, until the unhappy dispute arose concerning the lands on Connecticut river.

The revolution and its consequences have had a very perceptible influence on a great part of the people in this state. Many, who had been tenants, became freeholders, and experienced a great elevation of mind, as of circumstances; a spirit of liberality was diffused among the Dutch, the clouds of ignorance and national prejudice were dispelled. Schools, academies, and colleges are established and establishing for the education of their children, in the English and learned languages, and in the arts and sciences, and a literary and scientific spirit is evidently increasing.

The manners and character of the inhabitants of every colony or state will take their coloring, in a greater or less degree, from the peculiar manners of the first settlers. It is much more natural for emigrants to adopt the customs of the original inhabitants, than the contrary, even though the emigrants should, in length of time, become the most numerous. Hence it is that the neatness, parsimony and industry of the Dutch were early imitated by the first English settlers in this province, and, until the revolution, formed a distinguishing trait in their provincial character. It is still discernible, though in a much less degree, and will probably continue visible for many years to come.

Besides the Dutch and English already mentioned, there are in this state many emigrants from Scotland, Ireland, Germany, and some few from France. Many Germans are settled on the Mohawk, and some Scotch people on the Hudson, in the county of Washington. The principal part of the two former settled in the city of New-York, and retain the manners, the religion, and some of them the language of their respective countries. The French emigrants settled principally at New-Rochelle and on Staten island, and their descendants, several of them, now fill some of the highest offices in the United States.

Probably two thirds of the population of this state are now composed of New-Englanders, or their immediate descendants. These are, chiefly, emigrants from Massachusetts and Connecticut, and they retain much of the New-England character. Although there is no law of the state to compel the support of clergymen, yet these people are settling them in every town where their numbers are sufficient to maintain one; before the state had paid any attention to the support of common schools, they had established them in almost every settlement. They do not however possess the same correctness of character and manners, which they left behind them. Emigrants, as a body, rarely compose the best part of a

community; and those who went from New-England to New-York, were at once relieved from the operation of many wholesome laws, and from the restraint of a correct public opinion. The violence of party has here, also, been extreme; and the measures adopted by partizans to deceive, to flatter, to bribe, and to corrupt the freeman, have been manifold, unwearied, and too successful. When the New-Englanders settle a town, they usually put up a one story log-house in the wilderness for a temporary residence; and speedily erect a large framed barn, covered with the best materials. In three or four years the log-house gives place to a framed house of two stories; a large tract around it is under good cultivation; and every thing wears the appearance of thrift and improvement. But in towns settled from the other states, or from Europe, the log-house too often remains till it decays, and is then followed by another.

The elections in this state in many places, are noisy and tumultuous; the candidates are determined on before in caucus; and official and pecuniary bribes are common. The laws respecting marriage are extremely loose; and the number of people, who do not regularly attend church, is unhappily great. A large capital has, also, on many points, given law to public opinion and public manners. The towns in this state are too many of them built like cities. The houses are contiguous; and the streets are narrow and dirty, and in some instances paved. The inhabitants thus get city modes of thinking, and living, and city vices. Horse racing is a common amusement here; and is attended with its usual accompaniments, profanity, gambling, quarrelling, and drunkenness. These are too often witnessed at military reviews.

The character and manners of the inhabitants of this large and respectable state are progressively improving, and it has a large body of men in the several professions of distinguished eminence and worth.

Literature. After the revolution, the legislature established a corporation, consisting of 21 members, (two of whom are the governor and lieutenant governor,) who are styled "the regents of the university of New-York." They are entrusted with the care of the literature of the state; have the power to establish and charter colleges and academies; and are to report annually the state of these institutions to the legislature.

There are two colleges in this state. Columbia college, in the city of New-York, was founded in 1754; and till the revolution, had the name of king's college. It is entrusted to a corporation of 24 members. The instructors compose two faculties; a faculty of arts, and a faculty of physic. The faculty of arts consists of a president, provost, and professors of mathematics and natural philosophy, of logic and geography, of languages, of chymistry and agriculture, of oriental languages, of law, and of the French language. The faculty of physic consists of a dean, who lectures on clinical medicine, and of professors of botany, of anatomy, of the obstetric art, of materia medica, of the institutes of medicine, of surgery, and of the practice of physic. The number of

students, under the faculty of arts, is at present small, but is increasing; the others are medical students merely. The college building is a stone edifice, 150 yards from the Hudson; containing 48 chambers, a chapel, dining-hall, library, museum, anatomical theatre, and philosophical chamber. The annual revenue of the collegiate funds amounts to $3,850.

Union college, in Schenectady, was incorporated by the regents of the university, in 1794. The corporation consists of 24 members. The instructors are a president, professors of mathematics and natural philosophy, of Greek, and of Latin, and one tutor. The funds, in 1796, amounted to $42,422·60, and 1604 acres of land. The legislature has since, by lottery, granted the institution about $90,000. This seminary is on the whole flourishing. It has been proposed to remove it westward to Utica.

The state of the academies in the beginning of the year 1799, according to the report of the regents, was as follows:

Clinton academy, at East-Hampton, on the east end of Long island, had, at the period above mentioned, 97 scholars. The academy of Erasmus hall, at Flatbush, Long island, four miles from Brooklyn ferry, 42. Columbia academy, at Kinderhook, from 57 to 70. Hamilton Oneida academy, flourishing. North Salem academy, 55. Oxford academy, 60 to 70. In 1795, Union Hall academy had 55 students. Farmer's Hall academy, including an English school annexed to it, 70. Montgomery academy, 56. Washington academy, 51. In Dutchess county the Friends have a boarding school instituted in 1797 under excellent regulations. "The regents in 1795 had the superintendence of two colleges and twelve academies. These, with the establishment of schools for the common branches of education, must soon have the most beneficial effects on the state of society. The streams issuing from these fountains must enrich the pastures of the wilderness, and cause the little hills to rejoice on every side."

In 1811 there were upwards of 40 academies. A fund, devoted to the support of common schools, amounts to $483,326·29; the income of which, in 1810, amounted to $36,427·64. Beside this, the fund has 314,770 acres of unsold land. A common school is, by law, to be established within the limits of every 4 square miles. A long time probably will be necessary to furnish the state with common schools, on the Connecticut footing; with as good a system, as competent directors, or as unexceptionable instructors.

Cities and Towns. The city of NEW-YORK was founded by the Dutch, in 1614; and was then called New-Amsterdam. It is built on the S. end of the island of Manhattan, an island at the mouth of the Hudson, which has that river on the W; the harbor on the S; the strait which connects Long Island sound with the harbor on the E; and Haerlem creek, which separates it from West-Chester county, on the N. E. The island is 15 miles long, and no where more than 2 wide. Its width at the S. end is less than 1 mile. The harbor is a large bay, formed by the union of the Hudson with the strait of the sound, called East river. It is 4 miles wide from Long Island to the Jersey shore, and extends 9

miles from the city to the Narrows, through which it communicates with the ocean. It has every where sufficient depth for the largest vessels. The city reaches about 3½ miles on the East river, and 2 miles on the Hudson; is, on an average, a mile wide; and is about 8 miles in circuit. The 3 principal streets are Pearl street, Broadway, and Greenwich street. The first is parallel with the East river; the other two with the Hudson; and they all run the whole length of the city. These are intersected, though not at right angles, by streets running from river to river. Pearl street, near the East river, is uneven, narrow, and crooked and is the great seat of business. Broadway, in the middle of the city, is 70 feet wide, and runs N. and S. It is generally very well built. Greenwich street near the Hudson is almost straight, and is wide and handsome. The battery is a fine public walk at the southern extremity of the city, containing several acres. The park is a small field of the same kind in front of the new city hall, containing half an acre. The modern houses in New-York are all of brick, and are generally well built. Many of them are handsome. The old ones are not very numerous; but many of them are of wood, and of a mean appearance. The new city hall is a large and noble building of white marble. Federal hall is at the head of Broad street. The state prison is 2 miles from the southernmost point of the city, on the bank of the Hudson. It is inclosed by a wall 16 feet high, is extensive, but has not been found entirely secure. The city contains 8 Presbyterian churches, 8 Episcopalian, 4 Dutch Reformed, 3 Scotch Presbyterian, 2 German Lutheran and Calvinistic, 3 Methodist, 2 Baptist, 1 Moravian, 1 Catholic, and 1 French Protestant; in all 33, and 1 synagogue.

The population of the city was in the year

1697	4,302	1790	33,131
1756	10,381	1800	60,439
1771	21,863	1805	75,770
1786	23,614	1810	93,914

The inhabitants are more than one third of New-England origin. After these the most numerous are the Dutch, and Scotch; and the English, Irish, and French. The commerce of the city is far before that of any town in America; and, in the course of 20 years, it will probably equal that of any city in the world, except London. It imports most of the goods consumed between the Raritan and the Connecticut, a coast of 130 miles, and between the ocean and the lakes, a distance of 400. This extensive tract is rich, wealthy, and populous. The city contains 10 sugar houses, 15 breweries, 11 distilleries, 9 tan works, and 5 hat manufactories. The citizens suffer from the want of good water; but the markets are uncommonly well supplied with meat, fish, poultry, vegetables, and fruits of every kind, and with all the luxuries of foreign and domestic growth. The city is divided into 10 wards, each of which chooses an alderman. The mayor, one of the most important offices in the state, is appointed by the council of appointment.

Albany was founded by the Dutch in 1623, and by them called Fort Orange. It capitulated, to the English, Sep. 24, 1664.

who called it Albany, in honor of the duke of York and Albany; and was incorporated in 1686. It stands on the W. bank of the Hudson, 160 miles N. from New-York, near the head of sloop navigation. The streets are generally crooked, but several of them are broad and well paved. State street is particularly handsome. Most of the old houses are built in the Dutch style, and are of an indifferent appearance. But the new houses are now the most numerous, and great numbers of them are handsome. The appearance of the city is almost wholly changed from what it was 10 years since. It is now a well built handsome place, and every thing wears the appearance of thrift and improvement. It contains 2 Presbyterian churches, 3 Dutch Reformed, 1 Episcopalian, 1 High Dutch, 1 Methodist, 1 Friends, and 1 Catholic: in all 9. In 1712, the population was nearly 4000, of whom 450 were negro or Indian slaves. In 1797, it had 863 houses, and 6021 inhabitants; in 1810, 9356. A majority of the inhabitants are Dutch, and many of them are New-Englanders. The city is supplied with excellent water by an aqueduct, which conveys it from a copious spring 5 miles distant, and conducts it to every house.

Schenectady was built by the Dutch, upwards of 120 years since; and stands on the S. bank of the Mohawk, 16 miles W. N. W. of Albany, and the same distance from the mouth of the Mohawk. The streets are narrow, dirty, and crooked, and the houses are almost universally of the *Dutch order of architecture*. The public buildings are a Presbyterian, Dutch, and Episcopal church, and the college edifice. The population in 1790 was 3,472; in 1800, 5,289; and in 1810, 5,909. The town has little commerce, and is rather on the decay.

Hudson stands at the head of ship navigation, on the E. bank of the Hudson, 124 miles N. from New-York, and 36 S. from Albany. The first house was erected here in 1784. The population in 1790, was 2,584; in 1800, 3,664; and in 1810, 4,048. The city is laid out in large squares, divided by spacious streets, crossing each other at right angles. Each square contains 30 lots, 2 deep, divided by a 20 feet alley. Each lot is 20 feet in front and 120 deep. Water is brought to the town by an aqueduct from a spring 2 miles distant.

Poughkepsie is on the E. bank of the Hudson, half way between New-York and Albany. It has 5 churches, and a very flourishing academy. The situation of the town is pleasant. Population in 1800, 3,246; in 1810, 4,670.

Brooklyn is 1 mile from New-York, on the opposite side of East river. It contains an Episcopal, a Dutch, and a Methodist church. The shore here is extremely bold. Population in 1800 2,378; and in 1810, 4,402.

Troy is a beautiful town on the E. bank of the Hudson, 6 miles N. from Albany. It contains 3895 inhabitants.

Lansingburg is 3 miles N. from Troy, on the same bank of the river, and opposite the mouth of the Mohawk. Its population is 1658.

Utica is a commercial village of Whitestown on the Mohawk, 100 miles westward of Albany. All these are very thrifty towns.

Roads. The number of incorporated turnpike companies is 135. Their stock amounts to $7,558,000; and their roads, when completed, will extend 4,500 miles, about one third of which is already made. The most important of these is the great western turnpike, reaching from Schenectady to Buffalo on lake Erie, a distance of 300 miles. The road between Albany and Schenectady, 16 miles, belongs to another company, and may be compared with the best in Europe. It cost about $100,000. The turnpike from Catskill west extends upwards of 100 miles.

Bridges. There are 36 bridge companies in the state, with stock amounting to $509,000. Cayuga bridge is across the mouth, of Cayuga lake, on the great western turnpike. Its length is one mile. It is laid out in 210 trestles; each consisting of 3 posts connected by 4 girts, and 4 braces. The posts are driven through the mud 30 feet, to a hard gravel bottom, and are 25 feet apart. The expense was $25,000, and the receipts have generally been about 25 per cent. The Cohoez bridge is thrown across the Mohawk, 10 miles north from Albany, and three quarters of a mile below the falls; which are in full view, and form a magnificent spectacle. It is 960 feet long, 24 broad, and 15 above the river, the bed of which is principally of rock. It is supported by 13 solid stone pillars. Schenectady bridge, over the Mohawk, is of nearly the same length. There is another over the same river, of one arch 80 feet in the chord, 50 miles above Schenectady; and another at Utica, 120 feet long, and also of one arch. There is a fine bridge over the Hudson at Waterford. Staat's bridge crosses Abram's creek a little north from the city of Hudson, and is 250 feet in length. Haerlem bridge crosses Haerlem creek 8 miles from the city.

Inland Navigation. The Hudson is chiefly a long, narrow bay, into which the tide flows 166 miles, as far as Troy. It is navigable for ships of any burthen to Hudson, 124 miles; and, for sloops of 80 tons, to Albany. Ship navigation to Albany is prevented by a number of shoals and islands 6 or 8 miles below the city, called the *Overslaugh.* It is doubted whether there is another river in the world, equally deep for so great a distance, which presents so feeble a current to ships ascending the stream. Lake Champlain bounds the state, on the east, for more than 100 miles, and is every where convenient for sloop navigation. The St. Lawrence stretches along the northwest frontier 120 miles, lake Ontario 200, Niagara river 40, and lake Erie 70.

The canals, partly completed between the Hudson and lake Champlain, have already been described; as well as those which connect Wood creek with the Mohawk, and the contemplated grand canal, between lake Erie and the Hudson.

Manufactures. The following table will exhibit the state of manufactures in 1810, as reported to the secretary of state.

	looms.	woollens.	linens.	mixed.	cotton.	total.	tan works.	distil-leries.	brew-eries.	hat fac-tories.	fulling mills.	carding machines.
Suffolk	1,062	51,220	168,390		4,087	223,697	37				8	7
Queen's	486	51,292	132,936	2,913		187,141	10	2		4	8	4
King's	112	4,301	32,233	3,931		40,465	6	2				
Total in L. Island	1,660	106,813	333,559	6,844	4,087	451,303	53	4		4	16	11
Richmond	59	2,000	23,100	7,000		32,100	2	3				2
New-York	3	2,540	217			2,757	9	11	15	5		2
West-Chester	365	112,190	234,280			346,470	9	16			7	8
Total in S. Dist.	2,037	223,543	591,156	13,844	4,087	832,630	73	34	15	9	23	23
Rockland	329	8,008	20,036			28,044	7	7			1	5
Orange	1,245	95,611	212,529	3,859	4,182	316,181	49	57		9	11	29
Ulster	1,569	87,400	222,042	31,780	7,404	348,626	41	17			15	26
Sullivan	262	13,587	35,347	2,057		50,991	11			3	1	
Dutchess	1,342	128,655	230,404			359,059	80	25	2	22	35	25
Delaware	886	70,571	130,891		724	202,186	29	11		6	13	14
Greene	314	22,189	27,300		868	50,357	25	4			12	11
Columbia	1,235	254 750	341,530		20,500	616,780	34	8	1	8	22	23
Total in Mid. Dist.	7,182	680,771	1,220,079	37,696	33,678	1,972,224	276	129	3	48	110	133
Rensellaer	1,824	157,862	222,049	64,937	2,263	447,111	28	2	1		14	12
Albany	1,169	87,272	145,282			232,554	31	4	5	10	10	8
Schenectady	30	2,500	5,000			7,500			1		1	4
Montgomery	1,288	85,861	150,136		1,255	237 252	45	6			20	19
Franklin	63	5,138	9,913	859		15,910					2	2
Washington	2,200	384 359	356,754		51,141	792,254	37	2	1	11	18	13
Essex	272	69,857	34,428			104,285	7	8			4	6

	looms.	woollens.	linens.	mixed.	cotton.	total.	tan works.	distil-leries.	brew-eries.	hat fac-tories.	fulling mills.	carding machines.
Clinton	218	23,795	24,068			47,863	12			1	4	4
Saratoga	1,133	171,789	194,976			366,765	33	2		14	16	7
Total in E. Dist.	7,997	988,433	1,142,606	65,896	54,659	2,251,494	193	24	8	36	88	75
Scoharie	736	53,098	112,128	3,909	2,823	171,953	14	4			13	12
Otsego	2,037	143,728	327,088			470,816	36	28	1	4	32	27
Herkimer	1,600	95,590	190,945		10,000	296,535	31	14		11	16	14
Lewis	306	25,500	50,000	1,000		76,500	11	7			4	4
Jefferson	660	51,013	106,623	1,475	1,392	160,503	16	16	2	9	8	5
St. Lawrence	247	19,047	36,000	1,026		56,073	12	2			5	2
Oneida	720	159,622	12,791	1,040	80,817	254,270	20	24	4	2	24	10
Madison	1,468	120,452	225,397		5,026	350,775	31	27	2		13	13
Chenango	890	64,783	149,510	8,278	3,278	220,849	8	25	4		13	13
Broome	409	22,816	63,455	19,939		106,210	6	9		1	1	
Genesee, Niagara, Cattarangus, Chataughque	600	57,325	131,729		5,645	194,719	24	19	1		6	7
Cortlandt	400	25,400	39,000		2,826	67,226					7	4
Onondaga	1,016	107,470	197,106		3,000	307,576	31	26	2	10	16	21
Cayuga	1,360	120,346	216,805	3,720		340,871	19	47			11	11
Seneca	601	49,473	115,585	5,620	2,095	172,713	15	26			7	10
Tioga	289	24,737	67,340	7,988	2,015	102,080	7	29			5	5
Steuben	309	25,937	63,687		4,416	94,040	5	21			5	2
Ontario	1,903	195,551	329,226			524,777	37	76			20	22
Allegany	51	3,162	11,679		807	15,148	2	4				
Total in W. Dist.	15,602	1,365,045	2,445,995	45,127	123,775	3,983,734	325	404	16	31	206	182
Grand Total	33,068	3,257,192	5,399,836	162,563	216,199	9,035,790	867	591	42	124	427	413

Returns of tow cloth were made from two counties only, viz. Rockland, 57,961 yards; and Greene, 4,963 yards; which, added to the above, makes the whole number of yards of cloth manufactured in the year 1810, 9,098,713.

The number of paper mills in the state was then 28; of glass works 6; of powder mills 2; of rope walks 18; of sugar houses 10; of oil mills 28; of blast furnaces 11; of air furnaces 10; of cut nail manufactories 44; of forges 48; of trip hammers 49; of rolling and slitting mills 1; and of cotton manufactories 26.

The following is the value of the various manufactures:

Cloth	$5,682,828·62	Cordage	538,000·00
Leather	1,299,542·16	Refined sugar	420,706·00
Distilled liquors	1,685,794·40	Oil	49,283·75
Malt liquors	340,765·68	Cut nails	276,932·80
Paper	238,268·00	Other iron	651,980·00
Hats	249,035·00		
Glass	716,800·00		$12,109,536·48
Powder	10,400·00		

The quantity of salt, made in that year, was 525,000 bushels; of which 453,840 were made at Onondaga, 54,000 in Cayuga county, and the remainder in the counties of Genesee, Seneca, and Ontario. Silk, to the amount of 2240 skeins, was made at Cayuga. The article of flour probably exceeded in value either of those in the table; the quantity of pot and pearl ash and maple sugar is also very great; but we have seen no returns of the quantity or value of either of the three.

Commerce. The amount of exports from this state was, in the year 1807, $26,357,963, and in 1810, $17,242,230. Of these last, $10,928,573 were of domestic produce and $6,313,757 of foreign. The shipping belonging to the state, in 1809, was 251,525 tons, beside that on lakes Erie, Ontario, and Champlain. Wheat is the staple of the state. The other great articles exported are Indian corn and meal, lumber, iron, pot and pearl ash, naval stores, fish, and refined sugar; beside the productions of the south and of foreign countries. Probably more than one third of the domestic exports of this state is derived from New-England and New-Jersey.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. BAYS. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITIES. ISLANDS.

Climate and Seasons. THIS state stretches through more than 4 degrees of latitude. There is considerable diversity in the temperature of the two extremes. The greatest range of the thermometer is from 24° below, to 95° above the cypher of Fahrenheit.

The climate of the countries between lake Ontario and Pennsylvania is much warmer than that of those farther east. The earliest forest trees in this tract put forth their leaves in the first week of May; and the oak and other late trees by the 20th. Maize is planted between the 15th and 25th. Rye begins to ripen, and hay to be cut, about the 4th of July; and wheat about the 20th. The shallow ponds and brooks freeze early in October, and snow commonly falls by the 20th of November. It seldom exceeds a foot in depth. Cattle are sometimes kept in pastures till January, and on the Genesee flats nearly the whole winter. The fever and ague is the common disease throughout the state. It prevails on the Hudson, and on lake Champlain, on the Mohawk and the St. Lawrence, on the Chenango and the Oswego, on the Genesee and the Niagara. The country, between Pennsylvania and lake Ontario, is the least healthy part of the state. Malignant bilious fevers are very common, and prove extremely prejudicial to strangers. This is particularly true on the banks of the Genesee. They occur also frequently between Champlain and the St. Lawrence.

Face of the Country. That part of the state which lies between the Hudson and Chenango may be characterized as mountainous, and the direction of the ranges is from S. W. to N. E. A narrow tract on and near the Pennsylvania line is generally hilly. The country between that and lake Ontario is an extensive level, without a hill in the whole extent deserving the name of a mountain. The country around lake Ontario, on the S. and E. has a very singular surface. Lake Erie is more than 300 feet above lake Ontario. The country around it is of course much higher. This high tract, is a level and reaches eastward a great distance. The descent from it towards Ontario is not irregular and imperceptible; but is made by three successive pitches, or steeps, with a wide interval of level land between them. Two of these extend eastward from the bank of the Niagara, nearly parallel with each other, and about 14 miles apart. The upper or southern pitch commences at Buffalo, at the mouth of lake Erie. The middle pitch commences at the falls; and, after an eastern course of 50 or 60 miles, bends towards, and approaches the upper; after which they both take a southern direction for 30 miles, and meet the Genesee. That river falls 60 feet over the upper, and in no great distance, 90 more over the middle pitch. These falls are about 30 miles south from the western turnpike in the township of Avon.* On the eastern side of the Genesee these pitches diverge. The upper stretches a little north of east around the mouth of Canandagua lake to the west side of the Seneca, and thence runs south between that and Crooked lake, to the high grounds of the Tioga. The other passes north of Seneca, Cayuga, Owasco, Skeneateles, and Otisco lakes; and thence keeps an eastern direction to the hills, from whose southern declivities flow the Chenango and Unadilla. The northern or lower pitch branches

* Formerly called Hartford.

from the middle one near the Eighteen Mile Run; (a stream which empties 18 miles east from the Niagara;) and diverging northward, proceeds with a progress sometimes indistinct to the lower falls of the Genesee; the descent of which is 96 feet, and their distance from its mouth 10 miles. Here it crosses the river; and, assuming more the appearance of a ridge, stretches eastward to the falls of the Oswego, 12 miles from its mouth. We know not whether this ridge here turns to the north, and forms the lower cataract of the eastern rivers of lake Ontario.

The country in the northeastern part of the state is generally hilly; and the height of land, between Champlain and the St Lawrence, is a range of mountains of considerable height. A strip of land about 30 miles wide along the St. Lawrence is uneven. At that distance it becomes rough and broken.

Soil and Agriculture. The whole tract of country between the Susquehannah and the Genesee is very fertile. This is particularly true of Seneca county, which lies between Seneca and Cayuga lakes, of the valley of the Chenango, and of the Genesee flats. These last include a strip of about 60,000 acres, lying on both sides of the river, in some places nearly two miles wide. These flats produce 100 bushels of maize to the acre, and are probably as rich as land can be. West of the Genesee the soil is less uniformly good. That near lake Ontario is the best. An extensive tract lying west from Massachusetts, and including the counties of Rensellaer, Columbia, Greene, Scoharie, Albany, and Schenectady, has but an indifferent soil. Dutchess and West-Chester are excellent land, and in high cultivation. The country along the Mohawk, west of the Oneida village, is very rich. The extensive flats of Herkimer have been cultivated a long period, and have lost none of their fertility. In the counties southeast of the Chenango, the hills are covered with fine timber, and when cleared make excellent pasture; and the intervening vallies produce grass and every kind of grain in abundance. The country north of the Mohawk is also generally fertile. The basis of the soil within 20 miles of the St. Lawrence is a stiff clay, on the high grounds covered with loam, and in the low grounds appearing on the surface. The lands along the Black river are among the best in the state.

Wheat is more extensively raised in this state, than all other grains. The next after it, is maize. This and peas are exported in large quantities. Rye is chiefly raised for the distilleries, and barley for the breweries. Dutchess county is one of the oldest, and is under the best cultivation. In the new settled parts of the state the farmers have such an abundance of excellent land that they pay little attention to improvements in agriculture.

The returns lately made to the secretary of state were incomplete respecting the agricultural concerns of New-York. The number of *sheep* returned for Dutchess was 83,855, for Albany 34,342, for Jefferson 20,000, for Cayuga 49,872, and for Onondaga 44,893: in all 232,962 in a population of 157,135. The same proportion for the whole state exclusive of the city would make

the whole number of sheep upwards of 1,280,000. The number of *horses* returned for Dutchess was 14,341, or nearly 1 to 3½ individuals; and of *neat* cattle to 51,650, or more than 1 to an individual. A similar calculation gives the whole number of the first 247,000, and of the last 886,000.

Rivers. Niagara river and the St. Lawrence are both on the frontiers. The Hudson, which runs wholly in this state, has already been described. The Allegany, Susquehannah, Delaware, Passaic, and Hackensac all find their sources here.

The Mohawk rises N. of Fort Stanwix or Rome, 8 miles from Black river, and running S. 20 miles to the site of the old fort, there turns eastward. Its course is thence E. by S. 130 miles, to the Hudson, into which it empties opposite Lansingburg, 169 miles above New-York. The descents and distances on this river, by an accurate admeasurement, are as follows:

	miles.	feet.
From fort Stanwix to Little Falls	48	59½
Little Falls	¾	42
Thence to Schenectady	57½	110½
Thence to Lansing mills	12½	28¼
Thence to the Hudson, including the Cohoez (70 feet)	4¾	140
	123¼	380¼

The Mohawk runs in a deep ravine, and is wild and impetuous. There is generally along its banks a vale of rich soil. But, in various places, spurs from neighbouring hills project themselves to the edge of the river. Its chief tributaries from the N. are Great and Little Canada creeks. The former empties at Herkimer; the latter 13 miles below. They are long, rapid, and unnavigable; and run in deep ravines, in the midst of an exceedingly rich and productive country. On the S. the Scoharie, descending from the Catskill mountains, rolls northward with the impetuosity of a torrent, and joins the Mohawk at Fort Hunter. Its waters have scooped out a wide and deep ravine for more than 80 miles.

The Genesee rises in Pennsylvania, a few miles from its N. line, and pursues a northwesterly course of about 50 miles, and then a northeasterly one of 70, to lake Ontario. Its falls and flats have been mentioned. In the spring, this river is a torrent; in the autumn it is nearly dry.

Oswego river has two principal branches. The eastern branch rises about 20 miles N. of Rome, where it is called Wood creek. From Rome it runs westward to the E. end of the Oneida lake; 23 miles by its meanders, but only 14 as straightened by 13 canals. In this distance it falls 60 feet; and 1½ mile from the lake receives Fish creek from the N. along whose banks, for 20 miles from its mouth, the Oneida Indians have reserved half a mile, on each side, for the purpose of taking salmon. Issuing from the W. end of the Oneida, it takes the name of Onondaga, which it retains to the Three river point; meandering 18 miles to accomplish 8. Here it receives the Seneca, or the western branch, and takes the name of the Oswego. Its course hence is N. W. 45 miles, to lake On-

tario. Between this lake and the Oneida the whole descent is 130 feet. The chief fall is 12 miles from the mouth of the Oswego, and thence there is a continued rapid to lake Ontario. The other branch, Seneca river, finds its most distant source in that of Meed creek on the west side of Canandagua lake. Thence it winds N. and E. about 40 miles, and receives the waters of that lake through a river of the same name. About 20 miles farther east, (the last 15 of which are boatable,) it is joined by the river Scayace, (the common outlet of Crooked, Seneca, and Cayuga lakes,) and there first takes the name of Seneca river. Proceeding northwardly, it receives the waters of Owasco and Skeneateles lakes; and, after flowing through Cross lake, those of Salt or Onondaga lake, and lake Otisco, by the same channel, mingles with Onondaga river.

Black river heads near the sources of Great Canada creek, and runs S. W. 20 miles. There bending N. N. W. in about the same distance it receives Moose creek from the E. As they unite, they rush over a precipice 63 feet perpendicular, into a broad bason. Hence it flows, a broad and quiet stream, 42 miles in the same direction; when, passing an inconsiderable fall, it turns W. by S. and, after a course of 25 miles, empties into Hungry bay, 20 miles S. of the outlet of lake Ontario.

Racket river rises near the Hudson, and at first runs N. E. It has a portage of 1 mile to Moose creek, and of $1\frac{1}{2}$ mile to the Hudson. After passing through three considerable lakes, the lowest of which is 40 miles from its source, it runs N. W. 50 miles, and in this distance has more than 20 falls and rapids; some of which are 20, others 40, and one 150 feet high. In this distance it is generally 100 yards broad; but, in one place, only 5 feet. Turning again to the N. E. it has a gentle current for 30 miles to the St. Lawrence.

Grass river runs N. W. about 50 miles, and N. E. 40, emptying a little W. of Racket river.

The Oswegatchie, heads near some of the branches of Black river and pursues an uncommonly crooked course of 80 or 90 miles to the St. Lawrence. It receives, 7 miles above its mouth, the waters of Oswegatchie lake from the S. W.

St. Regis and Salmon rivers both run the chief part of their course in New-York, and fall into the St. Lawrence in Canada.

Big Chazy river falls into lake Champlain, a few miles from Canada, and is navigable 7 miles. The Saranac heads in several lakes near Racket river, and runs N. E. 70 miles, emptying into the same lake at Plattsburg. Sable river, a little S. of this, has a remarkable succession of falls; the greatest of which is 40 feet, and the whole descent 200. At the foot of the greatest the water is unfathomable. The stream is here contracted by rocks 40 feet high, to a breadth of 40 feet.

The chief tributaries of the Hudson are, on the E. Battenkill and the Hoosac and the Croton; and, on the W. beside the Mohawk, the Sacondaga, Catskill, Esopus creek, and Wallkill.

The Chenango is a considerable branch of the Susquehannah. The Tyoga the chief western branch of that river receives Cawan-

isque, Conesteo, and Conhocton creeks, and is itself boatable 50 miles.

Cattesaugus and Buffalo creeks fall into lake Erie; and the Tonewanto empties into the Niagara, after a course of 40 miles; of which it is boatable, after its fall of 25 feet over the upper pitch, 28 miles.

Lakes. Erie, Ontario, and Champlain each form a part of the boundary of New-York.

Lake George lies S. W. of lake Champlain and is 37 miles long, and from 1 to 7 broad. On each side it is skirted by lofty mountains. Its banks however are uncommonly regular and handsome; and its water is so transparent, that the bottom is visible at almost any depth. It embosoms more than 200 beautiful islands, most of which are covered with white pine, cedar, spruce and hemlock trees. It falls into lake Champlain by a channel 3 miles in length, in the course of which its waters fall upwards of 100 feet. Scaroon lake, in Montgomery county, is one of the sources of the Hudson, and is 12 miles long and 1 broad.

Oneida lake is 20 miles long and 5 broad. It abounds in the salmon of the lakes. From the south it receives the waters of Cazenovia lake, through the Chittenango.

Onondago, or Salt lake, is 6 miles long and 1 broad. On the S. W. it receives the waters of the Otisco, by a stream 16 miles long; and, at the N. end, flows through a short channel into Seneca river. Skeneateles lake is 14 miles long, and 1 broad. Its waters flow into Seneca river, where it enters Cross lake. Owosco lake is 11 miles long and 1 broad, and is discharged into the same river.

Cayuga lake is 40 miles long, and from 2 to 4 broad, abounding with salmon, bass, eels, and cat fish.

Seneca lake is 40 miles long, and from 2 to 3 wide. Its outlet, the Scayace, runs N. of E. 12 miles, and falls into Cayuga lake near its mouth. Its length, from that lake to mud creek, is about four. Crooked lake is 15 miles long and from 1 to 2 wide. A short stream connects it with the Seneca. Canandagua lake is 15 miles long and nearly 2 broad. Mud lake, Honeyoy, Hemlock, and Canesus lakes are from 5 to 7 miles long.

Chataughque lake lies 9 miles from lake Erie. It is 18 miles long and 3 broad. Its waters flow through Connewango creek into the Allegany. Boats go from the head of this lake to New-Orleans.

Otsego and Caniaderago lakes are the two sources of the Susquehannah. The first is 9 miles long and 1 wide. The other is nearly as large.

Oswegatchie lake is 18 miles long, and nearly parallel with the St. Lawrence.

Bays. New-York bay is 9 miles long and 4 broad, and spreads to the southward of Manhattan island; having Long island on the E. and New-Jersey and Staten island on the W. On the N. it opens into the Hudson; on the N. E. through East river, into the Sound; on the W. between Staten island and Bergen neck into

Newark bay; and on the S. between Staten and Long islands, through the *Narrows*, into Amboy bay and the Atlantic.

South bay is an arm of lake Champlain, at its southwestern extremity. Wood creek flows into the strait which joins it with the lake.

Hungry bay is an arm of the Ontario, 20 miles S. of the St. Lawrence.

Mountains. The Catskill mountains are the highest land in the state. They lie within 2 miles of the Hudson, are estimated to exceed 400 feet in height, and are said to be the N. E. termination of the Allegany ridge. Roundtop mountain, near Catskill (measured by Lieut. Partridge) is 3566 feet above the level of the sea and High Peak, in the same vicinity, is 3486 feet. A part of Taghconnuc mountain is in Columbia county. The highlands front upon the Hudson for 18 miles, and are between 40 and 60 N. of New-York. They are the N. E. termination of the Blue ridge.

Botany. The most common forest trees west of the Chenango are the sugar maple, beech, basswood, oak, and elm. The hilly parts are generally covered with oak. Here and elsewhere also are found the pine, spruce, whitewood, wild cherry, white, black, and shagbark walnut, wild plum, sassafras, dogwood, cedar, fir, butternut and aspen. Of shrubs and plants the most noted are wild hops, fox grapes, ginseng, sarsaparilla, snakeroot, spikenard, mandrake, wild gooseberry, and cranberry.

Zoology. Bears and wolves still abound in the forests; also deer and elks. Squirrels are astonishingly numerous.

Minerals. Iron ore is spread over the state. Lead is found in Herkimer county and silver at Philipsburg. Mines of zinc and copper have been discovered. Slate and plaster of Paris are abundant. Coal, sulphur, marble and ising glass have also been found.

Mineral Waters. The salt springs have already been noticed. Ballstown springs, 30 miles N. of Albany, are in the bottom of a bason of about 50 acres in extent. The soil, for 6 miles around, is poor and sandy. The waters are strongly impregnated with iron, soda, common salt, and carbonic acid. Their temperature in summer is 49° of Fahrenheit. They are deemed a specific in loss of appetite and indigestion, and are highly serviceable in hypochondriac and bilious cases, in obstructions and cutaneous disorders, and in the stone and gravel. They are hurtful in inflammatory disorders and consumptions.

Saratoga springs are 10 miles northeast from Ballstown, in a shallow vale or marsh. The ingredients are the same in both springs, but are strongest in those of Saratoga One of these springs is covered by a natural calcareous curve in shape of he frustum of a cone. It is 6 feet high, and the orifice at the top is 6 inches over.

New-Lebanon spring is in the township of Canaan, 29 miles S. W. from Albany. It is on the south side, near the bottom of a gentle ascent, a few rods west from the Massachusetts line. The waters are warm, and their mineral properties are not very strongly marked.

In the town of Rensellaer, nearly opposite Albany, a mineral spring has been discovered, with many of the properties of those of Saratoga.

In Farmington, 12 miles from Geneva, there are two large sulphur springs about 100 rods apart. Around each the sulphur is for some distance 3 or 4 feet deep. There is another in Litchfield, 15 miles south from Utica. There is also a spring which emits a highly sulphureous smell on the west bank of Racket river, 12 miles from its mouth.

Natural Curiosities. The falls of Niagara have already been described.

There is a singular cave at Rhinebec in Dutchess county. The entrance between two large rocks on the declivity of a steep hill, is a short and small horizontal passage, to a narrow perpendicular passage, about 10 feet long, from 8 to 10 broad, and 4 high. A narrow passage conducts from this to a second room, 13 feet long, but higher and broader than the first. Numerous calcareous stalactites depend from the roof of this room, and some stalagmites rise from the floor. These in various places have met, and form solid pillars reaching from the roof to the floor, some of more than two feet in circumference. This cave was discovered, in 1792, by a lad, accidentally passing near its entrance. On prying into the gloomy recess, he saw a ladder placed in the perpendicular passage, at the foot of which he found several bits of cloth and pieces of leather scattered about the floor. Probably it had been the resort, during the war, of some of that numerous class of mankind, who find day light a serious inconvenience.

In Willsborough, on lake Champlain, is a curious split rock. The whole coast of the lake, for a number of miles, is formed by rude and rocky mountains, which seem to hang over the water, and threaten the passing sailor. From one extremity of these cliffs a rocky promontory projected about 50 yards into the lake. By some violent convulsion of nature it has been broken off, and removed from the main rock about 20 feet. The opposite sides exactly fit each other, the prominences of each corresponding perfectly with the cavities of the other. The point broken off contains about half an acre, and is covered with wood. The height of the rock, above the water, on each side of the fissure is about 12 feet.

In Montgomery county, a small, but rapid stream, falls into Scroon or Scaroon lake. At some distance above its mouth it runs under a hill, whose base is 60 or 70 yards in diameter, forming a curious and beautiful arch in the rock, as white as snow.

In the southeast part of lake Erie, about 20 rods from the shore, there is a curious spring, which boils up from the bottom of the lake. The water is here $4\frac{1}{2}$ feet deep. The water of the spring rises with some force through that of the lake, and may be collected. It takes fire when a brand is thrust into it; and, when drank, proves a powerful emetic.

On the north side of the mountains, in Orange county, is a very valuable tract called *Drowned Lands*, containing about 40 or 50,000

acres. The waters, which descend from the surrounding hills, being but slowly discharged by the river issuing from it, cover these vast meadows every winter and render them extremely fertile; but they expose the inhabitants in the vicinity to intermittents. The Wallkill river, which passes through this extensive *amphibious* tract, and empties into Hudson river, is, in the spring, stored with very large eels in great plenty; the bottom of this river is a broken rock; and it is supposed, that for 2000l. the channel might be deepened so as to let off all the waters from the meadows, and thereby redeem from the floods a large tract of rich land, for grass, hemp, and Indian corn.

Islands. *Long island* is separated from Connecticut and the county of Westchester, by the sound; from York island by the East river; and from Staten island by the Narrows. It is 140 miles long, and from 1 to 15 broad. When first discovered, Wayandance, the principal sachem in Suffolk county, lived at Montauk. The names of the tribes in the eastern part of the island, when it was discovered, were the *Matinicocs*, west of Huntington; the *Massapeags*, in the south part of that town; the *Sicatugs*, in Islip; the *Nipaquaugs*, in Smithtown; the *Shinnacocs*, in Southampton; the *Corchangs*, in Southold; and the *Montauketts*, in Easthampton. A few of their descendants are still found on Montauk. In 1633, Sassacus, the Pequod sachem, had for some time exercised royal power over these Indians; and, after the destruction of the Pequods, the colony of Connecticut had jurisdiction over this part of the island. Its territorial right appears not to have been relinquished, till the year 1664. The population of the island, in 1790, was 41,782; in 1800, 42,097; and in 1810, 48,752. It is divided into 3 counties, King's, Queen's, and Suffolk. King's, at the west end of the island, is 10 miles long, and 8 broad, contains 6 townships, and is inhabited chiefly by Dutch. Its largest town is Brooklyn.

Queen's lies east of King's, is 30 miles long, and 12 broad, contains 6 townships, and is inhabited partly by Dutch and partly by English. Hempstead, the most populous township, contains 5804 inhabitants. Suffolk is 100 miles long, and 10 broad, and comprehends two thirds of the island. It contains 9 townships, and is inhabited almost wholly by English. It was first settled by emigrants from Lynn, in Massachusetts. A ridge of hills extends, on the north side of the island, from Jamaica to Southold. The north side is chiefly flat land, naturally covered with yellow pines. King's county, and the western part of Queen's, have been rendered fertile and productive by husbandry. The greater part of Suffolk has a poor, thin soil, and much of it is not worth cultivating. The north side is the best. The productions are cattle, sheep, hogs, poultry, cord-wood, clover seed, flax seed, barley, maize, hops, deer skins, and venison for the New-York market. Hempstead plain, in the eastern part of Queen's, is 16 miles long from east to west, and 8 broad. It is a perfect level, covered with nothing but a wild, rank grass, except in three or four places, in which are found a few trees of stinted growth: (these places are

called *Islands*.) The soil of the plain is black, and apparently rich; but it is, in fact, remarkably barren. It is an immense open common, on which a considerable number of cattle graze, during the warm season, for a meagre subsistence. It is a favorite race ground with the New-York sportsmen, and numbers of them come here annually to shoot plover, which are very abundant. South of the plain, lies another, 2 miles wide, called the *Shrub-oak plain*, from its being every where covered with shrivelled shrub-oaks, none of which are above 4 feet high, and many of them probably 100 years old. Great numbers of deer and growse occupy this strange retreat. An extensive shrub-oak plain also lies on the eastern border of Hempstead plain, but is in Suffolk county.

The eastern end of the island opens like a shark's mouth. The southern promontory is the township of Easthampton, and is 20 miles long and rarely more than 1 wide. The extremity is a cape, well known to mariners, called Montauk point; on which a light-house is erected, 100 feet high from the surface of the hill, and 170 from that of the ocean. The country west of the point for 7 miles is somewhat uneven; but is solid land with a tolerable soil, and is covered with grass. West of this for 11 miles lies a narrow marshy sand beach, which has been gradually gained from the ocean; although, in high tides, its waves, even now, claim the greater part of it. Its Indian name was *Niepeag*, or *water land*. The land west of this beach for two miles is a high sandy plain, in which the sand is blown by the winds into hills of every variety of form. The northern promontory is chiefly in the township of Southhold, and is 12 miles long, and every where narrow. Its cape is called Oyster point bay.

The bay between these two promontories is called Great or Peconic bay. A town at the head of the bay is called Riverhead. It embosoms a number of islands. Of these Gardiner's island is 7 miles long, contains 3000 acres, was settled in 1639 by Lion Gardiner, and is now the property of one of his descendants. Shelter island, called by the Indians *Lanhansac-a-haquatwomac*, or *the island sheltered by other islands*, contains about 4000 acres; and is separated by two ferries of $\frac{3}{4}$ of a mile from Southold, and one of the same width from Hog's neck in Southampton. Robin's island contains 400 acres of middling land, and produces wood, bricks, corn, and wool. The principal bay on the N. side of the island is Huntington harbor.

The principal rivers are Peconic river, which empties into Great bay, Connecticut river which empties on the S. side of the island. Roconkama pond, near the centre of the island, between Smithtown and Islip, is observed to rise and fall every 7 years. On the S. side of the island, a narrow beach puts out westward from Southampton, reaching to the west end of the island, and is not less than 100 miles long. There are various inlets through the beach, which admit vessels of 60 or 70 tons. The long narrow bay formed by the beach is, in the widest places, 3 miles broad.

Manhattan island has already been described.

Staten island, 9 miles S. of Manhattan island, is separated by

Arthur Kull sound from New-Jersey, on the N. and W.; has York bay on the N. E. the Narrows on the E. and Amboy bay on the S. 10 It constitutes the county of Richmond, is 18 miles long, and 6 or 7 broad. It contains 4 townships. The population in 1790, was 3835; in 1800, 4563; in 1810, 5347. The inhabitants are chiefly of Dutch and French extraction. The land is generally rough and hilly; but on the south side is a considerable tract of level good land. The chief village is Richmond, in the township of Southfield. Fresh Kill is the name of the largest creek.

Fisher's island lies off Stonington harbor in Connecticut. It is 9 miles long, and contains about 4000 acres, and 9 or 10 families. It is included in the township of Southold. The land is uneven. The produce is corn, sheep, and cheese.

Rom islands are two small islands between Fisher's island and Connecticut.

Great and Little Gull islands lie west of Fisher's island. The first contains 12 acres of fine, rich soil; the last is a rock of half an acre, on which a lighthouse is erected.

Plum island lies west of these, and is separated from Southold by a strait of $\frac{3}{4}$ of a mile, called Plum Gut. It contains 800 acres of excellent land, and was bought of the old Long island sachem, Wayandance, in 1657, by Samuel Wyllys, of Hartford, for a barrel of biscuit, and 100 fish-hooks and muxes (a kind of broad awl.) Its shores abound with black fish and lobsters.

Grand isle, in Niagara river, belongs wholly to the state of New-York. It is 6 miles long, and 3 broad. The south end is 4 miles from Buffalo.

NEW-JERSEY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. MANNERS AND CUSTOMS. LITERATURE. CITIES AND TOWNS. PRACTICE OF PHYSIC. PRACTICE OF LAW. ROADS. BRIDGES. MANUFACTURES. COMMERCE.

Extent. NEW-JERSEY is situated between lat. 39° and 41 24 N. and between lon. 74° and 75 29 W. It is 160 miles long, from N. to S. Its least breadth, in the centre, is 42 miles; the greatest breadth, in the north, is 70, and in the south, 75. The state contains about 8320 square miles, or 5,324,000 acres.

Boundaries. On the N. is New-York, from which it is separated by a line drawn from the mouth of Mahakamak river, in lat. 41 24, to a point in Hudson river, in lat. 41°; on the E. and S. E. it has Hudson river, New-York bay, and the Atlantic ocean; on the S. W.

and W. Delaware bay and river, which separate this state from the states of Delaware and Pennsylvania.

Divisions. The state is divided into 13 counties and 116 towns.

Counties.	No. of towns.	Population. in 1790.	in 1800.	in 1810.	Chief towns.
Cape May	3	2,571	3,066	3,632	
Cumberland	8	8,248	9,529	12,670	Bridgetown
Salem	9	10,437	11,371	12,761	Salem
Gloucester	10	13,360	16,115	19,744	Woodbury, Gloucester
Burlington	12	18,095	21,521	24,979	Burlington, Bordenton
Hunterdon	10	20,253	21,261	24,553	Trenton
Sussex*	15	19,500	22,534	25,549	Newtown
Bergen	7	12,601	15,156	16,603	Hackinsac
Essex	10	17,785	22,269	25,984	Newark, Elizabethtown
Middlesex	8	15,956	17,890	20,381	Amboy
Monmouth†	7	16,918	19,872	22,150	Freehold
Somerset	7	12,296	12,815	14,728	Boundbrook
Morris	10	16,216	17,750	21,828	Morristown
Total 13	116	184,139	211,149	245,562	

Name. In the original patent by the duke of York to lord Berkely and sir George Carteret, the province is called *Nova-Cæsarea*, or *New-Jersey*. This name was given in compliment to sir George, whose family came from the isle of Jersey. It had previously been considered a part of *New-Netherlands*.

History. This territory, in 1664, was included in the patent of Charles II. to his brother, the duke of York and Albany, who soon after conveyed it to Berkeley and Carteret. In the same year, 3 inhabitants of Long island purchased a tract of land of the Indians; and, settling on it, called it Elizabethtown.

The next year the colony received its own governor, sir George Carteret, and became a distinct province.

In 1676 the province was divided into East and West-Jersey. East-Jersey was released, by the assignees of lord Berkeley, to Carteret; who, in return, conveyed to them West-Jersey. The government of the first was retained by Carteret, and that of the last was claimed by the duke of York. In 1680, the duke restored the government of West-Jersey to the proprietors. Two years after, Carteret transferred his right to East-Jersey, to William Penn and 11 associates, who conveyed one half of their interest to the earl of Perth and 11 others. Robert Barclay, author of the Apology, was chosen governor of East-Jersey the following year.

In 1688 the Jersies, with New-York, were annexed to New-England by royal authority, but the scheme miscarried.

In 1702 West-Jersey was resigned to, and in due form accepted

* The 7 counties above lie from S. to N. on Delaware river. Cape May and Gloucester extend across to the sea.

† These 4 next counties lie from N. to S. on the eastern side of the state.

by, queen Anne, who united it to East-Jersey, and made both one royal government. The united provinces were called New-Jersey. New-York and New-Jersey had from that time a common governor, till the year 1738. The constitution of the state was formed in 1776.

This state, for several years, was occupied by the American and British armies during the revolutionary war. In proportion to her population and wealth, the losses of this state in men and property, were greater than those of any of the other states. When gen. Washington was retreating through the Jersies, almost forsaken, her militia constituted, for a time, the principal strength of his army. At the battle of Trenton (Dec. 26, 1776) the British received a check, which turned the tide of the war in favor of the United States. The battle of Princeton, the January following, obliged the British to retire to winter quarters. The battle of Monmouth was fought in June, 1778. Many towns and places in this state were rendered signal by some battle or exploit during the war.

Religion. Presbyterians are the most numerous denomination. In 1810, the churches in this state belonging to the presbytery of New-York separated and were formed into the presbytery of Jersey. There is another called the presbytery of New-Brunswick; and some of the churches farther west form a part of the presbytery of Philadelphia. The following was the state of these churches in 1811.

Presbyteries.	Churches.	Clergy.	Licentiates.
Jersey	22	18	3
New-Brunswick	32	19	5
Philadelphia	10	5	
	64	42	8

The Dutch Reformed church is divided into 3 classes.

Classes.	Churches.	Clergy.
New-Brunswick	14	12
Bergen	11	5
Paramus	8	4
	33	21

The Episcopal church at that time comprised 24 churches and 10 clergymen.

The Baptist church is connected with the New-York and Philadelphia Baptist associations. The first then comprised 11 churches, 7 clergymen, and 1 licentiate; the last 19 churches, 11 clergymen, and 3 licentiates.

The Methodists make New-Jersey one of their districts, and divide it into 8 circuits. The district is committed to a presiding elder, and each circuit to an itinerant. These are appointed by the annual Philadelphia conference, and the itinerants are subject to an interchange once a year. The number of communicants in all the circuits, in 1811, was 6,789, of whom about 500 were people of color.

The Congregational churches are regulated by a convention. Their number is 9 and they have 5 clergymen.

New-Jersey, Pennsylvania, Delaware, and the eastern shore of Maryland, compose a district, which is under the direction of the yearly meeting of Friends at Philadelphia. Eleven quarterly meetings are held annually in this district; of which four are held in New-Jersey. Eighteen monthly meetings are held here, and the Friends have 44 meeting houses in the state.

Government. The legislature is composed of a legislative council and house of assembly. The council is chosen annually, and consists of 13 members; each county choosing one. A member must be a freeholder in the county, reside in it the year preceding his election, and possess property worth 1000*l.* The assembly consists of 35 members. They are chosen annually, must reside a year in the county previous to the election, be freeholders, and hold property worth 500*l.*

The executive is composed of a governor, chosen by a joint ballot of the legislature; a vice president, chosen by the council: and a privy council, consisting of any three members of the legislative council. The governor is president of the council, chancellor, surrogate general, and captain general.

The governor and legislative council are the high court of appeals, and have the sole power of pardoning. This court sits twice a year at Trenton.

The court of chancery is a court of law and equity, of which the governor is the sole judge. It is held 4 times a year at Trenton.

The supreme court consists of three judges, who continue in office 7 years, and sits 4 times a year at Trenton.

Circuit courts are held by a judge of the supreme court, twice a year in each county. Courts of oyer and terminer are held by a judge of the supreme court, and two or more judges of the common pleas, at the times of holding the circuit courts. Orphan's courts, or courts of probate, are composed of the judges of the common pleas in each county, and are held 4 times a year. Courts of common pleas are held at the same times with the orphan's courts, and consist of an indefinite number of judges, who hold their offices for 5 years. The whole number in the state, in 1810, was 168. Courts of quarter sessions are held the same week with those of common pleas, and are composed of the justices of the peace in each county. Justices courts are held by a single justice of the peace. These justices hold their offices 5 years, and have jurisdiction in cases not exceeding $100. An appeal, however, lies to the common pleas. The number of attornies at law in 1811, was 79.

The qualifications of a voter are property amounting to 50*l.* and a year's residence in the county previous to the election.

Population. The number of inhabitants in New-Jersey was in the year

1738	43,388 free inh. 3,981 slaves	47,369	1784	free inh. slaves	140,435
1745	56,797 free inh. 4,606 slaves	61,403	1790	169,924 whites 11,423 slaves 2,792 free bl.	184,139

1800	194,325 whites 12,422 slaves 4,402 free bl.	211,149	1810	226,868 whites 10,851 slaves 7,843 free bl.	245,562

The items of the census of 1810 were as follows:

	males.	females.	total.
Under 16 years of age	56,728	53,849	110,577
Between 16 and 45	42,625	42,553	85,178
45 and upwards	16,004	15,109	31,113
Total	115,357	111,511	226,868

New-Jersey was, by the census of 1790, in point of population, the ninth state; by that of 1800 the tenth, and by that of 1810 the twelfth state in the union.

Militia. The militia of New-Jersey according to the returns of 1810 consisted of

	men.
41 regiments of infantry	31,274
5 regiments of cavalry	1,652
1 regiment of artillery	784
47	33,710

These were commanded by 20 staff officers, 159 field officers, and 560 captains.

Manners and Customs. Many circumstances concur to render these various in different parts of the state. The inhabitants are a collection of Low Dutch, Germans, English, Scotch, Irish, and New-Englanders, or their descendants. National attachment and mutual convenience have generally induced these several kinds of people to settle together in a body, and in this way their peculiar national manners, customs, and character are still preserved, especially among the poorer class of people, who have little intercourse with any but those of their own nation. Religion, although its tendency is to unite people in those things that are essential to happiness, occasions wide differences as to manners, customs, and even character. The Presbyterian, the Quaker, the Episcopalian, the Baptist, the German and Low Dutch Calvinist, the Methodist, and the Moravian, have each their distinguishing characteristics, either in their worship, their discipline, or their dress. There is still another characteristical difference, distinct from either of the others, which arises from the intercourse of the inhabitants with different states. The people in West-Jersey trade to Philadelphia, and of course imitate their fashions, and imbibe their manners. The inhabitants of East-Jersey trade to New-York, and regulate their fashions and manners according to those in New-York. So that the difference, in regard to fashion and manners between East and West Jersey, is nearly as great as between New-York and Philadelphia. Add to all these the differences common in all countries, arising from the various occupations of men, such as the civilian, the divine, the lawyer, the physician, the mechanic, the clownish, the decent, and the respectable farmer, all of whom have different pursuits, or pursue the same thing differently, and of

course must have different ideas and manners;—when we take into view all these differences, (and all these differences exist in New-Jersey, and many of them in all the other states) it cannot be expected that many general observations will apply. It may, however, in truth be said, that the people of New-Jersey are generally industrious, frugal, and hospitable. There are, comparatively, but few men of learning in the state, nor can it be said that the people in general have a taste for the sciences. The poorer class, in which may be included a considerable proportion of the inhabitants of the whole state, are inattentive to the education of their children, who are too generally left to grow up in ignorance. There are, however, a number of gentlemen of the first rank in abilities and learning in the civil offices of the state, and in the several learned professions.

It is not the business of a geographer to compliment the ladies; nor would we be thought to do it when we say, that there is at least as great a number of industrious, discreet, amiable, genteel, and handsome women in New-Jersey, in proportion to the number of inhabitants, as in any of the United States.

Literature. There is a college in New-Jersey, at Princeton, called Nassau Hall, founded by charter from John Hamilton, Esq. president of the council, about the year 1738, and enlarged by governor Belcher, in 1747. The charter delegates a power of granting to "the students of said college, or to any others thought worthy of them, all such degrees as are granted in either of our universities, or any other college in Great Britain." It has 24 trustees. The governor of the state and the president of the college are, *ex officio*, two of them.

The establishment consists of a president, three professors, two tutors, and a grammar master. The president is also professor of moral philosophy, history, and eloquence. There is a professor of mathematics and natural philosophy, including astronomy and chemistry, which is treated, not only in its relation to medicine, but to agriculture and manufactures, and there is also established a professorship of divinity. To the tutors is committed the instruction of the two lowest classes in the college. The grammar master teaches writing, arithmetic, and the elements of the Latin and Greek languages.

When young gentlemen have read the Greek testament and those Latin writers, which are commonly read in schools before Virgil, and are well versed in Mair's introduction to the making of Latin, they are permitted to enter the lowest class in the college. The tutors then direct their studies in the classics, in arithmetic, and geography, during two years. Two years more are spent in the higher sciences under the professors, and the president; who give lectures on the different subjects mentioned above; at the same time presenting to the students a compend or syllabus of their lectures, which they are required to commit to memory, and on which they are to be examined daily by the professor, and more particularly four times in the year before the whole faculty, and such other gentlemen as may please to attend. The senior class

also, in order to their receiving the first degree in the arts, is required to undergo two examinations in the presence of the faculty, and the trustees of the college; one in the month of April, and the other in the month of August. All the examinations in this college, except the daily ones by the professors, are held in public. Lectures on select subjects, of the evidences of revealed religion, of Jewish and Christian antiquities, and of sacred criticism, are given on the sabbath evenings in the college hall, before all the students. Lectures on the system of divinity are given to a theological class, consisting of bachelors of arts, on Thursday evenings. On Tuesday evening the members of the same class, in presence of the president, and such others as may choose to attend, produce in succession, essays on some head of theology, or sermons on some text of scripture, which are subjected to the free remarks and criticisms of all who are present.

On Friday evenings, during the winter session the graduates, who reside in the college, and in the town, meet for the purpose of improving themselves in style and composition, and for the discussion of questions literary, moral, and political. The greater part of the students are also divided into two societies for similar purposes, which meet, the one on Monday, the other on Wednesday evenings. Between these societies an ardent emulation exists, which is very friendly to the improvement of the students, and the good government of the institution. The members of the two societies, in all public exhibitions, appear with different badges to distinguish them, which is another mean of promoting their emulation. It is a point of honor with them to admit none into their respective bodies, who maintain a remarkably bad standing in their class. If any member of either of the societies is subjected to any stigma or censure by the faculty of the college, for immorality or bad scholarship, he infallibly meets with a correspondent censure in his society; or, if the fault be considerable, is expelled from it.

The college being founded on private liberality and zeal, and not being yet taken under the patronage of the state, its reputation, and even its existence, depends on the improvement of the students and the exactness of its moral discipline, which the associations before mentioned contribute greatly to promote.

There are in the winter session generally from 70 to 80 students in the four classes of the college, exclusive of the grammar school. In the summer session there are from 80 to 90. A considerable number of bachelors of arts, who are students of theology or law, constantly reside in the college, or the town, and are partakers in those exercises that have been already mentioned.

The annual income of the college at present, by fees of the students and otherwise, is about 1000*l*. It has also funds in possession, through the pious liberality of Mr. James Leslie of New-York and Mrs. Esther Richards of Rahway, to the amount of $10,000 for the education of poor and pious youth for the ministry of the gospel; and an estate in Philadelphia for the same purpose, of between 2 and 300*l*. per annum, a legacy of the late Mr. Hugh Hodge, a man of eminent piety.

The college library was almost wholly destroyed during the late war, and again in March, 1802, by a fire, supposed kindled by an incendiary; but out of the remains and by liberal donations it has collected one of about 2 or 3000 volumes. There are besides in the college two libraries belonging to the two literary societies into which the students have arranged themselves, and the library of the president, consisting of 1000 volumes more, is always open to the students.

Before the war, this college was furnished with a philosophical apparatus worth 500*l.* which (except the elegant orrery constructed by Mr. Rittenhouse) was almost entirely destroyed by the British army in the late war.

The college edifice is of stone, 180 feet in length, 54 in breadth, and four stories high, divided into forty-two convenient chambers for the accomodation of the students, besides a dining hall, chapel, and room for the library. Its situation is elevated and very pleasant and healthful. It is remarkable, that since the removal of the college to Princeton in 1756, there have been but 5 or 6 deaths among the students. The view from the college balcony is extensive and charming.

The college has been under the care of a succession of presidents, eminent for piety and learning; and has furnished a number of civilians, divines, and physicians of the first rank in America.*

Queen's college, in New-Brunswick, was founded by ministers of the Dutch church, for the education of their clergy, and incorporated in 1770. For a long period its prospects were gloomy, and its success discouraging. Within a year or two, under its venerable head, it has become a flourishing seminary. Its legislature is a board of trustees consisting of 29 members, of whom the president, governor, and chief justice, are always three. The instructers are a president, who is professor of theology; a vice president, who is professor of moral philosophy and belles lettres; a professor of mathematics, natural philosophy and astronomy: 1 tutor; and a principal of the grammar school, connected with the college.

There are 15 incorporated academies in New-Jersey; 2 at Elizabethtown, 2 at Morristown, 1 at Newark for young ladies, and young gentlemen, and at Jersey, Hackensac, Bloomfield, Camptown, Springfield, Perth Amboy, Mendham, Trenton, Bordenton, Salem, and Burlington, one in each town.

Cities and Towns. NEWARK is pleasantly situated at a small distance W. of the Passaic, near its mouth in Newark bay, and 9

* Accessus.	Presidents.	Exitus.
1746	Rev. Jonathan Dickenson,	1747
1748	Rev. Aaron Burr,	1757
1758	Rev. Jonathan Edwards,	1758
1758	Rev. Samuel Davies,	1760
1761	Rev. Samuel Finley, D. D.	1766
1767	Rev. John Witherspoon, D. D.	1794
1795, October 30,	Rev. Samuel Stanhope Smith, D. D.	

miles W. of the city of New-York. It is a flourishing, well built town, and contains a handsome court house, a gaol, 3 Presbyterian churches, 1 Episcopalian, and 1 Baptist. The town is celebrated for the excellence of its cider, and is the seat of extensive manufactures of shoes and leather. It contained in 1810, 8008 inhabitants.

TRENTON, the seat of government, stands on the E. bank of the Delaware, opposite the falls, and 28 miles by land, and 34 by water from Philadelphia, lat. 40 15 N. The public buildings are a state house, court house, gaol, academy, 2 Presbyterian churches, 1 Episcopalian, 1 Baptist, and 1 Friends. Trenton is a thoroughfare between New-York and Philadelphia. A number of elegant country seats are erected on the Delaware, in the neighbourhood of the town, and an elegant bridge across this river, connects this town with Morrisville on the Pennsylvania bank. The population of the town in 1790, was 1946 ; and in 1810, 3002.

PERTH AMBOY (city) took its name from James Drummond, earl of Perth ; and Ambo, the Indian name for point, and stands on a neck of land included between Raritan river and Arthur Kull sound. Its situation is high and healthy. It lies open to Sandy Hook, and has one of the best harbors on the continent, Vessels from sea may enter it in one tide, in almost any weather. Great efforts have been made, and legislative encouragements offered, to render it a place of trade, but without success. This town was early incorporated with city privileges, and continued to send two members to the general assembly until the revolution. Until this event, it was the capital of East-Jersey ; and the legislature and supreme court used to sit here and at Burlington alternately. It had in 1810, 815 inhabitants.

BURLINGTON is built chiefly on an island in the Delaware, 1 mile long, $\frac{3}{4}$ of a mile broad, and 18 N. E. from Philadelphia. The public buildings are 4 meeting houses, for Friends, Episcopalians, Methodists and Baptists, one for each, an academy, city hall, and gaol. The chief streets are spacious and ornamented with trees. The Delaware, opposite the town, is about a mile wide ; and under shelter of Mittinnicunk and Burlington islands, affords a safe and convenient harbor. It is commodiously situated for trade, but is too near the opulent city of Philadelphia to admit of any considerable increase of foreign commerce. Here is a nail manufactory, and distillery.

The city was a free port under the state. The island of Burlington was laid out, and the first settlements made as early as 1677. In 1682, the island of Mittinnicunk, or Free School island, was given for the use of the city of Burlington ; the yearly profits arising from it (which amount to one hundred and eighty pounds) are appropriated for the education of poor children.

In 1803, it contained, 282 houses, and 2256 inhabitants ; and in 1810, 2419 inhabitants.

NEW-BRUNSWICK is built on the S. W. bank of the Raritan, 14 miles from its mouth, and 53 N. E. from Philadelphia. The great road from New-York to Philadelphia passes through this town. The public buildings are the college edifice, 1 Episcopalian

church, 1 Dutch Reformed, and 1 Presbyterian. The ice, at the breaking up of the river in winter, frequently lodges on the shallow fording place, just opposite the town, and forms a temporary dam, which occasions the water to rise many feet above its usual height, and sometimes to overflow the lower floors of those houses which are not guarded against this inconvenience, by having their foundations elevated. The streets are raised and paved with stone. The water in the springs and wells is generally bad. The inhabitants are building on the hill above the town, which is very pleasant, and commands a pretty prospect. The citizens have a considerable inland trade, and several small vessels belonging to the port. The population in 1810, was 6312. Half of the inhabitants are of Dutch origin.

PRINCETON is a pleasant village of about 80 houses, 52 miles from New-York, and 42 from Philadelphia. Its public buildings are a large college edifice of stone, already described, and a Presbyterian church built of brick. Its situation is remarkably healthy.

ELIZABETHTOWN (borough) is 15 miles from New-York Its situation is pleasant, and its soil equal in fertility to any in the state In the compact part of the town, there are about 150 houses. The public buildings are a very handsome Presbyterian brick church, an Episcopal church also of brick, and an academy. This is one of the oldest towns in the state. It was purchased of the Indians as early as 1664, and was settled soon after. In 1810, it had 2977 inhabitants.

Swedesborough stands on Racoon creek, has a number of good houses, and a large elegant house for public worship. It was so named by the Swedes, who are numerous in this part of the state, though they have now mingled with German, Irish, Scotch, and English people.

Salem is an ancient town. Here is the largest Quaker meeting house in the state; an Episcopal church, a Baptist and Methodist meeting house, a court house, and gaol. The dwelling houses are about a hundred, mostly of brick, some of them elegant, and 929 inhabitants. The town stands on a creek $3\frac{1}{2}$ miles from Delaware bay.

Practice of Physic. There is a medical society in this state, divided into Eastern and Western districts, consisting of about 30 of their most respectable physicians, who meet twice a year. No person is admitted to the practice of physic, without a license from the supreme court, founded on a certificate from this society, or at least two of its members, testifying his skill and abilities. It is remarkable, that in the county of Cape May, no regular physician has ever found support. Medicine has been administered by women, except in some extraordinary cases.

Practice of Law. No person is permitted to practise as an attorney in any court without a license from the governor. This cannot be obtained, unless the candidate shall be above 21 years of age, and shall have served a regular clerkship with some licensed attorney for 4 years, and have taken a degree in some public college, otherwise he must serve five years. This regulation is con-

sidered by some a depreciation of rights in regard to citizens of other states, and a bar to the progress of knowledge. He must also submit to an examination by three of the most eminent counsellors in the state, in the presence of the judges of the supreme court. After three years practice as an attorney, he becomes a candidate for a counsellor's license, which is granted on a like examination. In 1810, there were 95 attornies and counsellors at law in this state.

Roads. A turnpike road, 43 miles long, has lately been completed from Trenton through New-Brunswick, to Elizabethtown. The greatest angle of ascent is 3 degrees. It is nearly in a straight line; and is 36 feet wide, 15 of which are covered with 6 inches of gravel. The expense was $2500 for every mile. Another has been begun from New-Brunswick to Easton, at the mouth of the Lehigh, 43 miles, 11 of which are finished at an expense of $40,000.

Bridges. A neat wooden bridge, 1000 feet in length, over the Hackinsac, and another over the Passaic river, 500 feet long, connected by a very long causeway, have been erected at a great expense. The post road from New-York to Philadelphia passes over these bridges; but the route is more circuitous, and the roads more disagreeable than the former way over the old ferries, where, in the opinion of many, the bridges should have been built.

Another bridge over Raritan river, opposite the city of Brunswick, about 1000 feet in length, and wide enough for two carriages to pass abreast, besides a foot way, was completed at a great expense in the fall of 1795. The wood work of the bridge rests on 11 neat stone pillars, besides the abutments. This is a very neat and expensive bridge.

A very handsome, sightly bridge over the Delaware below the falls at Trenton, was opened October, 1806, which is a great convenience in passing between Philadelphia and New-York. It is 570 feet long, from abutment to abutment. The superstructure consists of three spacious arches, resting on the abutments, and 3 stone piers, 34 by 40 feet.

Manufactures. In Trenton, Newark, and Elizabethtown, are a considerable number of very valuable tanneries, where excellent leather in large quantities is made, and a part of it exported to the neighboring markets. Newark is the seat of a considerable shoe manufactory. In 1796, the leather made in 9 large tanneries in this place, was chiefly manufactured into shoes, by about 200 workmen, who at that period made annually about 100,000 pair of shoes. Steel was manufactured at Trenton in the time of the war, but not considerably since. In Gloucester county is a glass house. Paper mills and nail manufactories are erected and worked to good advantage in several parts of the state. Wheat also is manufactured into flour, and Indian corn into meal, to good account, in the western counties, where wheat is the staple commodity. But the iron manufacture is, of all others, the greatest source of wealth to the state. Iron works are erected in Gloucester, Burlington, Sussex, Morris, and other counties. The mountains in the county of Morris give

rise to a number of streams necessary and convenient for these works, and at the same time furnish a copious supply of wood and ore of a superior quality. In this county alone are no less than seven rich iron mines, from which might be taken ore sufficient to supply the United States; and to work it into iron are two furnaces, two rolling and slitting mills, and about 30 forges, containing from two to four fires each. These works produce annually about 540 tons of bar iron, 800 tons of pigs, besides large quantities of hollow ware, sheet iron, and nail rods. In the whole state, it is supposed there is yearly made about 1200 tons of bar iron, 1200 do. of pigs, 80 do. of nail rods, exclusive of hollow ware, and various other castings, of which vast quantities are made.

A manufacturing company was incorporated in 1791, by the legislature of this state, and favoured with very great privileges. The better to encourage every kind of manufacture, a subscription was opened, under the patronage of the secretary of the treasury of the United States. A sum of upwards of $500,000 was almost immediately subscribed, and the directors of the association took the proper measures to carry into effect their extensive plan. They fixed on the Great Falls, in Passaic river, and the ground adjoining, for the erection of the mills and the town, which they called PATTERSON. Every advantage appeared to be concentrated in this delightful situation, to make it one of the most eligible in the United states, for the permanent establishment of manufactures. A large sum of money has been expended, but the expectations of the proprietors have not been realized.

Commerce. The amount of exports from the ports of this state, in 1810, was $430,267; but a much greater amount is annually exported from the state through New-York and Philadelphia. These two cities import almost all the foreign merchandize consumed in the state. The articles exported are flour, wheat, horses, cattle, hams, cider, lumber, flaxseed, leather, and iron. The New-York and Philadelphia markets are constantly supplied with large quantities of provisions and fruits from New-Jersey. The aggregate tonnage of the state of New-Jersey for the year 1805, was 22,958 tons.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. BAYS. MOUNTAINS. BOTANY. MINERALOGY. MINERAL WATERS. CURIOSITIES.

Face of the Country. THE three northern counties are mountainous. The next four are agreeably diversified with hills and vallies. But at Sandy Hook commences that long range of flat land, which lines the coast of the middle and southern states. The greater part of the 6 southern counties are of this description. The land here, throughout, has the appearance of *made ground*.

At the depth of 10, 20, or 30 feet, wood, roots, and reeds are very often found; and at the depth of 50, salt marsh is discovered, every where within 30 miles of the coast. Shells of oysters and clams are met with also at every depth. Some years since, by a sudden irruption of the sea, at Long Branch, in Monmouth county, the shore was violently torn away for a considerable distance, and the skeleton of a huge carnivorous animal was discovered. Since that time the bones of a similar animal have been discovered in the county of Gloucester.

Soil and Agriculture. The mountainous parts of the state have generally a strong soil, and are a fine grazing country. The farmers there raise great numbers of cattle for the markets of New-York and Philadelphia. They also raise wheat, rye, maize, buckwheat, potatoes, oats, and barley, enough for their own consumption. They keep large dairies, and make great quantities of butter and cheese. In the counties that are uneven and hilly, the soil is likewise generally rich, and very productive of the various kinds of grain, particularly wheat and maize. Near New-York and Philadelphia, great attention has been paid to the cultivation of fruit and vegetables: and the finest apples, pears, peaches, plums, cherries, strawberries, raspberries, and melons, are constantly carried to these markets. Fine orchards abound in all the northern half of the state; and the cider of New-Jersey, particularly that of Newark, is of proverbial excellence. Maple sugar is made in considerable quantities in the county of Sussex. A narrow tract of country on the Delaware, in Burlington and Gloucester counties, is rich and fertile; as are various similar tracts, in the southern half of the state, on the small rivers and creeks. In Salem, Cumberland, and Cape May, there are also very extensive tracts of salt meadow on the river and bay. In Gloucester and Burlington, similar tracts have been recovered by sluices and mounds from the inroads of the sea, and are now rendered rich fresh meadows. With these exceptions the greater part, at least four fifths, of the 6 southern counties, or two fifths of the whole state, are barren. They produce little else but shrub oaks and yellow pines. They yield, however, an immense quantity of bog iron ore, which is worked up in these counties. The inhabitants raise a little maize, rye, and potatoes; but subsist chiefly by feeding cattle on the salt meadows, and by fishing on the shores and in the creeks and rivers.

Rivers. The Delaware and Hudson are on the frontiers. The Wallkill rises in the county of Sussex.

Raritan river is formed by two considerable streams, called the north and south branches; one of which has its source in Morris, the other in Hunterdon county. It passess by Brunswick and Amboy, and mingles with the waters of the Arthur Kull sound, and helps to form the fine harbor of Amboy. It is a mile wide at its mouth, 250 yards at Brunswick, and is navigable about 16 miles. It is supposed that this river is capable of a very steady lock navigation, as high as the junction of the north and south branches; and thence up the south branch to Grandin's bridge in Kingwood.

Thence to Delaware river is 10 or 12 miles. It is supposed a portage will be here established by a turnpike road; or the waters of the Raritan may be united with those of the Delaware, by a canal from the south branch of the Raritan to Musconecunk river, which empties into the Delaware; or from Capoolong creek, a water of the Raritan, emptying at Grandin's bridge, and Necessacaway, a water of the Delaware. It is supposed also that an inland navigation from Philadelphia to New-York may be effected by proceeding up the Asanpink, (a water of the Delaware, emptying at Trenton) towards Princeton; and from thence by a canal to the Millstone, a water of the river to New-Brunswick.

At Raritan hills, through which this river passes, is a small cascade, where the water falls 15 or 20 feet, very romantically between two rocks. This river, opposite to Brunswick, is so shallow that it is fordable at low water with horses and carriages, but a little below it deepens so fast that a 20 gun ship may ride securely at any time of tide. The tide, however, rises so high that large shallops pass a mile above the ford; so that it is no uncommon thing to see vessels of considerable burden riding at anchor, and a number of large river craft lying above, some dry, and others on their beam ends for want of water, within gun shot of each other.

The Passaic is a very crooked river. It rises in a pond in the county of Orange, (New-York) and runs about 20 miles before it enters New-Jersey. Pursuing a southerly course, it receives the Pegunnoc and the Rockaway, from the west, and falls into Newark bay, after a course of about 65 miles. It is navigable 10 miles, and is 230 yards wide at the ferry. The fall in this river at Patterson is one of the most interesting cataracts in the union. The river, above the fall, is about 50 yards wide; and moves with a slow and gentle current, till within a short distance of a deep cleft in a rock, which crosses the bed of the river. Down this cleft it is precipitated, in one entire sheet, upwards of 70 feet. The whole scenery is uncommonly wild and picturesque.

Hackensac river rises in the county of Rockland, in New-York, and running in a direction parallel with the Hudson for 40 miles, falls into Newark bay, a little distance east of the Passaic. It is navigable 15 miles.

Great Egg Harbor river rises in Gloucester, and runs southeast 45 miles, to the Atlantic, emptying into Great Egg Harbor bay. It is navigable 20 miles for boats of 200 tons.

Mauriee river runs south by east 30 miles, and empties into Delaware bay. It is navigable for sloops of 100 tons, 20 miles; and, for small craft, nearly to its source. Most of the little creeks on the coast are navigable for boats the greater part of their course.

The Musconecunk runs southwest about 40 miles, and falls into the Delaware, a little below Easton. The other branches of the Delaware are Flatkill, Paulinskill, the Pequest, and Rancocus.

Bays. Delaware bay is the southwestern boundary of this state; and New-York bay lies east of Bergen neck. Newark bay lies west of Bergen neck, and is about 5 miles deep, and 2 wide.

Amboy bay, between Staten island and Middleton, is about 15 miles deep; and, and in the widest part, 12 broad. It is of a triangular shape, and opens between Sandy Hook (on which stands a light house 100 feet high) and Long island, into the Atlantic. At the head of the bay, Arthur Kull sound connects it with Newark bay and New-York bay; and, at the northeastern angle, it opens through the narrows and New-York bay, into the Hudson and Long Island sound. A long narrow bay stretches along the coast from Muletegung river to cape May. It is 80 miles long, and rarely more than 3 wide. Its eastern limit is a string of sand islands, separated by a number of inlets. Various names are given to the different parts of the bay. Arthur Kull sound is the narrow strip of water between Staten island and the Jersey main. The northeastern end opens into New-York bay, between Bergen neck and that island; and the southwestern into Amboy bay, between the same island and Amboy. It is about 22 miles long, and rarely 1 mile wide.

Mountains. The South mountain, which is one ridge of the great Allegany range, crosses this state in about latitude 41°. This mountain embosoms such amazing quantities of iron ore, that it may not improperly be called the *Iron mountain.* The Kittatinny ridge passes through this state, north of the South mountain. Several spurs from these mountains are projected in a southern direction. One passes between Springfield and Chatham. Another runs west of it, by Morristown, Baskinridge, and Vealtown. The noted highlands of Navesink and Center hill, are almost the only hills within the distance of many miles from the sea coast. The highlands of Navesink are on the sea coast near Sandy Hook, in the township of Middletown, and are the first lands that are discovered by mariners, as they come upon the coast. They rise about 600 feet above the surface of the water.

Botany. The natural growth, in the northern half of the state, consists of the various kinds of oak, walnut, and maple, of the chesnut, and birch. In some of the southern counties, almost the only trees are the shrub oak and yellow pine.

Mineralogy. Great quantities of bog *iron* ore are found in the southern counties, and of mountain ore in the South mountain. There is a rich copper mine in Bergen county near Newark bay, between the Hackinsac and Passaic. It was discovered in 1719. The ore yields 75 per cent of pure copper. Each hundred weight also yields from 4 to 7 ounces of *silver*, and a small quantity of *gold.* There is another mine at New-Brunswick, and others at Rocky hill, Boundbrook, Pluckemin, and Woodbridge. Two lumps of pure copper were found at Boundbrook in 1754, which weighed 19cwt. A *lead* mine has been discovered at Hopewell, 4 miles from Trenton. *Coal* is found on the Raritan, below New-Brunswick, and at Pluckemin. A quarry of *plaster of Paris* has been discovered in the county of Sussex. There is a *slate* quarry in Hunterdon county, 75 miles above Philadelphia, within 300 yards of Delaware. In Newark and Acquackinunk, there are immense quarries of free stone, of an excellent quality for building. The

whole number of quarries of this kind, in the county, is 19; and the value of the stone, annually sold, is estimated at $36,000.

Mineral Waters. In the upper part of the county of Morris, is a cold mineral spring, which is frequented by valetudinarians, and its waters have been used with very considerable success. In the county of Hunterdon, near the top of Musconetcong mountain, is a noted medicinal spring, to which invalids resort from every quarter. It issues from the side of a mountain, and is conveyed into an artificial reservoir for the accommodation of those who wish to bathe in, as well as to drink, the waters. It is a strong chalybeate and very cold. These waters have been used with very considerable success; but perhaps the exercise necessary to get to them, and the purity of the air in this lofty situation, aided by a lively imagination, have as great efficacy in curing the patient as the waters.

A curious spring has been discovered, about 200 yards from the south branch of Raritan river, from which, even in the driest seasons, a small stream issues, except when the wind continues to blow from the north-west for more than two days successively, when it ceases to run; and if the water be taken out of the cask placed in the ground, it will remain empty, until the wind changes, when it is again filled and flows as usual.

Curiosities. In the township of Shrewsbury, in Monmouth county, on the side of a branch of Navesink river, is a remarkable cave, in which there are three rooms. The cave is about 30 feet long, and 15 feet broad. Each of the rooms is arched; the centre of the arch is about five feet from the bottom of the cave; the sides not more than two and a half. The mouth of the cave is small; the bottom is a loose sand; and the arch is formed in a soft rock, through the pores of which, the moisture is slowly exudated, and falls in drops on the sand below.

In the township of Hanover, in Morris county, on a ridge of hills, are a number of wells, which regularly ebb and flow about six feet, twice in every 24 hours. These wells are nearly 40 miles from the sea, in a straight line. In the county of Cape May, is a spring of fresh water, which boils up from the bottom of a salt water creek, which runs nearly dry at low tide; but at flood tide, is covered with water directly from the ocean, to the depth of three or four feet; yet in this situation, by letting down a bottle well corked, through the salt water into the spring, and immediately drawing the cork with a string prepared for that purpose, it may be drawn up full of fine, untainted, fresh water. There are springs of this kind in other parts of the state.

On Sandy Hook, about a mile from the light-house, is a monument, which was erected to the memory of the Hon. Hamilton D. Halliburton and 12 others, who were drowned on this coast, Dec. 31, 1783.

DELAWARE.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. LITERATURE. TOWNS. BRIDGE. CANAL. MANUFACTURES. COMMERCE.

Extent. DELAWARE is 96 miles long from N. to S. Its greatest breadth is 36 miles, and its least 10. The area is about 2120 square miles. It lies between lat. 38 29 30, and 39 54 N. and between lon. 74 56, and 75 40 W.

Boundaries. Bounded N. by Pennsylvania; E. by Delaware river and bay, and the Atlantic; S. and W. by Maryland.

Divisions. This state is divided into 3 counties and 25 townships.

Counties.	No. of towns.	Population. 1790	1800	1810	Chief towns.
Newcastle	9	19,686	25,361	24,429	Newcastle
Kent	5	18,920	19,554	20,495	Dover
Sussex	11	20,488	19,358	27,750	Georgetown
	25	59,094	64,273	72,674	

It is entitled to 2 representatives to Congress.

Names. This country, when ceded by the duke of York and Albany to William Penn, was called *The Territories of Pennsylvania.* When it obtained its own assembly (in 1703) it was called *The Three Lower Counties on Delaware;* a name, which it retained, till the formation of a constitution, in Sept. 1776, when it took that of *Delaware.* This name was derived directly from the bay, but, originally, from lord De la War, who completed the settlement of Virginia, and died in the bay, in 1618, on his way to Virginia.

History. A colony of Swedes and Finns settled at cape Henlopen, which they called Paradise point, in 1627. In 1630 they built a fort at Lewistown, called Hoarkill; and, a year after, they built another near Wilmington, called fort Christee, and laid out a small town. Soon after the Dutch, at New-York, contested their right to the west bank of the Delaware. The Dutch put up a fort at Newcastle, in 1651, which the Swedes took from them the next year.

In 1655 the Dutch reduced the Swedish colony, sent the principal inhabitants prisoners to Holland, and received the rest under their protection, making the country a part of their colony of New-Netherlands.

When the English took possession of that colony, in 1664, for the duke of York; his governors claimed jurisdiction over the west bank of the Delaware, and continued to exercise it till 1682. In that year, the duke gave William Penn a deed of Newcastle, and

of a district 12 miles round it; and another of a tract from 12 miles S. of Newcastle to Hoarkill.

In 1703 a partial disunion took place between the *Three Lower Counties*, and the colony of Pennsylvania; and, by agreement, they were placed under the government of their own legislature.

The boundary line, between the counties and Maryland, was settled, after a long dispute between the proprietors, in 1760.

In 1765 deputies were sent from the Lower Counties to the first congress at New-York.

In April, 1775, Richard Penn, proprietor of Pennsylvania, resigned his jurisdiction, over the counties, whereby they became a distinct colony; and, in the September of the following year, a convention of representatives chosen for the purpose, formed a constitution; and the territory, taking the name of Delaware, became a free and independent state. During the revolutionary war Delaware suffered severely; her citizens were distinguished for their exertions and her troops for their valor.

A new constitution was formed for the state in June, 1792.

Religion. In this state there is a variety of religious denominations. Of the Presbyterian sect, there are 24 churches; of the Episcopal, 14; of the Friends, 8; of the Baptist, 7; of the Methodist, a considerable number, especially in the two lower counties of Kent and Sussex: the number of their churches is not exactly ascertained. Besides these there is a Swedish church at Wilmington, which is one of the oldest churches in the United States. This church stands half a mile below Wilmington, on Christiana creek. Near this place, during the 17th century, dwelt the principal part of the Swedes. The creek was named after Christina, then queen of Sweden, daughter of the celebrated Gustavus Adolphus. Many descendants of Swedes now live in this vicinity, but have nearly lost their native language. With these have associated a number of English, German, Scotch and Irish people, who together form one independent congregation, under the pastoral care of an Episcopal clergyman. This is the only Episcopal church in Wilmington.

The Swedes in Delaware, with those of Jersey and Pennsylvania, were one ecclesiastic body during the Swedish mission. From mere generosity the Swedes furnished these churches with clergymen and valuable presents in religious books for a century. The missionaries were recalled, merely because the people, by mixing with others, had so far lost their mother tongue as to render the mission nearly useless. The Swedish Lutherans nearly agree in doctrines and rites with the church of England. Episcopal ordination is observed as a matter of expediency, not of divine institution. These churches now vacant have not fixed new charters, but it is supposed they will choose Lutheran and Episcopalian pastors. For near a century the three congregations have had houses and glebes for their ministers, obtained partly by donation, but principally by purchase. The Swedish church in Philadelphia has a good estate; it has also two chapels in the country, one 6, the other 18 miles distant. The mission here is not vacated; not only

the native Swedes, but the Danes, and Norwegians, who come here, find great advantage from it.

Government. The legislature consists of a senate and house of representatives. The representatives are chosen annually, and by counties. Each member must be 24 years of age, have a freehold in the county, and have been a citizen and inhabitant of the state, the three years, and of the county, one year, preceding the election. The senators are chosen triennially, and by counties; they must be 27 years of age, have a freehold in the county of 200 acres, or an estate of 1000*l.* and have resided the same period as the members of the other house. One third of the senators go out annually. The assembly meet in January.

The governor is chosen by the freemen triennially and can hold the office only 3, out of any term of 6, years. He must be 30 years old, and have been a citizen of the United States 12 years, and of Delaware the 6 preceding his election. He appoints to all offices, the appointment of which is not provided for by the constitution. The speaker of the senate in case of the absence, death, or resignation of the governor, acts in his room.

All persons who have resided in the state two years next before the election and have paid taxes; and the sons of such persons; are voters.

The courts are a court of chancery, a supreme court, courts of oyer and terminer and general gaol delivery, a court of common pleas, orphans' courts, registers' courts, courts of quarter sessions in each county, and justices' courts. There may be 3 or 4 judges of the supreme court and of the court of common pleas; one of whom must reside in each county. They and the chancellor hold their offices during good behaviour; and together form the highest court, called the high court of appeals, of which the chancellor is president.

Population. The number of inhabitants was in

1790	46,308 whites 8,887 slaves 3,899 free bl.	59,094	1810	55,361 whites 4,177 slaves 13,136 free bl.	72,674
1800	49,852 whites 6,143 slaves 8,278 free bl.	64,273			

The items of the census of 1810 were as follow:

	males.	females.	total.
Under 16 years of age	14,112	13,411	27,523
Between 16 and 45	11,016	11,068	22,084
45 and upwards	2,878	2,876	5,754
Total	28,006	27,355	55,361

Delaware had a smaller population than either of the other states, at each of the national enumerations.

Militia. The militia of this state constitute one division, containing three brigades, one in each county. Each brigade comprises three regiments. The whole number of the militia, in 1810, including officers, was 8346.

Literature. There is no college in this state. There is an academy at Wilmington, and another at Newark, incorporated in 1769. The legislature, during their session in January, 1796, passed an act to create a fund for the establishment of schools throughout the state.

Towns. WILMINGTON is a pleasant town, 27 miles southwest of Philadelphia, containing 700 houses, mostly brick, and about 4200 inhabitants. It is situated two miles west of the river Delaware, between Christiana and Brandywine creeks, which, at this place, are about one mile from each other; but uniting below the town, they join the Delaware in one stream 400 yards at the mouth. The site of the principal part of the town is the southwest side of a hill, which rises 109 feet above the tide. On the northeast side of the same hill, there are 13 mills for grain, and a considerable number of handsome dwelling houses, which form a beautiful appendage to the town. The Christiana admits vessels of 14 feet draught of water to the town, and those of six feet draught eight miles further, where the navigation ends; and the Brandywine admits those of seven feet draught to the mills. About the year 1735, the first houses were built at this place; and the town was incorporated a few years afterwards. Its officers are two burgesses, six assistants, and two constables, all of whom are chosen annually. There are 6 places of public worship, viz. two for Presbyterians, one for Friends, one for Episcopalians, one for Methodists, and one for Baptists. There is also a public edifice, built of stone, 120 feet in front, and 40 feet in depth, three stories high, for the reception of the paupers in Newcastle county. The only bank in the state, is in this town. There is also another stone building, used as an academy, where the classics are taught. There are about 400 children in the different schools of the town. A market is held twice a week, and is well supplied with provisions. Lat. 39 43 18.

The heights near Wilmington afford a number of agreeable prospects; from some of which may be seen the town, the adjacent meadows, and four adjoining states. No regular account of the births and burials has been kept, but the place is healthy. The number of children under sixteen, is probably equal to that of any town which is not more populous: and, according to an accurate account taken in the year 1794, there were upwards of 160 persons above 60 years old. The celebrated battle of Brandywine was fought near this town.

DOVER, in the county of Kent, is the seat of government. It stands a few miles from Delaware river, and consists of about 100 houses, principally of brick. Four streets intersect each other at right angles, whose incidences form a spacious parade, on the east side of which is an elegant state-house of brick. Wheat is the principal article of export. The landing is five or six miles from the town of Dover.

NEWCASTLE is 33 miles below Philadelphia, and agreeably situated on the west bank of Delaware river. It was first settled by Swedes, about the year 1627, and called Stockholm. It was afterwards taken by the Dutch and called New-Amsterdam. When it fell in-

to the hands of the English, it was called by its present name. It contains about 100 good houses, and was formerly the seat of government. This is the first town that was settled on Delaware river. It carries on a brisk trade with Philadelphia and Baltimore.

Milford is situated at the source of a small river, 15 miles from Delaware bay, and 150 southward of Philadelphia. This town, which contains about 80 houses, has been built, except one house, since the revolution. It is laid out with much good taste, and is by no means disagreeable. The inhabitants are Episcopalians, Quakers, and Methodists.

Duck Creek Cross Roads, is 12 miles northwest from Dover, and has 80 or 90 houses, which stand on one street. It carries on a considerable trade with Philadelphia, and is one of the largest wheat markets in the state. Kent is also a place of considerable trade.

Port Penn is situated upon the shore of the Delaware, ten miles south of Newcastle. It contains but few inhabitants; and its commerce is small.

Newport is situated upon Christiana creek, three miles west of Wilmington. It contains about 200 inhabitants. The principal business is to transport flour to Philadelphia, and to bring in return foreign articles for the consumption of the country.

Christianabridge is at the head of the navigable part of the Christiana, eight miles southwest of Wilmington. It contains about 200 inhabitants. Its commerce is similar to that of Newport, but somewhat more considerable; being the greatest carrying place between the navigable waters of the Delaware and Chesapeak, which are 13 miles asunder at this place.

Appoquiniminkbridge is 23 miles south of Wilmington; the village contains about 200 inhabitants. The principal business is the transportation of flour and grain to Philadelphia and Brandywine, and the sale of foreign goods for the consumption of the neighbourhood.

Lewistown is situated a few miles above the lighthouse, on cape Henlopen. It contains about 150 houses, built chiefly on a street which is more than three miles in length, and extending along a creek which separates the town from the pitch of the cape. The situation is high, and commands a full prospect of the lighthouse, and the sea. The courthouse and gaol are commodious buildings, and give an air of importance to the town. The situation of this place must at some future time render it of considerable importance. Placed at the entrance of a bay, which is crowded with vessels from all parts of the world, and which is frequently closed with ice a part of the winter season, necessity seems to require, and nature seems to suggest, the forming this port into a harbor for shipping. Nothing has prevented this heretofore, but the deficiency of water in the creek. This want can be cheaply and easily supplied by a small canal, so as to afford a passage for the waters of Rehoboth into Lewes creek, which would ensure an adequate supply. The circumjacent country is beautifully diversified with hills, wood, streams, and lakes, forming an agreeable contrast to the

naked sandy beach, which terminates in the cape; but it is greatly infested with musketoes and sand flies.

Georgetown is about 15 miles west of Lewistown, and is now the seat of government for Sussex county. It contained, in 1804, about 30 or 40 houses, all built within a few years. The courts were removed to this place, as being more central than Lewis.

Bridge. A bridge is erected in the township of Lewes over a wide creek and marsh, to the opposite cape. It extends about a quarter of a mile.

Canal. The Delaware and Chesapeak canal is to pass between Elk river and Christiana creek. It has already been described. Another canal is to be opened between Levites creek and Rehoboth bay.

Manufactures. Almost the whole of the foreign exports of Delaware are from Wilmington: the trade from this state to Philadelphia is great, being the principal source whence that city draws its staple commodity. No less than 150,000 barrels of flour, 300,000 bushels of wheat, 170,000 bushels of Indian corn, besides barley, oats, flax-seed, paper, slit iron, snuff, salted provisions, &c. &c. to a very considerable amount, are annually sent from the waters of the Delaware state; of which the Christiana is by far the most productive, and probably many times as much so as any other creek or river of like magnitude in the union—245,000 barrels of flour, and other articles to the amount of 80,000 dollars more, being from this creek; of which, to the value of 550,000 dollars, are manufactured on its northern bank, within two or three miles of the navigation.

In the county of Newcastle are several fulling mills, two snuff mills, one slitting mill, four paper mills, and sixty mills for grinding grain, all of which are turned by water. But though Wilmington and its neighborhood are probably already the greatest seat of manufactures in the United States, yet, they are capable of being much improved in this respect, as the country is hilly and abounds with running water; the Brandywine alone might, with a moderate expence, when compared with the object, be brought to the top of the hill upon which Wilmington is situated, whereby a fall sufficient for forty mills, in addition to those already built, would be obtained.

The manufacture of flour is carried to a higher degree of perfection in this state than in any other in the union. Besides the well constructed mills on Red Clay and White Clay creeks, and other streams in different parts of the state, the celebrated collection of mills at Brandywine merit a particular description. Here are to be seen, at one view, 12 merchant mills (besides a saw mill) which have double that number of pairs of stones, all of superior dimensions, and excellent construction. These mills are 3 miles from the mouth of the creek on which they stand, half a mile from Wilmington, and 27 from Philadelphia, on the post road from the eastern to the southern states. They are called the Brandywine mills, from the stream on which they are erected. This stream furnishes numerous seats (130 of which are already occupied) for every species of water works. The quantity of wheat manufactur-

ed at these mills, annually, is not accurately ascertained. It is estimated, however, by the best informed on the subject, that these mills can grind 400,000 bushels in a year. But although they are capable of manufacturing this quantity yearly, yet from the difficulty of procuring a permanent supply of grain, the instability of the flour market, and other circumstances, there are not commonly more than from about 290 to 300,000 bushels of wheat and corn manufactured here annually. In the fall of 1789, and spring of 1790, there were made at the Brandywine mills 50,000 barrels of superfine flour, 1354 do. of common, 400 do. middling, as many of ship stuff, and 2000 do. corn meal. The quantity of wheat and corn ground, from which this flour, &c. was made, was 308,000 bushels, equal to the export in those articles from the port of Philadelphia for the same year.

These mills give employ to about 200 persons, viz. about 40 to tend the mills, from 50 to 70 coopers to make casks for the flour, a sufficient number to man 12 sloops of about 30 tons each, which are employed in the transportation of the wheat and flour, the rest in various other occupations connected with the mills. The navigation quite to these mills is such, that a vessel carrying 1000 bushels of wheat may be laid along side of any of these mills; and beside some of them the water is of sufficient depth to admit vessels of twice the above size. The vessels are unloaded with astonishing expedition. There have been instances of 1000 bushels being carried to the height of 4 stories in 4 hours. It is frequently the case that vessels with 1000 bushels of wheat come up with flood tide, unlade and go away the succeeding ebb with 300 barrels of flour on board. In consequence of the machines introduced by the ingenious Mr. Oliver Evans, three quarters of the manual labor before found necessary is now sufficient for every purpose. By means of these machines, when made use of in the full extent proposed by the inventor, the wheat will be received on the shallop's deck, thence carried to the upper loft of the mill, and a considerable portion of the same returned in flour on the lower floor, ready for packing, without the assistance of manual labor, but in a very small degree, in proportion to the business done. The transportation of flour from the mills to the port of Wilmington, does not require half an hour, and it is frequently the case that a cargo is taken from the mills and delivered at Philadelphia the same day. The situation of these mills is very pleasant and healthful. The first mill was built here about 60 years since. There is now a small town of 40 houses, principally stone and brick, which, together with the mills, and the vessels loading and unloading beside them, furnish a charming prospect from the bridge, from whence they are all in full view.

The manufacture of paper, iron, gunpowder, &c. has increased; gunpowder is but lately manufactured here; but it is believed the most expensive works of the kind are within 5 miles of Wilmington, and the powder, under the name of the Brandywine powder, has obtained great celebrity. An estimate of the value of the different articles shipped from, and brought into, the Christiana creek,

exclusive of wood, hay, lumber, and plaster of Paris, exceeded 4 millions of dollars in 1804.

Commerce. The exports from Delaware, in 1804, amounted to $697,396; and, in 1810, to $120,342. Flour is the capital article. Lumber is also exported in large quantities, and is procured chiefly from the Cypress swamp.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. BAYS. SWAMPS. MINERALS.

Face of the Country. THE northern half of the county of Newcastle is hilly. The rest of the state is generally level and low. Large tracts of land in the spring and early in the summer are overspread with stagnant water, which renders them unhealthy, and unfit for agriculture. The spine, or height of land, in the peninsula between the two bays, is in this state. In the south it commences in the Cypress swamp, and preserves a general parallelism with the west coast of Delaware bay, at the distance of about 15 miles from it. In the upper county it is on the border of Maryland. Its progress is marked by a chain of swamps, in the two lower counties and a part of Newcastle, from which the waters descend on each side to the Delaware and Chesapeak. The height of this ridge between Elk river and Christiana creek is 74 feet.

Soil and Agriculture. Delaware is chiefly an agricultural state. It includes a very fertile tract of country; and scarcely any part of the union is better adapted to the different purposes of agriculture, or in which a great variety of the most useful productions can be so conveniently and plentifully reared. The soil along the Delaware river, and from eight to ten miles into the interior country, is generally a rich clay, producing large timber, and well adapted to the various purposes of agriculture. Thence to the swamps above mentioned, the soil is light, sandy, and of an inferior quality.

The general aspect of the country is very favourable for cultivation. In the county of Newcastle, the soil consists of a strong clay; in Kent, there is a considerable mixture of sand; and in Sussex, the quantity of sand altogether predominates. Wheat is the staple of this state. It grows here in such perfection as not only to be particularly sought by the manufacturers of flour throughout the union, but also to be distinguished and preferred, for its superior qualities, in foreign markets. This wheat posseses an uncommon softness and whiteness, very favourable to the manufacture of superfine flour, and in other respects far exceeds the hard and flinty grains raised in general on the higher lands. Besides wheat, this state generally produces plentiful crops of Indian corn, barley, rye, oats, flax, buckwheat, and potatoes. It abounds in natural and artificial meadows, containing a large variety of grasses.

Hemp, cotton, and silk, if properly attended to, doubtless would flourish very well.

The county of Sussex, besides producing a considerable quantity of grain, particularly of Indian corn, possesses excellent grazing lands. This county also exports very large quantites of lumber, obtained chiefly from an extensive swamp, called the Indian river, or Cypress swamp.

Rivers. The Delaware, is for a small distance, the eastern boundary.

Brandywine creek rises in Chester county, Pennsylvania, and, running E. of S. 45 miles, falls into the Delaware, 2 miles below Wilmington. Christiana creek rises on the confines of Maryland, and pursues an easterly course of 25 miles to the Brandywine, falling in about a mile from the Delaware. It is navigable for boats to Christiana bridge, 13 miles. Duck creek is the frontier of Newcastle and Kent. The names of the other streams are Jones's creek, Motherkill, Mispillion creek, Broadkill, and Indian river. This last receives the waters of the Cypress swamp.

The Nanticoke runs a part of its course in Delaware.

Bays. Delaware bay is half in this state and half in New-Jersey. Rehoboth bay, south of cape Henlopen, is separated by a narrow bar from the ocean.

Swamps. More than half of Cypress swamp lies in Delaware. It is 12 miles long, from N. to S. and 6 wide, containing nearly 50,000 acres. It is a high and level bason, extremely wet, though on the ridge between the Chesapeak and the Atlantic. It contains a very great variety of plants, trees, wild beasts, birds, and reptiles. The succession of swamps farther north has been mentioned.

Minerals. In the county of Sussex, among the branches of Nanticoke river, large quantities of bog iron ore are to be found. Before the revolution, this ore was worked to a considerable extent; it was thought to be of good quality, and peculiarly adapted to the purposes of castings. These works have chiefly fallen to decay.

PENNSYLVANIA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. LAWS. POPULATION. MILITIA. FORTS. INVENTIONS. BANKS. MANNERS AND CUSTOMS. LITERATURE. STATE OF MEDICAL SCIENCE. CITIES AND TOWNS. ROADS. BRIDGES. CANALS. MANUFACTURES. COMMERCE.

Extent. THE shape of Pennsylvania is more regular than that of any state in the union, except Connecticut. Its northern and

southern lines are chiefly in two parallels, and its western is a meridian line. The greatest length is 307 miles from E. to W. The greatest breadth is 180, and the common breadth between the two parallels 160. It lies between lat. 39 42 and 42 17 N. and between lon. 74 32 and 80 27 W. The state contains about 46,800 square miles.

Boundaries. Bounded on the N. by lake Erie and New-York; on the E. by a small part of New-York, and Delaware river, which separates it from New-York and New-Jersey; on the S. by the states of Delaware, Maryland, and Virginia; and on the W. by Virginia and Ohio. On the western line Ohio extends 90 miles, and Virginia 68; on the southern, Virginia 54, and Maryland 196 miles.

Divisions. This state is divided into 43 counties and 644 towns as follow:

Counties.	No. towns.	No. inh. in 1800.	No. inh. in 1810.	Chief towns.
City and county of Philadelphia	18	81,009	111,200	Philadelphia
Montgomery	30	24,150	29,703	Norristown
Bucks	32	27,496	32,371	Newtown
Delaware	21	12,809	14,734	Chester
Chester	40	32,093	39,596	West-Chester
Lancaster	25	43,403	53,927	Lancaster
Berks	38	32,407	43,156	Reading
Northampton	35	30,062	38,145	Easton
Luzerne	29	12,839	18,109	Wilksbarre
Dauphin	15	22,270	31,883	Harrisburg
Northumberland	26	27,797	36,327	Sunbury
Wayne	12	2,562	4,125	
Adams	18	13,172	15,152	Gettysburg
Allegany	16	15,087	25,317	Pittsburg
Armstrong	7	2,399	6,143	
Beaver	12	5,776	12,168	Beaverton
Bedford	15	12,039	15,746	Bedford
Butler	13	3,916	7,346	
Crawford	14	2,346	6,178	Meadville
Cumberland	18	25,386	26,757	Carlisle
Fayette	19	20,159	24,714	Union
Franklin	14	19,638	23,083	Chamberston
Green	10	8,605	12,544	Waynesborough
Huntingdon	18	13,008	14,778	Huntingdon
Lycoming	18	5,414	11,006	Williamsport
Mercer	16	3,220	8,277	
Mifflin and Center	20	13,609	22,813	Lewisburg and Bellefont
Somerset	15	10,188	11,284	Somerset
Venango	8	1,130	3,060	Franklin
Warren	2	233	827	Warren
Washington	23	28,298	36,289	Washington
Westmoreland	14	22,726	26,392	Greensburg

Counties.	No. towns.	No. inh. in 1800.	No. inh. in 1810.	Chief towns.
York	22	25,643	31,958	York
Erie	6	1,468	3,758	Erie
Cambria	3		2,117	
Indiana	7		6,214	
Clearfield	1		875	Clearfield
Jefferson	1		161	Jefferson
Tioga	2		1,687	
Potter	1		29	Potter
M'Kean	1		142	
Total	644	602,545	810,091	

Name. The name of this state is merely that of the original proprietor, Penn, and a common termination, derived from *sylva*, a wood or forest, annexed. It was given to the territory in 1681.

History. In consequence of the recommendation of Gustavus Adolphus, a colony of Swedes and Finns, in 1627, came over to America. They landed at cape Henlopen, and bought the lands of the natives from that cape to the falls of the Delaware, which they called *New-Swedeland Stream.* Of these lands they accordingly took possession. In 1630, they built a fort at Lewistown, near cape Henlopen; and, the next year, another at Christiana. They formed various settlements along the west bank of the Delaware, as high as Trenton, and in the interior towards the Susquehannah; and instituted a regular government, founded on wise and correct principles. It was earnestly enjoined, to make fair purchases from the Indians, as the rightful owners of the land, and to treat them with kindness; to support religion and good manners: to explore and cultivate valuable materials for agriculture, manufactures, and commerce. A few bad characters came out with the first emigrants; but, by a subsequent edict, persons of that description were strictly restrained. The small colony were in a thriving state until the dispute with the Dutch, who were already established in New-York, and set up a prior claim to the Delaware. Unsupported by a distant mother country, then involved in war with five principal powers of Europe, it was conquered in the year 1654, and afterwards became, with the other Dutch possessions in North-America, part of the British dominions.

In March, 1681, Charles II. granted a charter to William Penn, the son of admiral sir William Penn, of the territory between Delaware river and bay, and lord Baltimore's province of Maryland. In July of the same year Penn disposed of 20,000 acres for 400*l.* to a company consisting chiefly of Friends, commonly called Quakers; a colony of whom came over towards the close of the year, and commenced a settlement above the confluence of the Schuylkill with the Delaware. Penn, the next year, published a frame of government, and a body of laws, agreed on between him and the purchasers; and obtained of the duke of York his deed of release for the territory, and two deeds conveying to him a tract of land at first called *The Territories of Pennsylvania;* afterwards *The Three*

Lower Counties on Delaware. Penn himself arrived in October, and called an assembly of the province at Upland (Chester) in December, by which the three lower counties were annexed to the province. He now purchased of the natives as much of the soil as the colony needed.

In 1683 he granted the freemen a new charter, and the assembly was first held at Philadelphia, which he had planned the preceding year. Ten years afterwards the king and queen assumed the government into their own hands, and appointed a common governor for this province and New-York.

In 1694 Penn was reinstated in the government, and he appointed a lieutenant governor of the province. Two years after, the assembly of the province prepared a new frame of government, which was approved of by the governor, who granted a new charter.

In 1700 the assembly surrendered this charter, and Penn the next year prepared his last charter, which was accepted by a majority of the assembly, but rejected by the representatives of the *Territories*; in consequence of which it was agreed (in 1703) that the representatives of the province and those of the territories should compose two distinct assemblies entirely independent of each other.

In 1742 the deputies of the Six Nations relinquished a very large tract on the Susquehannah to the state.

In 1758 gen. Forbes marched with a company from Philadelphia, and reduced fort Du Quesne, which was called Pittsburg.

In the early part of the revolution the legislature of this state offered the proprietors 130,000*l.* in lieu of all quit rents, which was accepted by them.

In Sept. 1777, this state was made the theatre of war. The battle of Brandywine was fought on the 11th of that month, in which the Americans were defeated; and Philadelphia was taken by sir William Howe on the 27th. The battle of Germantown, unfortunate to the Americans, was fought on the 4th of October. In November the British took fort Mifflin and Mercer. In June, 1778, the British evacuated Philadelphia and marched into New-Jersey. The Pennsylvania line, with part of the New-Jersey troops, in January, 1781, revolted, complaining of a want of pay and of suitable clothing; the complaints were redressed, and subordination was restored.

In 1793, and 1797, the city of Philadelphia was visited with the yellow fever. In the latter year 1276 persons died.

An insurrection took place, 1794, in the 4 western counties, to resist the laws of the union, laying a duty on distilled spirits. On the approach of a respectable force, in October, the insurgents laid down their arms, and were pardoned.

In 1799 the seat of the state government was removed from Philadelphia to Lancaster; and, in 1800, the seat of the federal government was removed from Philadelphia to Washington.

Religion. In Pennsylvania were the following denominations of Christians, with the number of their respective congregations, taken from the minutes of the proceedings of each society, about 10 years since, viz. Presbyterians 86 congregations; German Calvinists 84;

German Lutherans 84; Friends or Quakers 54; Episcopalians 26; Baptists 15; Roman Catholics 11; Scotch Presbyterians 8; Moravians 8; Free Quakers 1; Universalists 1; Covenanters 1; Methodists several, besides a Jewish Synagogue: In all about 400 religious societies. The present number exceeds 600. Until the revolution, Roman Catholics and Jews were excluded from a share in the government. The latter continued under this disadvantage, until the new constitution gave them, and all people of whatsoever nation or religion, unlimited liberty of conscience, with capacity for all civil rights and privileges.

Government. The constitution of the state was established Sept. 2, 1790. It vests the legislative power in a senate and house of representatives. The number of senators cannot be less than one fourth, nor greater than one third, of the number of representatives. They hold their offices 4 years, and one fourth of them are elected each year. They are chosen by districts. The qualifications for the senate, are the age of 25 years, and 4 years residence immediately preceding the election. The number of representatives cannot be less than 60, nor more than 100. They are chosen annually by the city of Philadelphia, and the respective counties. The qualifications for a representative are the age of majority, and 1 year's residence immediately preceding the election. The legislature meet once a year in December. The executive power is vested in a governor, who must be 30 years of age, and have resided in the state the 7 years next before his election. He is elected for 3 years; but cannot be chosen above 9 out of any 12 years. He has the appointment of subordinate officers. If the governor return a bill presented for his approbation, two thirds of each house must concur to render it a law.

All persons have the right of voting, who pay taxes. The election takes place in October.

The judicial power is vested in a supreme court consisting of 4 judges, courts of oyer and terminer, courts of common pleas, orphan's courts, register's courts, courts of quarter sessions, and justices courts. The judges of the supreme court, and of the courts of common pleas, hold their office during good behaviour.

Laws. Among other useful public laws of this state, are, one that declares all rivers and creeks to be highways—a law for the emancipation of negroes—a bankrupt law, nearly on the model of the bankrupt laws of England—a law commuting hard labor for a long term of years, for death, as a punishment of many crimes which are made capital by the laws of England. Murder, arson, and one or two other crimes, are yet punished with death.

Population. The number of taxable inhabitants, in 1760, was 36,667; in 1770, 39,765; and, in 1793, 91,177. The whole number of inhabitants was in the year

1749 about 220,000

1790	424,099 whites	434,373	
	3,737 slaves		
	6,537 free bl.		
1800	586,275 whites	602,545	
	1,706 slaves		
	14,564 free bl.		
1810	786,804 whites	810,091	
	795 slaves		
	22,492 free bl.		

The following were the items of the census of 1810 :

	males.	females.	total.
Under 16 years of age	201,070	192,712	393,782
Between 16 and 45	148,396	146,786	295,182
45 and upwards	52,100	45,740	97,840
Total	401,566	385,238	786,804

Pennsylvania is entitled to 23 representatives to Congress.

Pennsylvania, at the first and second census, was, in point of total population, the second state ; and, at the third census, the third state. At the fourth, it will undoubtedly be the second. Its white population at the third census was second only to that of New-York.

Militia. In 1800 there were in this state,

Infantry in battalion	66,116
Flank companies	18,648
Artillery and cavalry	8,467
Total	93,221

The state at that time contained 602,545 souls. Supposing the militia to bear the same proportion to the whole number of inhabitants in 1810, as in 1800, they will now amount to about 125,000.

Forts, &c. On Mud island is a citadel, and a fort not completed. Opposite Mud island, on a sand bar, a large pier has been erected, as the foundation for a battery, to make a cross fire. The garrison about to be erected by the United States, at Presque isle, will be upon a very commanding spot, just opposite the entrance of the bay. The town commences 30 yards west of the old British fort, leaving a vacancy of 600 yards, which will serve for a military and public walk, and add much to the beauty of the place. The town which is now building, will extend nearly three miles along the lake, and one mile back.

New Inventions. These have been numerous and useful. Among others are the following : A new model of the planetary worlds, by Mr. Rittenhouse, commonly, but improperly, called an orrery—a quadrant, by Mr. Godfrey, called by the plagiary name of Hadley's quadrant—a steam boat, so constructed, as that by the assistance of steam, operating on certain machinery within the boat, it moves with considerable rapidity against the stream, without the aid of hands. Messrs. Fitch and Rumsay contend with each other, for the honor of this invention. Besides these there have been invented many manufacturing machines, for carding, spinning, winnowing, &c. which perform an immense deal of work with very little manual assistance. Dr. Franklin, the great improver of electrical science, had great merit as a promoter of general useful knowledge.

Banks. There are 4 banks in the state. The following are their names and capitals :

Pennsylvania Bank	$2,500,000
Philadelphia Bank	1,800,000
Bank of North-America	800,000
Farmers' and Mechanics' Bank	1,250,000
	$6,350,000

Manners and Customs. About half of the inhabitants are of English and New-England origin, about a fourth German, and an eighth Irish. The rest are Scotch, Welch, Swedes, and Dutch. These various classes retain in a great degree, their own national character. The Germans, Dutch, and Catholic Irish retain their own languages, and many of them cannot speak English. The Swedes, who have the character of "probity, mildness, and hospitality," have blended the English language with their own, and speak neither well. The diversities of religion here are also very great. The inhabitants, who are of English and New-England origin, are mostly Friends, Episcopalians, and Presbyterians. They live principally in the city of Philadelphia, and in the counties of Chester, Philadelphia, Bucks, Montgomery, and Luzerne. The Irish, and descendants of Irish, are chiefly settled in the western and frontier counties; a large proportion of them are Presbyterians from the north of Ireland. There are likewise many Roman Catholics from this nation.

The Germans are most numerous in the north part of the city of Philadelphia, and in the counties of Philadelphia, Montgomery, Bucks, Dauphin, Lancaster, York, and Northampton; chiefly in the four last; but are spreading in other parts. They consist of Lutherans, (who are the most numerous sect among them) Calvinists or reformed church, Moravians, Catholics, Mennonists, Dutch Baptists, (corruptly called Tunkers and Dunkers, by way of reproach) and Zwingfelters, who are a species of Quakers. These are all distinguished for their temperance, industry, and economy. The Germans have usually about a fourth of the members in the assembly; and some of them have arisen to the first honors in the state, and now fill a number of the higher offices. Pennsylvania is much obliged to the Germans for improvements in agriculture; but their imperfect knowledge of the English language makes them deficient in literature and political knowledge. They would derive advantage by studying the many excellent modern authors in their own language, with whom they are now unacquainted.

The Baptists (except the Mennonist and Dutch Baptists) are chiefly the descendants of emigrants from Wales, and are not numerous.

There is nothing in short to give the inhabitants a common character, but every thing to excite religious, political, and national jealousies. It is probably owing to this fact, and to the political importance given by the laws to emigrants of every description from Europe, that this state has been, since the revolution, more unquiet than any other in the union. It is owing to the same reasons probably that more than half of the Europeans, who emigrate to the

United States, enter the Delaware. This state alone has permitted foreigners to hold lands without becoming citizens.

Literature. Dickinson college* at Carlisle, was founded in 1783, and put under the care of 40 trustees. It has a principal, who is professor of logic, metaphysics, and moral philosophy, a professor of mathematics; of the learned languages; of modern languages; a lecturer on natural philosophy and chemistry, and a tutor; a philosophical apparatus, and a library of about 3000 volumes; 10,000 acres of land, and $10,666·67 in funded certificates. The number of students is about 100. This seminary is flourishing.

There is an institution in Philadelphia, called the university of Pennsylvania, formed by the union of two literary institutions, which had previously existed a considerable time in Philadelphia, one designated by the above name; the other, by that of the college, academy, and charitable schools of Philadelphia. They now constitute a respectable seminary, incorporated in 1791. The philosophical apparatus, which was before very complete, has been lately increased to the value of several hundred pounds. The funds of the university produce annually a revenue of about 2365*l.* The aggregate number of students, in the several schools, is, on an average, about 510; and the number usually admitted to degrees in each year, about 25. The medical establishment connected with it is the most respectable in the union.†

In 1787, a college was founded at Lancaster, and named Franklin college, after Dr. Franklin. This college was for the Germans, for the purpose of educating their youth in their own language, and in conformity to their own habits. The English language, however, was taught in it. Its endowments are nearly the same as those of Dickinson college. Its trustees consist of Lutherans, Presbyterians, and Calvinists, German, and English; of each an equal number. The principal is a Lutheran, and the vice principal a Calvinist. This institution hitherto has been little better than nominal.

At Washington, in the western part of the state, a college was established about 1802, with a fund of several thousand acres of land.

The Episcopalians have an academy at Yorktown, in York county. There are also academies at Germantown, at Pittsburg, at Allenstown, and other places; these are endowed by donations from the legislature, and by liberal contributions of individuals.

The schools for young men and women in Bethlehem and Nazareth, under the direction of the people called Moravians, are among the best establishments of the kind in America. Besides these, there are numerous private schools in different parts of the state; and, to promote the education of poor children, the legislature has appropriated a large tract of land for the establishment of free schools. A bill for establishing schools throughout the state, was passed February, 1796. Much however, remains to be done on this subject.

* Named after the Hon. John Dickinson, of Pennsylvania.

† See the following article.

State of Medical Science. The rise, progress, and present state of medical knowledge in Pennsylvania, furnish a standard of comparison in medical enterprize in reference to her sister states, which may justly yield her high satisfaction from the conscious superiority of her own institutions. In 1764, Dr. Shippen commenced a course of lectures on anatomy and surgery, which were the first lectures on those subjects ever given in this western hemisphere. Ten pupils comprised his whole audience during his first course of lectures. In 1807 the same professor gave lectures to three hundred and fifty. At this time he experienced the satisfaction of having his own pupils in all the other branches of medicine, as his coadjutors and fellow professors. The course of 1810, and 1811, was attended by a class comprising somewhat more than five hundred. The medical institution is now divided into six professorships, which with the names of the professors follow, viz. on the theory and practice of physic and clinical medicine, by Benjamin Rush, M. D.; on anatomy, by Caspar Wistar, M. D.; on materia medica, botany, and natural history, by Benjamin Smith Barton, M. D.; on surgery, by Philip Syng Physic, M. D.; John Syng Dorsey, M. D. adjunct professor; on chemistry, by John Redman Cox, M. D.; on midwifery, by Dr. James. This school, already a rival to the medical school at Edinburgh, must furnish even greater advantages to the American student in medicine, inasmuch as a familiar acquaintance with the character of the diseases arising from soil, climate, and state of society in the district destined to become his sphere of action, must very considerably extend his usefulness. The lectures annually commence the first Monday in November and terminate the first of March, following. Connected with the medical school is a large hospital, which has a well furnished medical library and anatomical museum. Free access to all these advanges is enjoyed by the students on paying ten dollars to the use of the establishment.*

Cities and Towns. PHILADELPHIA, the Indian Coaquannoc, and, after New-York, the most populous city of the union, was planned and founded by William Penn, in 1682; and, in less than a year, contained 80 houses and cottages. It was incorporated by Penn immediately before his return to England in 1701. The ground plot of the city, as originally laid out, was a parallelogram of 2 miles E. and W. by 1 N. and S; in the narrowest part of the isthmus between the Schuylkill and the Delaware, and 5 miles above their confluence. It is generally elevated 40 feet above the rivers. At present the city extends E. and W. 2 miles between the two rivers, and N. and S. 1 mile on the Schuykill, and 3 on the Delaware. The streets cross each other at right angles. Nine, of two miles in length, run from river to river, and 23 of 1 mile or upwards, run N. and S. Beside these, there are many shorter streets dividing the original squares. Two main streets of 100 feet wide, cross each other in the centre, and form a public square. None of the original streets are less than 50 feet wide. They are kept uncom-

* For the preceding article the author is indebted to Dr. Shattuck of Boston.

mommly clean, and are paved with pebbles ; and the foot walks, on each side, of brick, are broad, and raised one foot above the carriage way. They are handsomely lighted at night. The houses are principally of brick, three stories high, and built in a plain, neat, style, without much display of ornament. Those in Sansom street are uniform ; as are most of those in Walnut and Second streets. The number of houses in 1769, was 4474. The population in 1790, was 28,522, in 1800, 41,220, and in 1810, 53,722 ; exclusive of the suburbs. Including the suburbs, in 1810, there were 92,247 inhabitants in Philadelphia. The city contains 35 churches. The most numerous denominations are Presbyterians, Friends, Episcopalians, Baptists, and Catholics. The first Presbyterian, and the German Lutheran, are among the handsomest of these buildings. The other edifices are a statehouse,* built in 1753,admired for its architecture, with a garden occupying a whole square ; a town hall with a front of 200 feet, a library, a gaol, a hollow square, 100 feet in front, and unusually strong ; a market in High street, reaching from Front to Fourth streets, and supported by 300 pillars ; the Pennsylvania bank, in Second street, a most beautiful marble edifice of the Ionic order, after the model of the temple of Minerva ; a new theatre in Chesnut street ; and the university building, formerly a house for the president of the United States. Two steam engine houses have been erected for supplying the city with wholesome water from the Schuylkill. One of these is a handsome building of white marble, the base of which is square and the superstructure circular. It stands in the centre of High and Broad streets, exactly upon the point of intersection, and is surrounded by a large circular inclosure, which is planted with trees. This building commands a view of High street in its whole extent, from river to river, and is itself a handsome object, as seen from various parts of the city. In this marble rotunda, the water is raised 30 or 40 feet above the highest ground in the city. A permanent bridge over the Schuylkill,opposite to Market street, consists of 3 arches, resting on stone piers, and is one of the most superb structures of the kind in America.

The trade of the city is very extensive. It imports foreign goods for the greater part of the state, for half of New-Jersey, and for Delaware ; and is now contending with New-York, New-Orleans, and Montreal, for the commerce of the western part of New-York, and of the western states. The Delaware is navigable, as far as Philadelphia, for ships of any size, and for sloops to Trenton. The Schuylkill is navigable, for large ships, as high as the town. Almost all the exports from Pennsylvania, except what go down the Ohio, are shipped from this city. The aggregate tonnage for the year 1805, was 88,229 tons ; for the year 1810, 121,443. The Philadelphia library contains more than 20,000 volumes ; most of them well selected, and accessible to all persons. The chief literary and humane societies are the American philosophical society ;

* In the state house, Mr. Peal keeps his museum, by special permission of the legislature. It is the largest collection of natural curiosities in America. In it are 400 species of birds, some living animals, &c. &c.

the college of physicians; the society for promoting political inquiries; the Pennsylvania hospital; the Philadelphia dispensary; the Pennsylvania society for the abolition of slavery; the society for alleviating the miseries of prisons; the Pennsylvania society for the encouragement of manufactures and useful arts; the Philadelphia society for the information and assistance of immigrants, and two other societies of the same kind; one for the relief of German, and another for the relief of Irish immigrants; and a humane, an agricultural, marine, and various other charitable societies. Few cities in the world, of the same population and riches as Philadelphia, are better provided with useful institutions, both public and private. There are also a sufficient number of academies for the instruction of both sexes. Almost every religious society has one or more schools under its immediate direction, where children belonging to the society are taught to read and write, and are furnished with books and stationary articles.

This city is governed by a mayor, recorder, 15 aldermen, and 30 common council men; according to its present charter, granted in the year 1789. The mayor, recorder, 8 aldermen, and 16 common council men, make a quorum to transact business; they have full power to constitute and ordain laws and ordinances for the governing of the city; the mayor, recorder, and aldermen, are justices of the peace, and justices of oyer and terminer. They hold a court four times a year, to take cognizance of all crimes and misdemeanors committed within the city; two aldermen, appointed by the mayor and recorder, hold a court on the forenoon of Monday and Thursday of every week, to judge of all matters which are cognizable before a justice of the peace.

The city is increasing very rapidly. In 1802, there were built in this city 464 houses, in 1803, 385, in 1804, 273 houses. The environs of this city, are very pleasant, and finely cultivated. Philadelphia lies in lat. 39 56 54 N. lon. 75 8 45 W. from London. It is 110 miles from the ocean, by the river and bay, 60 in a S. E. direction. It is 347 miles S W. of Boston, 95 from New-York, 144 N. E. of Washington.

Lancaster is the seat of government, and the largest inland town in the United States, 58 miles N. W. of Philadelphia. It is built on a side hill, a mile and a half W. of Conestoga creek; which falls into the Susquehannah, 9 miles S. by W. from the town. The public buildings are a handsome statehouse and markethouse of brick, a strong stone gaol, and 6 churches for Presbyterians, Episcopalians, German Lutherans, German Calvinists, Moravians, and Catholics. The population in 1800, was 4,292, and in 1810, 5,405. This town bids fair to be the seat of extensive manufactures.

Pittsburg lies on a beautiful plain, between the Allegany and Monongahela, at their confluence. The site of the town is low, and liable to inundations. The streets cross each other at right angles, and the plan of the town resembles that of Philadelphia. It contained in 1808, about 400 houses, and in 1810, 4,768 inhabitants. It has a courthouse, gaol, 4 churches, and an acade-

my. The navigation of the Ohio, in a dry season, is difficult as far down as *Mingo town*, 75 miles. In the spring it is always deep enough, for vessels of 200 tons. Pittsburg is 303 miles W. by N. from Philadelphia; its neighboring hills abound with coal; it is already an important manufacturing town; and is probably destined to be one of the large cities of the western country. Lat. 40 31 44 N. lon. 80 8 W.

CARLISLE, 125 miles W. by N. from Philadelphia, is built on a pleasant plain, near the southern bank of Conedogwinet creek. The streets cross each other at right angles. The public buildings are a court house, gaol, college, and 4 churches. Population in 1800, 2032; in 1810, 2491.

Bethlehem is 53, and Nazareth 63 miles, N. of Philadelphia. These are the two principal settlements of the Moravians, and here their far famed and useful schools are established. The other considerable towns in this state, are Yorktown, Harrisburg, Washington, Reading, Newtown, and Sunbury.

Roads. Many of the turnpikes, leading from Philadelphia in various directions, are of the most substantial kind. The road from Philadelphia to Trenton, 28 miles, is of this description. The road through Germantown to Perkiomen, 25 miles; with branches to Willow grove, 10 miles, and to Chesnut hill, 7½ miles, is 50 feet broad; 28 of which, having a convexity of 15 inches, are covered with a stratum, either of gravel 18 inches thick, or of pounded stones, 12 inches thick. The expence, beside that of the branches, was $285,000, the nett income is $9000. The road to Lancaster, 62 miles, cost $465,000; and the nett income is $12,000. It is 24 feet wide, beside the side walks, and is covered with 18 inches of pounded stone. A branch from this road, from Lancaster N. W. to Harrisburg, 35 miles, has been completed. The main road, also, had been, in 1808, carried 10 miles farther W. to Columbia. It has since been extended a considerable distance farther towards Pittsburg; and is to run through Bedford and Somerset. The legislature also authorized a subscription of $350,000, for the state, towards a turnpike from Harrisburg to Pittsburg; and $200,000 towards a turnpike from Northumberland to Erie. A turnpike road is nearly completed from Philadelphia through Ephrata to Harrisburg; and another of 100 miles, from Lausanne, on the Lehigh, to Newtown, in New-York on the Tyoga.

Bridges. The bridge across the Schuylkill is 750 feet long and 42 wide. It rests on only two piers and the abutments. The piers are 195 feet apart, and are of the most solid workmanship. The expense was $300,000. The governor was authorized, in 1810, to subscribe $100,000 for the erection of a bridge at Columbia; $100,000 for another at Harrisburg; and $50,000 for another at Northumberland; all over the Susquehannah.

Canals. It has long been an object of contemplation to establish a water communication between lake Erie and Philadelphia. The country was surveyed in 1790 by public commissioners, who proposed the following route, the whole distance of which is 561 miles. Up the Schuylkill to Reading; thence to the head waters of the

Tulpehocken, which were to be connected by a canal with those of the Quitapahilla a branch of the Swetara, and down this last to the Susquehannah; thence up the Susquehannah, the Juniata, and the Frankstown branch, to Frank's Old town; thence by a canal to Poplar Run, and by a portage of 18 miles across the mountains to the Little Connemaugh, and down that river and the Kiskemanitas to the Allegany; thence up the Allegany and French creek to Le Boeuf; and thence by a portage of 15 miles to the lake.

Attempts have been made to complete the two first stages since 1791; but hitherto, owing to the want of funds, they have not been completed.

At the Conewago falls in the Susquehannah, in the gap of the Blue Ridge, the descent of which is 19 feet, a canal has been completed for several years 1 mile in length; expense $14,000.

Manufactures. Necessary tradesmen and mechanics, viz. shoe makers, tailors, weavers, carpenters, joiners, masons, coopers, smiths, cartwrights, tanners, and saddlers are settled on small farms or lots throughout the improved country; several are also found together in villages; but this mode is more customary in the thickly peopled parts, which cannot support many of a sort. Manufacturers, for whom there is less comparative demand, dwell chiefly in the towns, as cabinet makers, whitesmiths, tinners, potters, hatters, dyers, rope makers, nailors, silversmiths, brewers, distillers, &c. though many of these trades people are scattered through the country.

In the midland counties, many valuable manufactures have resulted from a flourishing agriculture, and immediately from their birth, have promoted the prosperity of the cultivators. Lancaster, in 1786, had about 700 families, of whom 234 were manufacturers; among these were 14 hatters, 17 saddlers, 25 weavers of woollen, linen, and cotton cloth, 3 brewers, 3 coppersmiths, 2 printers, in English and German, 6 clock and watch makers, 5 silversmiths. There were also, at the same time, within 39 miles of the town, 17 furnaces, forges, rolling and slitting mills; and within 10 miles of it, 18 grain mills, 16 saw mills, 1 fulling mill, 4 oil mills, 5 hemp mills, 2 boring and grinding mills for gun barrels, and 8 tanneries.

A new article has been added to the list of manufactures in this state, which is a wholesome and well tasted *maple sugar*,* made from the sap of the maple tree, which abounds in this state.

The product of domestic female industry is considerable. The wives and daughters of even opulent farmers knit and spin. In the towns, some ladies do the same. Woollen stockings are made sufficient for use: a large quantity of excellent quality, are wove by the Germans, especially in Germantown. Hemp is also used, in several places, for coarse wearing apparel, bags, seins and nets, &c. A great quantity is manufactured into cordage, cables and ropes; but of these, a large portion is imported.

* The manufacture of maple sugar has been considered as an important discovery of the *Whites*; but Brickell, in his history of North-Carolina, published about the year 1735, gives a description of the *Indian* method of making the maple sugar.

Iron-works are of long standing, and their products increase in quantity, and improve in quality. The furnaces are 16, and the forges 37.* The slitting and rolling-mills are said to cut and roll 1500 tons per annum. On the west side of the Allegany mountains are 11 forges, which by estimation make annually about 400 tons of iron. There are about as many furnaces; some of these have failed for want of ore. Among the fabricated articles are great numbers of stoves, both open and close, the use of which constantly increases; tongs, shovels, andirons; pots, kettles, ovens, pans, ladles; plough-irons, spades, hoes, sheet iron, hoops; iron and steel work for pleasure and working carriages; nails, bolts, spikes; various pieces for ships, mills, and buildings; cannon, balls, and some muskets; scythes, sickles, axes, drawing knives, some saws and planes, with other tools.

Manufactures of leather, skins and fur, are very extensive and good. Shoes and boots, saddles and bridles, housings, holsters, saddle bags, portmanteaus, whips, harness and leather materials for carriages, are made, not only for home use, but for exportation. Deerskin breeches, drawers, and men's gloves, answer full demand. Trunks covered with seal, deer, and other skins; with slings, belts, cartouch boxes and scabbards, are, of late, considerable articles. Hatting is a business long established, though at present under some difficulty, from scarcity of the fine northern fur; 300 hatters distributed over the state, make annually above 54,000† fur, and 161,000 wool hats. Muffs, tippets, linings, &c. are of increasing demand.

Near Canonsburg a cotton manufactory on an improved and extensive plan, has lately been established, by Mr. Peter Eltonhead, consisting of carding machines, mules which will draw from 100 to 144 threads of the finest kind, water spinning frames, &c.

The town of Harmony, in Butler county, in the N. W. part of the state, was settled in 1804 by a body of German emigrants, who style themselves the *Harmony society*. They migrated in a body, about 20 families, for the sake of enjoying liberty of conscience, and have since increased to upwards of 140 families. They are an example of order, industry, and frugality, and ingenuity, as citizens, agriculturalists, mechanics, and manufacturers.

The most respectable trades employed on materials of wood, are cabinet making, house carpentry, coach making, and ship building. Tables, chairs, sofas, bureaus, and all sorts of household furniture, are made to any demand, neat and elegant; walnut, maple, and wild cherry wood are the best native materials: mahogany is imported, and generally used by the wealthier people, especially in towns. Commodious and very elegant chariots, phaetons, chaises and sulkeys, are constructed for domestic and foreign use; particularly in Philadelphia, and the adjacent boroughs. The inward carpentry work, on private and public buildings, is, in general, well finished, and superior to the plan itself. The port of Philadelphia is among the first in the world for naval architecture. Masts, spars, timber,

* This account was written 8 years ago. Allowance must be made for the increase and changes, which have been made since that period.

† Some presume to estimate the number at upwards of 150,000.

and plank, from all the country up and down the Delaware, are constantly for sale in its market. The mulberry of the Chesapeak, and the live oak and red cedar of the Carolinas and Georgia, are so abundant, that a large proportion of the vessels are built of them. These are of a superior quality, and come cheaper than the best oak ships in European ports. A live oak and cedar ship of 200 tons, carpenter's measurement, before the late European war raised the price of shipping, could be fitted to take in a cargo for less than 50 Spanish dollars per ton. The return of new vessels built in Philadelphia during 1793, was 8145 tons. About 20 years before the annual average was only 2300. The form of the vessels is also generally admired.

Papers, of most kinds, form a beneficial branch. The mills are above 50, and their annual product is computed at 25,000 dollars. Writing and printing paper, of various qualities, except the largest and most costly, sheathing and wrapping paper, pasteboards, cards, and some paper hangings, are fabricated. Gunpowder is become a great article; 25 mills have been erected since the year 1770.

Manufactories in stone, clay, and fossils, are bricks, and the above-mentioned pieces in marble, both sufficient for demand; common earthen ware; grind stones; mill stones of an inferior sort. French burrs must be imported for good grain mills. Glass works are only in contemplation. Pot and pearl ashes make a good progress. Our limits permit only a short account of the trades employed in foreign materials. Tin wares are well executed for various domestic utensils, canteens, &c. Copper is manufactured into utensils for distillers, brewers, sugar refiners, and other manufacturers, some domestic uses, articles in ships, &c. Brass is wrought for the furniture of houses and carriages, cabin stoves, technical instruments, &c. Lead is worked into ball and shot, sheets, and door and window weights, &c. Pewter suits for distillers' worms, plates, basons, &c. Silver plate, in spoons and tea table articles, is very common, also buckles and other small articles. Gold and ornamental toys are of small account. Watches are mostly imported; those fabricated here, are constructed in part from foreign materials. Much cotton is worked up in families: the Philadelphia cotton factory was burnt in 1792; but new ones are erected. Linens imported are now printed, and in an increasing degreee. Sugar refineries, and distilleries of molasses, and various preparations of tobacco, employ many hands.

The manufactures of Pennsylvania have greatly increased within a few years, as well by master workmen and journeymen from abroad, as by the skill and industry of the natives. Some persons have begun to press oil from hickory nuts. A mill of Rumsay's (the improvement of Barker's) near Philadelphia, grinds, by water, flour, chocolate, snuff, hair powder, and mustard; shells chocolate nuts; presses and cuts tobacco for chewing and smoking; and bolts meal. The water works near the falls of Trenton, which grind grain, roll and slit iron, and pound plaster of Paris, exhibit great mechanism. Card manufactories are lately set up. The hand machines for carding and spinning cotton have been introduc-

ed and improved. Sir Richard Arkwright's famous water mill for spinning cotton yarn has been obtained; also the machinery to sliver, rove and spin flax and hemp into thread, fit for linen of 30 cuts to the pound; which will also serve for the roving and spinning combed wool into worsted yarn. Screws for paper mills are now cut from solid cast iron. Lanterns for lighthouses are made by Mr. Wheeler of Philadelphia; who also executes work for sugar mills in the West Indies: during the war he made cannon from wrought iron.

In the city and suburbs of Philadelphia, are 10 ropewalks, which manufacture about 800 tons of hemp annually—13 breweries, which are said to consume 50,000 bushels of barley yearly—6 sugar houses—7 hair powder manufactories in and about town—2 rum distilleries, and 1 rectifying distillery—3 card manufactories—2 shot manufactories. The other manufactories are, 15 for earthern ware—6 for chocolate—4 for mustard—3 for cut nails—and 1 for patent nails—1 for steel—1 for aqua fortis—1 for sal ammoniac and Glauber salts—1 for oil colours—11 for brushes—2 for buttons—1 for morocco leather, and 1 for parchment; besides gun makers, coppersmiths, type founders, ship builders, hatters, tin plate workers, coach makers, cabinet makers, and a variety of others. The public mint, at which the national money is coined, is in this city.

The great number of paper mills in the state enable the printers to carry on their business more extensively than is done in any other place in America. There are 41 printing offices in this city; 5 of which publish each a daily gazette; 2 others publish gazettes twice a week; one of these is in the French language; besides 4 weekly papers, one of which is in the German language. The other offices are employed in printing books, pamphlets, &c. The catalogue of books for sale in this city, contains upwards of 300 sets of Philadelphia editions, besides a greater variety of maps and charts than is to be found any where else in America.

The pleasure carriages within the city and liberties, according to enumeration, are as follows, viz, two wheeled carriages 553, light waggons 80, coaches 137, phaetons 22, chariots 35, and coachees 33; the whole amounting to 307 four wheeled carriages.

Commerce. The value of the exports from this state was in 1799, $12,431,967 and in 1810, $10,993,398. Of this last sum $4,751,634 were of domestic produce and $6,313,757 of foreign. The trade with the eastern and southern states is chiefly by barter. Wheat, flour, and bar iron are exported to Maine, New-Hampshire, and Massachusetts for whale oil, whale bone, spermaceti, seal skins, mackerel, cod fish, and salmon; to Rhode Island and Connecticut for cheese; to North-Carolina for tar, pitch, turpentine, and lumber; and to South-Carolina and Georgia for live oak, cedar, cotton, and rice. Virginia sends wheat and tobacco to be manufactured; also coal, lead, and peach brandy; and receives for them foreign merchandize. Hats, saddlery, shoes, chairs, carriages, hewn stones, cast iron utensils, wheel tire, spades, hocs, axes, tin ware, paper, books, and brushes are exported to a very large amount to all the southern states; and in return large quantities of

the skins of deer, otters, beavers, racoons, foxes, and muskrats are imported from their back country. The eastern shore of Maryland sends wheat and maize; the western kite foot tobacco. Delaware sends large quantities of wheat flour for exportation. New-Jersey chiefly supplies the market of Philadelphia, and furnishes rye meal, maize, lumber, and bar iron. The trade with New-York depends on the fluctuation of the market.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. SWAMPS. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS. CURIOSITIES.

Climate. THE climate of Pennsylvania is perceptibly more temperate than that of the New-England states. The winters are never so severe, and the summers are generally warmer. Snow lies on the ground but a short period in the winter, and sleighs are but little used. This is however generally a healthy country, and has but few peculiar diseases. In the western country, particularly in the neighborhood of Pittsburg, *goiters* are common. The fever and ague and bilious fevers are also frequent in summer.

Face of the Country. The counties of Bedford, Huntingdon, Mifflin, Cumberland, Franklin, Dauphin, and part of Northumberland, Berks, and Northampton, are mountainous; the mountains stretching in a N. E. and S. W. direction a little E. of the centre of the state. The rest of the country is generally level or uneven. The streams in this state have a great number of falls, suitable for every kind of mill works, and labor saving machines.

Soil and Agriculture. A great proportion of the state is good land; and no inconsiderable part excellent. The two richest tracts are, one on the south line, comprising York and Lancaster counties, and the valley of Franklin and Cumberland; and the other in the N. W. including the land between lake Erie and the sources of the eastern branches of the Allegany. Generally the soil is more fit for grain than grass. The borders of the streams and rivulets are good natural meadows; but the turf of other unimproved lands is greatly inferior in the quantity and quality of its grass to that of the eastern states. This is a serious inconvenience, and renders it necessary for the farmers to cultivate large quantities of clover and other artificial grasses. Wheat is the grain of far the most general cultivation. It flourishes admirably, and fears no enemy here but the Hessian fly, whose ravages however are not so fatal as in New-England. Maize is the grain of the next importance. Buck wheat yields a very considerable crop throughout the country. Rye, within the last ten years, has been very generally cultivated for the distilleries. The crop of barley is constantly increasing with the number of the breweries. That of oats is sufficient for

the demand. The Germans cultivate spelts for their horses. Hemp is now raised extensively in the western part of the state, and the crop is very rapidly increasing. Flax has a portion of ground on almost every farm. Potatoes yield a great crop; the Bermudian potatoe flourishes in a loose mould; turnips, parsnips, cabbages, carrots, peas, &c. are extensively raised in gardens and in the field. The horses of Pennsylvania are, as a breed, very large and strong; but the farmers substitute them too generally for oxen. Mules and asses are rare. The number of sheep is considerable and rapidly increasing. That of hogs exceeds the home consumption. They are fed in the woods most of the year, and their pork is very fine. In the southern, old settled counties, orchards are very abundant, and they are planting extensively in the new. Peaches are said not to flourish so well as formerly. Cherries and plums are plenty. Wine is made to some extent of the wild grape, and a large quantity of maple sugar is annually manufactured by the farmers.

Rivers. The Delaware is the eastern boundary. The Susquehannah and the Allegany run the greater part of their course in this state; the Ohio about 60 miles; the Monongahela partly in Virginia; the Tioga chiefly in New-York, and about 3 miles in Pennsylvania. All these have been described.

The Schuylkill, a branch of the Delaware, rises N. W. of the Kittatinny mountains, through which it breaks into a fine champagne country; and, taking a S. E. direction, nearly parallel with both the Delaware and the Susquehannah, empties opposite Mud island, 5 miles in a straight line, and 7 by the winding of the river, below Philadelphia. Its whole length is about 120 miles. It is far from being navigable in its natural state, and the artificial attempts to render it so, have not hitherto been very successful.

The Lehigh rises near Wilksbarre, and, taking a circuitous route, passes through the Blue mountain, and makes its way to the Delaware, at Easton, 75 miles from its source; of which distance it is navigable, for boats, 30 miles.

The Swetara and Conestoga both run S. W. about 40 or 45 miles and fall into the E. side of the Susquehannah. The former is boatable 15 miles.

The Juniata rises in the Allegany ridge. It runs first S. E. and afterwards nearly N; till near Huntingdon, it receives the Little Juniata from the N. W. Thence it winds through the various ranges of mountains, and, at length, empties into the Susquehannah about 15 miles above Harrisburg. Its whole length is about 180 miles.

The western branch of the Susquehannah heads near the sources of the Connemagh, a branch of the Allegany, and is the only river that breaks through all the mountains. Running N. E. about 90 miles, it receives the Sinemahoning from the N. W; one of whose branches has its rise near the sources of Toby creek, the other near those of the Allegany. After an eastern course of about 50 miles, it receives Pine creek, from the N; which heads near the Allegany, and runs upwards of 80 miles. Thus enlarged, it pro-

ceeds E. and S. about 70 miles, falling into the Susquehannah at Northumberland. Like the Juniata it flows chiefly through a mountainous country, and is a rapid violent stream. The other branches of the Susquehannah are the Conodogwinet and the Conewago.

The chief branches of the Allegany are French creek, which heads near lake Erie, and empties at Franklin; Toby's creek, which runs W. S. W. about 70 miles, and is boatable nearly to its source, where there is a short portage to the Sinemahoning; Sandy lick, a little below; and the Kiskemanitas, whose most distant source, Stoney creek, heads in the Allegany ridge near the waters of the Yohiogany, and running N. receives the Little Connemagh. The united stream takes the name of the Connemagh, and passing westward through the mountains receives Black lick from the N. E. and afterwards the Loyalhannon from the S. E. Hence, for 25 miles, it is called the Kiskemanitis. Its whole course is about 90 or 100 miles; and it falls into the Allegany 23 miles above Pittsburg. Big Beaver creek heads in the N. W. part of the state near the Conеaut, a river of lake Erie. It runs a little E. of S. and falls into the Ohio at Beavertown, 28 miles below Pittsburg, after a course of more than 100 miles.

The several branches of the Yohiogany river rise on the west side of the Allegany mountains. After running a short distance, they unite and form a large beautiful river, which, in passing some of the most western ridges of the mountains, precipitates itself over a level ledge of rocks, lying nearly at right angles to the course of the river. These falls, called the Ohiopyle falls, are about twenty feet in perpendicular height, and the river is perhaps eighty yards wide. For a considerable distance below the falls, the water is very rapid, and boils and foams vehemently, occasioning a considerable mist to rise from it, even at noon day, and in fair weather. The river at this place runs to the southwest, but presently winds round to the northwest, and, continuing this course for 30 or 40 miles, it loses its name by uniting with the Monongahela, which comes from the southward, and contains, perhaps, twice as much water. These united streams, shortly after their junction, mingle with the waters of the Allegany at Pittsburg, and together form the grand river Ohio.

Swamps. Great swamp lies between Northampton and Luzerne counties; and Buffalo swamp near the source of the west branch of the Susquehannah. These swamps are covered with beech and maple, and make good farm land.

Mountains. The mountains of Pennsylvania all belong to the great Allegany range. The principal ridges in this range, in Pennsylvania, are the Kittatinny, or Blue mountains, which pass north of Nazareth in Northampton county, and pursue a southwest course, across the Lehigh, through Dauphin county, just above Harrisburg, thence on the west side of the Susquehannah, through Cumberland and Franklin counties. Back of these, and nearly parallel with them, are Peters, Tuscarora, and Nescopek mountains, on the east of the Susquehannah; and on the west, Share-

mon's hills, Sideling hills, Ragged, Great Warrior, Evits, and Will's mountains; then the great Allegany ridge, which being the largest, gives its name to the whole range; west of this, are the Chesnut ridges. Between the Juniata and the west branch of the Susquehannah are Jacks, Tussys, Nittiny, and Bald Eagle mountains.

Botany. The various species of oak, form the bulk of the forests. Those of the walnut are far more frequent than in the eastern states. The sassafras, mulberry, and tuliptree, are common, and have their full size. The elm and the linden, or lime tree, are not so stately as farther north. The sugar maple is abundant beyond the mountains. The white pine and white cedar are found occasionally. Red cedars are not unfrequent on the high grounds. The *magnolia glauca* is found in the low grounds; and the *magnolia acuminata* grows very tall on the western mountains. Various species of wild grape are common in the forests.

Zoology. Useful quadrupeds, in the new districts, are, deer, in great numbers, beavers, otters, racoons, and martens. Buffaloes rarely cross the Ohio. Elks but seldom advance from the north. Panthers, wild cats, bears, foxes, and wolves, are not rare, at a distance back: the last do most mischief, especially in the winter; but the fur of all is valuable. In the thick settlements, rabbits and squirrels are frequent; also minks and musk rats in marshes; opossums and ground hogs are rare.

Wild turkeys, which formerly abounded, are now scarcely ever seen in the old settlements; but in the new, there are large flocks. Partridges are yet numerous, though the late hard winters have destroyed many. Pheasants are become dear. Grouse are found only in some districts. Great numbers of pigeons come from the north in the cold seasons. In spring and autumn, several kinds of ducks, and some wild geese, are found on the rivers. Pennsylvania has a great number of singing birds; many migrate to it from north and south, in certain seasons.

Trouts are common in the rivulets; in length, seldom above a foot. In the eastern rivers, the principal fish are rock, shad, and herring, which, in the spring, come up from the sea in great shoals. These are not found in the western waters, which are said to have their own valuable kinds, especially a species of catfish, weighing from 50 to 100 pounds. Yellow perch and pike are also in them much larger and more nnmerous.

Mineralogy. Iron ore is distributed in considerable quantities through the state. A valuable lead mine has been discovered on Perkiomen creek, near the Schuylkill. It is said to be extensive, and advantageously situated. The ore yields 70 per cent of pure lead, and a considerable quantity of silver. Copper has also been found. Various quarries of marble have been opened, and limestone is common. Millstones of a coarse grain, are hewn in Bucks county. Coal is found in great abundance on the Susquehannah; particularly, near Wyoming. At the head of the western branch, is an extensive bed, which stretches over the country southwestwardly, so as to be found in the greatest plenty about

Pittsburg. It is also found near the sources of the Lehigh and the Schuylkill.

Mineral Waters. Oil creek, in Allegany county, 100 miles above Pittsburg, issues from a remarkable spring, which boils like the waters of Hell Gate, near New-York. On the top of the water floats an oil similar to that called Barbadoes tar. Several gallons may be gathered in a day. It is found very serviceable in the rheumatism, in restoring weakness in the stomach, and in curing bruises, and sore breasts. When drank, the water of the spring operates as a gentle cathartic. It is gathered by the country people, and Indians, boiled and brought to market in bottles, and is deemed a most valuable family medicine.

Curiosities. About 10 miles W. of Reading, on the Harrisburg road, there is a spring 15 feet deep, and 30 in diameter, from which issues a large mill stream. It is supposed to be the outlet of a river which about 2 miles above, sinks into the earth; and is conveyed in a subterranean channel to this orifice. The water is clean and abounds with trout.

There is a remarkable grotto or cave on the east bank of Swetara river, about two miles above its confluence with the Susquehannah. Its aperture under a pretty high bank, is from 15 to 20 feet wide, and from 7 to 10 in height. You go down by a gradual descent, so low that the surface of the river is rather higher than the bottom of the cave, and in your progress pass through a number of passages and apartments of various dimensions, some low and narrow, others very high and spacious, vaulted by magnificent canopies, fretted with a variety of depending petrifactions, some of which by means of the constant accretion of petrifying matter, are formed into pillars. These appear as supports to the roof, which is of solid limestone, perhaps 20 feet thick. Thirty years ago there were ten such pillars, each six inches in diameter, and six feet high; all so ranged that the place they enclosed resembled a sanctuary in the Roman church. No royal throne ever exhibited more grandeur than this *lusus naturæ*. The resemblance of several monuments are found indented in the walls on the sides of the cave, which appear like the tombs of departed heroes. Suspended from the roof is "the bell," (which is nothing more than a stone projected in an unusual form) so-called from the sound it occasions when struck, which is similar to that of a bell. Some of the stalactites are of the color of candy, and others resemble loaf sugar; but their beauty is much defaced by the smoke of the torches, which are frequently employed in conducting the curious traveller through this gloomy recess. The water which exudes through the roof, runs down the declivity, and is both pleasant and wholesome to drink. There are several holes in the bottom of the cave, descending perpendicularly, perhaps, into an abyss below, which renders it dangerous to walk without a light. At the end of the cave is a pretty brook, which, after a short course, loses itself among the rocks. Beyond this brook is an outlet from the cave by a very narrow aperture. Through this the vapours continually pass outwards with a very strong current of air, and ascend, resembling, at night, the smoke of a furnace.

Part of these vapors and fogs appear, on ascending, to be condensed at the head of this great alembic, and the more volatile parts to be carried off through the aperture communicating with the exterior air before mentioned, by the force of the air in its passage.

There is another cave in Durham, in Bucks county, and another in Carlisle.

At Coxtown, 4 miles from Harrisburg, was lately found a mould for running musket balls, in sinking a well, 30 feet below the surface.

OHIO.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAME. DIVISIONS. ORIGINAL POPULATION. HISTORY. POPULATION. MILITIA. GOVERNMENT. CHIEF TOWNS. LITERATURE. INLAND NAVIGATION. COMMERCE.

Extent. THIS state lies between lat. 38 10 and 42° N. and between lon. 80 30 and 85 45 W. It is 200 miles long and as many broad, containing, exclusive of the waters of lakes Erie and Sandusky, 39,128 square miles, equal to 25,043,637 acres.

Boundaries. This state is bounded E. by Pennsylvania; S. by the Ohio river; W. by the Indiana territory, from which it is divided by a line drawn from the mouth of the Great Miami river due north, nearly to the parallel of 42° N. lat.; N. by Michigan territory and lake Erie, from the former of which it is divided by an east and west line, drawn through the southerly extreme of lake Michigan, and intersecting the territorial line in lake Erie.

Name. This state takes its name from the Ohio river, which forms its southern boundary.

Divisions. This state is divided into 36 counties and 320 townships:

Counties.	No. of towns.	Population in 1810.	Counties.	No. of towns.	Population in 1810.
Adams	9	9,434	Fairfield	15	11,361
Athens	4	2,791	Fayette	4	1,854
Belmont	11	11,097	Franklin	8	3,486
Butler	9	11,150	Gallia	12	4,181
Cayahoga	4	1,459	Geauga	8	2,917
Champaign	9	6,303	Guernsey	9	3,051
Clermont	8	9,965	Green	6	5,870
Clinton	3	2,674	Hamilton	11	15,258
Columbiana	17	10,878	Highland	7	5,766
Delaware	7	2,000	Jefferson	15	17,260

Counties.	No. of towns.	Population in 1810.	Counties.	No. of towns.	Population in 1810.
Knox	5	2,149	Ross	16	15,514
Licking	7	3,852	Scioto	9	3,399
Madison	6	1,603	Stark	7	2,734
Miami	6	3,941	Trumbull	19	8,671
Montgomery	7	7,722	Tuscarawa	8	3,045
Muskingum	11	10,036	Warren	5	9,925
Pickaway	10	7,124	Washington	12	5,991
Portage	9	2,995			
Preble	7	3,304	Total 36	320	230,760

For judicial purposes the state is divided into three circuits.

Original Population. From the ancient fortifications and other antiquities, which are found in this state, as well as in other parts of this western country, it would seem natural to conclude, that it was at some distant period inhabited by a race of men farther advanced in the arts of civilized life, than the present race of Indians. But who they were, whence they came, and whither they went, and who were their victors, we know not. Previous to the settlement by the whites several Indian tribes resided and hunted here. The Delawares, between the Ohio and lake Erie, the Shawanees, on the Scioto, the Wiyondotts, Mohickons, Coghnawagas, near the Sandusky, and the Twightwees, on the river Miami. At the close of the revolutionary war, these tribes together were reckoned to contain 1450 fighting men.*

History. The original charter of Connecticut embraced a large section of this state. In 1786, Connecticut ceded to the United States all her charter claims west of Pennsylvania, reserving only a tract of the width of the state of Connecticut, and 120 miles in length, containing nearly 4 millions of acres.

In 1787 the settlement of this territory was begun by the Ohio and other companies. The same year, by an ordinance of congress, it was erected (together with the present territories of Michigan, Illinois, and Indiana) into one district, for the purposes of a temporary government. By the same ordinance it was provided that congress should appoint a governor and secretary of the new district.

For several years previous to 1795, an unhappy Indian war had checked the settlement of this territory. In August, of that year, however, a treaty was held with the hostile tribes at Grenville, and their differences amicably adjusted. At this treaty, by the French in 1769, and by individuals or public bodies at several intervening periods, the Indian title was extinguished to nearly the whole of the territory now comprised in this state.

Early in the year 1802 this territory was detached from the remaining part of the northwest territory, and erected into a state; and, shortly after, their present constitution was framed and adopted. Congress reserved the right of annexing to this state the Michigan territory, should it hereafter be thought expedient.

* Hutchins.

Population. The number of inhabitants in this state in the year 1800 was 42,179, in 1803, 76,000, in 1810, 230,760. The items of this enumeration were as follow :

	males.	females.	total.
Under 16 years of age	64,742	61,061	125,803
Between 16 and 45	42,950	39,426	82,376
45 and upwards	11,965	8,717	20,682
Total	119,657	109,204	228,861

The blacks, who are not included in this table, amount to 1899.

The state is entitled to 6 representatives in congress.

Militia. In the year 1808 the militia amounted to 15,351 men. The number of males between 16 and 45, according to the census of 1810, was 42,950.

Government. The legislative authority of this state is vested in a general assembly, consisting of a senate, to be chosen biennially, and a house of representatives, to be chosen annually, both by the people ; the representatives to be proportioned by law from time to time, to the population. The senators are to be divided into two classes by lot, the seats of the first class to be vacated at the expiration of one year ; of the second at the expiration of the second year, so that one half are to be annually chosen. The house of representatives have the power of instituting impeachments, which are to be tried by the senate.

The supreme executive power is vested in a governor, to be chosen biennially, by the people. He is eligible only 6 years in any term of 8 years.

The judiciary power is vested in a supreme court, in courts of common pleas in each county, and justices of the peace. The judges of the supreme and county courts are to be appointed by a joint ballot of the two houses of assembly, to hold their offices for 7 years.

"In all elections, all white males, above the age of 21 years, having resided in the state one year next preceding the election, and who have paid or are charged with a state or county tax, shall enjoy the right of an elector," in the district where he actually resides at the time of the elections.

The constitution closes with a declaration of rights, consisting of 28 articles.

Chief Towns. MARIETTA, the chief town in Washington county, is a handsome healthy town, standing partly on a high bank on the west side of the Ohio river, just above the mouth of the Muskingum. At some seasons the rise of the water has inundated the lower part of the town. It is commodiously laid out, with spacious streets intersecting each other at right angles, into 1000 house lots of 90 feet in front by 180, and open squares, reserved for convenience and ornament. It has a gaol, courthouse, and academy ; which last, some years since, was the only place of public worship. Within the limits of this town, are some of those ancient and curious forts hereafter described. The scenery in view of the town is

richly diversified, uniting the beautiful with the magnificent. The number of inhabitants is 1403. Lat. 39 24 21 N.

CHILICOTHE, the chief town of Ross county, and the seat of government in the state, is situated on the west side of Scioto river, above 100 miles from its mouth, and a few miles above its junction with Paint creek. The town is laid off on an extensive plain, on the same plan with Philadelphia, which city it resembles in its natural situation, as the town extends entirely across the plain from the Scioto to Paint creek. It contains a gaol, a state house, and 1369 inhabitants. The surrounding country is charming, and the land exceedingly fertile. There is here a Presbyterian church, and a flourishing congregation. In the midst of the town is an Indian grave, whose perpendicular height is 40 or 50 feet. The Scioto is boatable 40 miles above Chilicothe.

CINCINNATI stands on the north bank of the Ohio, opposite the mouth of Licking river, $2\frac{1}{2}$ miles southwest of fort Washington, and about 8 miles westerly of Columbia. Both these towns lie between Great and Little Miami rivers. Cincinnati contains 2540 inhabitants, and is 82 miles N. by E. of Frankfort; 90 N. W. of Lexington, and 779 W. by S. of Philadelphia. In this town is fort Washington, which commences the chain of forts extending to the westward. Printing is introduced here and a weekly paper issued. N. lat. 39 6, W. long. 85 44.

GALLIOPOLIS is situated on a bend of the Ohio river, and nearly opposite to the mouth of the Great Kanhawa. It contains 448 inhabitants. This town was settled and named by a colony of French emigrants, numbers of whom in 1796, fell victims to the yellow fever, generated by the unusual filthiness of the place.* This, with other discouraging events, dispersed the colony and part of them went to Louisiana, and a part have settled 24 miles below this place, opposite Sandy creek. This town is 300 miles S. W. of Pittsburgh.

ATHENS, the seat of the university of this state, is delightfully situated on the Hockhocking river, 40 miles from its entrance into the Ohio, and commands a beautiful and extensive prospect of the river and surrounding country. It has 840 inhabitants.

XENIA, the seat of justice for the county of Greene, lies on the Little Miami, 6 miles from the medicinal springs. It has 1429 inhabitants.

Columbia and Springfield, both in Hamilton county, have each 2050 inhabitants. Warren, in Jefferson county, has 2122.

Literature. Out of the lands purchased by this state from the Indians, 580,159 acres have been appropriated toward the endowment and support of a university, an academy, and schools, and for the maintenance of public worship.

An act establishing a university passed the legislature of this state, December 12, 1801. It is named the "Ohio University," and is fixed at Athens on the Hockhocking 40 miles by land, from the Ohio. Its funds consist of lands which are thought to be superior in point of pleasantness and fertility to any in the state. The cor-

* Ellicot.

poration to consist of the governor of the state for the time being, the president, and not more than 15, nor less than 10 trustees.

Inland Navigation. The communications between this country and the sea will be principally in the four following directions.

1. The route through the Scioto and Muskingum to lake Erie and so to the river Hudson.

2. The passage up the Ohio and Monongahela to the portage which leads to the navigable waters of the Patowmac. This portage is thirty miles, and will probably be rendered much less by the execution of the plans now on foot for opening the navigation of those waters.

3. The Great Kanhawa, which falls into the Ohio from the Virginia shore, between the Hockhocking and the Scioto, opens an extensive navigation from the southeast, and leaves but 18 miles portage from the navigable waters of James river, in Virginia. This communication, for the country between Muskingum and Scioto, will probably be more used than any other, for the exportation of manufactures, and other light and valuable articles; and especially, for the importation of foreign commodities, which may be brought from the Chesapeak to the Ohio much cheaper than they are now carried from Philadelphia to Carlisle, and the other thick settled back counties in Pennsylvania.

4. But the current down the Ohio and Missisippi, for heavy articles that suit the Florida and West-India market, such as corn, flour, beef, lumber, &c. may probably at a future day be more frequently loaded than any streams on earth. The distance from the Scioto to the Missisippi is 800 miles; from thence to the sea is 900. This whole course is easily run in 15 days; and the passage up those rivers is not so difficult as has been usually represented. It is found, by late experiments, that sails are used to great advantage against the current of the Ohio; and it is worthy of observation, that steam boats are found to do great service in all our extensive river navigation.

The rivers of Ohio and the neighboring states connect prodigious extensions of territory, and from the rapid settlements of the western parts of Canada, the borders of lake Erie, and the state of Kentucky, and from the newly projected grand canal to connect the western waters with those of the Hudson and the Atlantic, we may anticipate an immense intercourse between them. The lands on the border of these streams are from this circumstance, as well as their natural fertility, rendered highly valuable. The flour, corn, flax, hemp, &c. raised for exportation in that great country between the lakes Huron and Ontario, will find an outlet through lake Erie, and these rivers, or down the Missisippi, or through the proposed grand canal to New-York. The Ohio merchants can afford to give a higher price than those of Quebec for these commodities, as they may be transported by the former to Florida, and the West-India islands with much less expense and risk, than by the latter, while the expense from the place of growth, to the Ohio, will not be one fourth of what it would be to Quebec.

Commerce. The exports from this country consist of flour, corn,

hemp, flax, cotton, beef, pork, smoked hams, of venison, whiskey, peach brandy, oak staves, lumber, &c. raw and tanned hides, and peltry.

The building of ships to carry the produce of this country to market is a business lately commenced, and is increasing with the growth of this country. In 1802, and since, a number of vessels of from 115 to 204 tons, have been built at Marietta, and descended the river to New-Orleans, and thence proceeded to the West-Indies. This promises in future to be an increasing and lucrative branch of business in this thriving country.

The amount of the value of exports is not ascertained. From the whole of the territory of the United States, (embracing as I suppose the state of Ohio, and Indiana territory, and exclusive of fort Massac, Detroit, and Michilimakinac) there were exported in 1804, to the value of 1,959,423 dollars. *

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL AND PRODUCTIONS. RIVERS. ANIMALS. MINERALOGY. ANTIQUITIES AND CURIOSITIES.

Face of the Country. A GREAT part of this country is agreeably uneven, and cannot be called mountainous, nor even hilly. In the upper or northern parts of the state, however, the land is hilly, and in many places too rough to admit of much cultivation. In some parts, also, in the country dividing the waters of the Ohio from the lakes, there are tracts extending several miles so flat, that the water stands till midsummer, rendering it waste land.

The hills and mountains on the east side of the Ohio generally increase in magnitude till they unite with the great ridge, commonly called the Allegany; but on the west side they decrease till the country becomes almost a dead level.

Soil and Productions. No part of the federal territory unites more advantages in point of health, fertility, variety of productions, and foreign intercourse, than that tract which stretches from the Muskingum to the Scioto and Great Miami rivers.

The flat or bottom lands on the Ohio are remarkably fertile; in some places however their extent is small. A small proportion of the hills and mountains are unfit for agricultural purposes, being either too steep, or faced with rocks.

The country produces all the necessaries of life in abundance, and far beyond the consumption of the inhabitants. The residue, with many other articles, such as hemp, cordage, hardware, some glass, whiskey, apples, cider, and salted provisions, are carried down the river to New-Orleans, where they find a ready market.

The lands on the various streams which fall into the Ohio, are

* Report of Secretary of the Treasury.

now accurately known, and may be described with confidence. They are interspersed with all the variety of soil which conduces to pleasantness of situation. Large level bottoms, or natural meadows, from 20 to 50 miles in circuit, are every where to be found bordering the rivers, and variegating the country in the interior parts. It is said that in many of these bottoms a man may clear an acre a day, fit for planting with Indian corn, there being no underwood, and the trees growing sparsely, very high and large, needing nothing but girdling. Very little waste land is to be found in any part of this tract of country. The hills are of a deep, rich soil, covered with a heavy growth of timber, and well adapted to the production of wheat, rye, indigo, tobacco, &c.

Rivers. The Ohio, which nearly half surrounds this state,* has already been described. To this I here add, that a canal, collateral with the rapids in this river, is seriously contemplated, and surveys and estimates for the purpose have already been made.

Muskingum, (which signifies *elk's eye*) is a gentle river, confined by banks so high as to prevent its overflowing. For 60 miles from its mouth, the land on each side is hilly. Beyond that distance, it is more level and fertile. The river has sufficient water to carry 12 grist mills. It is 150 yards wide at its confluence with the Ohio, 180 miles below Pittsburg, and navigable by large batteaux and barges to the Three Legs; and by small ones, to the lake at its head. From thence, by a portage of $7\frac{1}{2}$ miles, a communication is opened to lake Erie, through the Cayahoga, which is a stream of great utility, navigable the whole length, without any obstructions from falls. From lake Erie, the avenue is well known to the Hudson, in the state of New-York.

The Hockhocking resembles the Muskingum, though somewhat inferior in size. Hockhocking, in the Delaware tongue, signifies *bow river*, so called because it runs crooked. It is about 12 rods wide; 65 miles from its mouth, there is a fall of 10 feet. Eight miles above the falls it divides into three branches; the middle one has meadows a mile wide, 30 miles in length, extending to the head of the river. Here is a fine country. It is navigable for large boats about 70 miles, and for small ones much further.

The Scioto opens an extensive navigation. It is passable for large barges for 200 miles, with a portage of only 4 miles to the Sandusky, a good navigable stream that falls into lake Erie. Through the Sandusky and Scioto lies the most common pass from Canada to the Ohio and Missisippi; one of the most extensive and useful communications that are to be found in any country. The stream of Scioto is gentle, and no where broken by falls. At some places in the spring of the year it overflows its banks, providing for large natural rice plantations. Salt springs† and coal mines abound in the country adjoining this river. But the people on its banks are greatly afflicted with the fever and ague.

* The Indians call the Allegany branch, as well as the main river, Ohio, and appear to know it by no other name. *Elliott.*

† These salt springs and 23,040 acres of land, surrounding them, belong to the state. *Harris.*

The Little Miami is too small for batteaux navigation. Its banks are good land and so high as to prevent, in common, the overflowing of the water. Mills are erected on its waters.

The Great Miami, Assereniet river, or Rocky river, has a very stony channel, and a swift stream, but no falls. It is formed of several large branches, which are passable for boats a great distance. One branch comes from the west, and rises in the Wabash country; another rises near the head waters of Miami river, which runs into lake Erie; and a portage of 6 or 8 miles divides another branch from Sandusky river. It also interlocks with the Scioto.

The other rivers in this state run northerly into lake Erie; (except Beaver creek, which runs S. E. into the Ohio;) these are

Grand river, whose mouth, is about 70 yards wide. For 3 miles it has depth of water for vessels of any size, except on the bar at its mouth, which has only 8 feet water. At particular seasons it is boatable nearly to its source.

Cayahoga, or Cayuga, sometimes called the Great river, empties in at the south bank of lake Erie, 40 miles eastward of the mouth of Huron; having an Indian town of the same name on its bank. It is navigable for boats; and its mouth is wide, and deep enough to receive large sloops from the lake. Near this are the celebrated rocks which project over the lake. They are several miles in length and rise 40 or 50 feet perpendicular out of the water. Some parts of them consist of several strata of different colors, lying in a horizontal direction; and so exactly parallel, that they resemble the work of art. The view from the land is grand, but the water presents the most magnificent prospect of this sublime work of nature; it is attended, however, with great danger; for if the least storm arises, the force of the surf is such, that no vessel can escape being dashed to pieces against the rocks. Col. Broadshed suffered shipwreck here in the late war, and lost a number of his men, when a strong wind arose, so that the last canoe narrowly escaped. The heathen Indians, when they pass this impending danger, offer a sacrifice of tobacco to the water. Part of the boundary line between the United States and the Indians begins at the mouth of Cayahoga, and runs up the same to the portage between that and the Tuscarawa branch of the Muskingum.

Sandusky river rises near a branch of the Great Miami, between which is a portage of 9 miles. It pursues a N. E. course, and empties into the S. W. corner of Sandusky lake. The Indians, by the treaty of Greenville, August 3, 1795, have ceded to the United States a tract of land 6 miles square upon Sandusky lake, where a fort formerly stood, and 2 miles square at the lower rapids of Sandusky river. It is a considerable river, with level land on its bank, its stream gentle all the way to its mouth, where it is large enough to receive sloops.

Miami of the lakes, falls into lake Erie, at the S. W. corner of the lake. A southern branch of this river communicates with the Great Miami, by a portage of 5 miles. The northern branch flows from a pond, and communicates with St. Joseph's river, a water of Michigan, by a portage of 15 miles. This river is called by some writers Mawmee, Omee, and Manmic.

Besides these there are several smaller streams of no great consequence.

Springs of excellent water abound in every part of this territory; and small and large streams for mills and other purposes, are interspersed. But there is but little fall in the mill streams, and they fail in dry seasons. Good mill seats are scarce.

Animals. No country was originally better stocked with wild game of every kind than this. Innumerable herds of deer and wild cattle were sheltered in the groves, and fed in the extensive bottoms that here abound; an unquestionable proof of the great fertility of the soil. Turkies, geese, ducks, swans, teal, pheasants, partridges, &c. were a few years since, from observation, believed to be in greater plenty here, than the tame poultry are in any part of the old settlements in America. But on the approach of settlers, buffaloes disappear; geese and swans are now seldom killed; ducks are not plenty. Bears, deer, and turkies, are now the principal game. At the falls of Ohio, geese and swans still are plenty.

The rivers are well stored with fish of various kinds, and many of them of an excellent quality. They are generally large, though of different sizes: the cat fish, which is the largest, and of a delicious flavour, weighs from 6 to 90 and even 100 pounds. Twenty miles from the mouth of the Muskingum has been found in the river a large tooth, 4 inches wide and 11 long. A remarkably large bone has been found near the same place.

Botany. The prevailing growth of timber and the more useful trees are maple or sugar tree, sycamore,* black and white mulberry, black and white walnut, butternut, chesnut; white, black, Spanish, and chesnut oaks, hiccory, cherry, buck wood, or horse chesnut; honey locust, elm, cucumber tree, gum tree, iron wood, ash, aspen, sassafras, crab apple tree, paupaw or custard apple, a variety of plum trees, nine bark spice, and leather wood bushes. General Parsons measured a black walnut tree, near the Muskingum, whose circumference at five feet from the ground was 22 feet.

White and black oak and chesnut, with most of the above mentioned timbers, grow large and plenty upon the high grounds. Both the high and low lands produce vast quantities of natural grapes of various kinds, of which the settlers universally might make a sufficiency for their own consumption of rich red wine. Cotton is said to be the natural production of this country, and to grow in great perfection. Hops also grow spontaneously.

The sugar maple is the most valuable tree, for an inland country. Any number of inhabitants may be forever supplied with a sufficiency of sugar, by preserving a few trees for the use of each family. A tree will yield on an average about four pounds of sugar a year, and the labor is very trifling. The sap is extracted in the months of February and March, and granulated, by the simple operation of boiling, to a sugar equal in flavor and whiteness to the best Muscovado.

Mineralogy. On the banks of the Hockhocking are found inex-

* One of these, near Marietta, measures 60 feet in circumference, and, being hollow, will contain 18 or 20 men. *Harris.*

haustible quarries of freestone and beds of iron ore. Beds of white and blue clay suitable for the manufacture of glass, crockery, and earthern wares, have also been found here in some few instances. Red bole and many other useful fossils have been observed upon the branches of the Hockhocking. Mines of pit coal are inexhaustible from Pittsburgh many miles down the river, and in other parts of the state. On the banks of the Ohio the strata of stone are horizontally disposed. There are valuable salt springs, on the Scioto river, also near the Muskingum, and on the military tract, which are the property of the state.

Antiquities and Curiosities. The number of old forts found in the western country are the admiration of the curious, and matter of much speculation. They are mostly of an oblong form, situated on strong, well chosen ground, and contiguous to water. When, by whom, and for what purpose they were thrown up, is uncertain. They are undoubtedly very ancient, as there is not the least visible difference in the age or size of the timber growing on or within these forts, and that which grows without; and the oldest natives have lost all tradition respecting them. Dr. Cutler has accurately examined the trees on the forts at Marietta, and thinks from appearances they are the second growth, and that the works must have been built upwards of 1000 years. They must have been the efforts of a people much more devoted to labor than the present race of Indians, and it is difficult to conceive how they could have been constructed without the use of iron tools. At a convenient distance from these always stands a small mound of earth thrown up in the form of a pyramid, which seems in some measure proportioned to the size of its adjacent fortification. On examination they have been found to contain a chalky substance, supposed to be bones, and of the human kind. Other works have been since discovered 90 miles from Marietta, on one of the western branches of the Muskingum, extending nearly 2 miles, the ramparts of which are now in some places more than 18 feet in perpendicular height.

Under this head we may also mention the extensive meadows, or as the French call them, *Prairies*, which answer to what in the southern states, are called *savannas*. They are a rich plain, without trees, and covered with grass. Some of these, are 30 or 40 miles in extent. In passing them, as far as the eye can reach, there is not a tree to be seen; but there is plenty of deer, wild cattle, bears, and wolves, and innumerable flocks of turkies. In clearing out a spring near some ancient ruins, a copper coin has been found on the bank of the little Miami, not far from its entrance into the Ohio, four feet below the surface of the earth. From a *fac simile* it appears that the characters on the coin are the *Old Persian*. In digging a well in Cincinnati, the stump of a tree was found in a sound state 90 feet below the surface, and at 94 feet another which had evident marks of the axe, and on its top there appeared as if some *iron* tool had been consumed by rust.

MICHIGAN TERRITORY.*

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT. DIVISIONS. ORIGINAL POPULATION. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. MANNERS AND CUSTOMS. TOWNS. INLAND NAVIGATION. MANUFACTURES. COMMERCE.

Boundaries and Extent. THIS territory is bounded S. by the state of Ohio and the Indiana territory, from which it is separated by a line drawn due east from the southwardly bend of lake Michigan, until it intersects lake Erie, *or* Detroit river; the boundary not being yet precisely ascertained; W. by a line drawn from said southwardly bend through the middle of lake Michigan to its most northern extremity,† which separates it from the Illinois territory, from thence due north to the treaty line in the middle of lake Superior; N. and E. it is bounded by Upper Canada, from which it is separated by a small part of lake Superior, St. Mary's river, Huron lake and river, lake St. Clair, and Detroit river.‡ The greatest length of the territory, from S. E. to N. W. is 500 miles, from N. E. to S. W. it is 300. The number of square miles, both of land and water, is estimated at 150,000.

Divisions. The territory is at present divided into four districts. In the south is the district of Erie; next lies the district of Detroit; next that of Huron; and in the north, the district of Michilimakinac.

Original Population. The Huron tribe of Indians were the aborigines of this country. They were anciently very numerous and powerful, and were extended over Michigan, and the peninsula between lakes Michigan and Superior. The missionaries of the Jesuits, as early as 1648, penetrated among them; and a few years after, there was a chapel built at the falls of St. Mary's and another on the island of St. Joseph. The great body of the tribe were converted by these missionaries to the profession of Christianity. The Six Nations however penetrated into the country about 20 years afterwards, and massacred or dispersed the nation of Hurons, against whom they had long entertained an implacable hatred.

The names of the Indian tribes within this territory, at the close

*The author is indebted to his excellency governor HULL for the information contained in the following account of this territory.

†It is not yet ascertained whether the most northern extremity of lake Michigan is in Green bay, or an intermediate point between Green bay and the straits of Michilimakinac.

‡It is uncertain whether the southern boundary will terminate on Detroit river or on lake Erie. If the last should prove to be the case, that lake of course should be mentioned as the S. E. boundary of this territory.

of the American war, with the number of warriors in each, and the places where they dwelt, according to Hutchins, follow.

	No. of each.	Dwelling grounds.
Wiyondotts	250	Near fort Detroit
Putawatimes	150	
Chepawas	600	On Saguinam bay, a part of lake Huron
Ottawas		
Kickapoos	400	Near the entrance of lake Superior
Chepawas	550	Near bay Puan, a part of lake Michigan
Mynomanics		
Saukeys		
Putawatimes	200	Near fort St. Joseph
Ottawas	150	
Ottawas	200	On the east side of lake Michigan
Chepawas	1000	On lake Superior and its islands
Total	3500	

History. In 1667 Lewis XIV. sent a party of soldiers to this territory to protect the French fur traders. The soldiers, between that time and 1683, built a fort at Detroit, and another at Michilimakinac, and soon extended their commerce west of lake Michigan to the Indians on the Mississippi. The Iroquois, however, steadily opposed their progress. The French government neglected the settlements, and it never flourished as a colony. The war of 1756 dispossessed the French of all their North-American possessions; and, among the rest, of this territory. It remained in a neglected state in the hands of the British, till the peace of 1783 gave it over to the United States, and a governor was appointed in July, 1787, for all the territory N. W. of the Ohio. In 1796 the fort of Detroit was ceded by the English to the United States, agreeably to treaty; and this fine peninsula was formed into a county, called the county of Wayne.

In 1805, it received the name of the Michigan territory, was formed into a distinct government, and a governor appointed over it. The country is improving, and when the lands are put on sale, it is thought the population will rapidly increase.

Religion. The greater part of the inhabitants of this country are Catholics. The Protestants as yet have no settled minister, though they are very desirous of getting one. The missionaries of the Methodists, who have visited this country for some years back, have made many converts among the lower orders of people.

Government. The legislative power is vested in a governor and a supreme court, composed of three judges, all appointed by the president of the United States. The executive power is vested in the governor; and the judicial in the three judges, and such civil magistrates in the various districts as the governor shall appoint. There are at present a judge of probate in each district; and justices of the peace, who hold jurisdiction of *personal actions* in cases where the damages do not exceed $100. The supreme court has original jurisdiction in all other cases. The ministerial officers are a marshal for the territory, and a deputy marshal for each district.

Population. The census of 1810 was the first enumeration ever made of the inhabitants of the territory. The result of that was as follows:

Erie district	1,340
Detroit do.	2,227
Huron do.	580
Michilimakinac do.	615
	4,762

Of these 120 were free blacks, and 24 slaves.

Besides these there were about 150 persons employed in the Indian fur trade.

Militia. The militia consists of two regiments, each containing 8 companies; a legionary corps, consisting of four companies, one of cavalry, one of infantry, one of artillery, and one of riflemen; a battalion consisting of four companies of infantry; and a corps at Michilimakinac of two companies. The officers are appointed by the governor, and hold their offices during pleasure. A garrison of the United States at Detroit contains 129 effective men, and 37 women and children.

Manners and Customs. The late immigrants have all the common characteristics of new settlers. The descendants of the original French settlers employed in the fur trade, are sunk in a degraded and miserable state, occasioned by the nature of their employment, and associating with Indians.

Towns. DETROIT stands on Detroit river 18 miles N. of lake Erie, and 10 S. of lake St. Clair. The old town was wholly destroyed by fire in 1805. The new town is well laid out; the streets cross each other at right angles, and the situation is pleasant. It contained in 1810, including the garrison, 770 inhabitants, and 80 dwelling houses. The fort is of an oblong figure, built with stockades, and completely commands the garrison.

Inland Navigation. Three of the largest lakes border on this territory, and it is bounded on two sides, and one end, wholly by navigable waters. When the western wilds shall have become extensively peopled, this will probably be a rich, powerful, and highly commercial state. There is no inland tract on the continent whose natural advantages for trade can be compared with those of Michigan.

Manufactures. The following is a list of the manufactures in this territory in 1810:

Sides of leather	2,720	Pounds of candles	6,500
Saddles	60	Yards of woollen cloth	2,405
Hats	600	Yards of flax stuffs	1,195
Gallons of whiskey	19,400	Yards of hemp mixed	20
Gallons of brandy	1,000	Barrels of cider	1,500
Pounds of soap	37,000		

Commerce. Detroit and Michilimakinac are both ports of entry in this territory. The exports from the former, in 1810, amounted to $3,615, of which only $44 were of foreign produce. No returns

were received from the port of Michilimakinac. The state of Ohio furnishes this country with beef, pork, whiskey, cheese, and butter.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. BAYS. BOTANY. ZOOLOGY. ISLANDS.

Climate. THE climate is cold and healthy. Winter sets in about the middle of November, and lasts till the middle of March, without much variation. Very little snow falls; but the ice on the rivers and borders of the lakes, is always good for travelling, through the winter, and greatly facilitates the communication from place to place. The chief amusements of the people are dancing, and riding in carioles on the ice. The fever and ague and goiters are the common diseases of the territory.

Face of the Country. The general face of the country is flat. Nothing like a mountain is known. The eastern shore of lake Michigan has a range of highlands of considerable extent. It commences about 100 miles S. of Michilimakinac, and reaches southward upwards of 50 miles. They are mere sand hills fronting perpendicularly on the lake, and are some of them 300 feet high.

Soil and Agriculture. The soil is generally rich. A narrow strip on the western shore of lake Huron, from half a mile to a mile in width, has generally an indifferent soil. Back of this the lands have a very fine rich soil. It is estimated that upwards of 20,000,000 acres of this territory are excellent. Of these the Indian title to 8,000,000 is extinguished, of which 200,000 have been purchased by, and are secured to, individuals. The remainder belongs to the United States. The agricultural productions, in 1810, were 20,000 bushels of apples, 10,000 of maize, 12,000 of wheat, 8000 of oats, 100 of barley, 1308 of buckwheat, 12,540 of potatoes, 3024 of turnips, 1000 of peas, and 1500 barrels of cider.

Rivers. St. Mary's river, Huron or St. Clair river, and Detroit river, flow on the northern and eastern borders of the territory.

The St. Mary's is the outlet of lake Superior. At the distance of 22 miles from that lake are the straits and falls of St. Mary. Here the river is less than a mile wide, and falls, in $\frac{3}{4}$ of a mile, 25 feet. It is very rapid, and, being filled with large rocks, its waters are in a continual foam. Boats can pass down safely in the centre of the falls, but their common passage is along the shore. Below the falls, the river widens, and is in some places 10, in others 20, miles wide. It is filled with beautiful and fertile islands. Its length is nearly 70 miles. About 9 miles above the entrance of the river into lake Huron, is the southern point of the island of St. Joseph, an island 120 miles in circumference, belonging to the English, on which a small stockade is erected, and a company stationed. There is a good ship channel on both sides of it, and the river is

navigable for ships of any size to the falls. Here, on the American bank, is a small settlement of 20 houses; and, on the other, the northwest company have a very extensive establishment.

St. Clair river is the outlet of lake Huron, and runs nearly S. 40 miles. It is generally $\frac{3}{4}$ of a mile wide. The land along the shore is low. It is navigable for the largest vessels, except at its discharge into lake St. Clair, where there is a bar of sand with $6\frac{1}{2}$ feet of water.

Detroit river is 28 miles long, and runs in a S. W. direction 12 miles, and thence due S. 15 to lake Erie. It is navigable for the largest ships, and is generally from a mile to a mile and a half, and in some places three miles, broad.

Huron river, rises in the country west of lake St. Clair, and running eastwardly 60 or 70 miles, falls into that lake 30 miles N. from Detroit. It is navigable only for boats. The town of Gaudenhutten is on this river, planted by the Moravian brethren.

Saganau river is 30 miles long, empties into the bottom of Saganau bay, and is navigable only for boats.

The river Rouge rises in the country W. of Detroit, and, running eastwardly 60 miles, falls into Detroit river, 6 miles below the town. It is generally 100 feet wide. The largest vessels of the lake find a safe and convenient winter harbor 5 miles up this river. It is navigable 50 or 60 miles for boats.

The river Raison runs in a S. E. direction about 70 miles, and falls into lake Erie 15 miles from Detroit river.

The river Huron of Erie, rises near the source of the St. Joseph and after a course of 100 miles S. E. empties into lake Erie.

The river St. Joseph is extremely crooked, and, winding westward more than 200 miles, falls into lake Michigan near its southern extremity. It is navigable for boats almost the whole distance, but not at all for large vessels. Several other large rivers fall into the same lake from the east. It is uncertain whether the Miami of the lakes belongs to Ohio or Michigan.

Lakes. More than half of Michigan, half of Huron and St. Clair, a part of Superior, and probably a part of Erie, belong to this territory.

Bays. Saganau bay sets up in a S. W. direction, from the western side of lake Huron. It is 60 miles long and 30 broad at its mouth, which is 110 miles from Detroit. It is navigable for large vessels. Thunder bay lies N. of this. It is small and is only remarkable for the very frequent thunder storms prevalent there in the warm season. It is not yet ascertained whether Miami bay is in this territory.

Botany. The forest trees are oaks of every variety, black walnut, hickory, white and sugar maple, beech, white and swamp ash, elm, whitewood, sycamore, cedar, aspen, black poplar, butternut, pines of every variety, prickly ash, and white thorn. The wild fruits are cherries, plums, blackberries, strawberries, whortleberries, and cranberries. The cultivated fruits are peaches, pears, plums, nectarines, apples, cherries, currants, strawberries, grapes, and melons. The wild flowers of the country are beautiful and are of many varieties; likewise the vines and shrubbery.

Zoology. The wild beasts are the beaver, otter, martin, raccon, muskrat, fox, bear, rabbit, opossum, squirrel, black squirrel, and deer. The only tame beasts are horses, cattle, and sheep. The Canadian horses are small, and those brought into the country rarely live but a few years.

The birds are the snipe, woodcock, plover bittern, crane, canvas-back-duck, duck and mallard, wood duck, teel, swan, wild goose, wild turkey, partridge, grouse, quail, pigeon, robin, blackbird, woodpecker, lark, bluebird, humming bird, jay, snowbird, bat, crow, raven hawk, and bald eagle.

The fish of the lakes and rivers are white fish, mackinac trout, weighing from 18 to 60 pounds, muskinungen, black, white, and rock bass, sturgeon, pickerel, perch, common trout, weighing from 4 to 5 pounds, suckers, pike, and herring.

Bees abound in the woods. The Indians make great use of their honey. They are smaller than the domesticated bee, and their honey is inferior.

Islands. The island Michilimakinac lies between Michigan and Huron, and is 7 miles in circumference. The ground on which the fort stands is 150 feet above the level of the lake, and 100 yards from the shore. The fort is neatly built, and exhibits a beautiful appearance from the water. The village is on the shore at the right of the fort, and consists of about 30 houses. The harbor is deep and safe. On the N. E. side of the island, near the shore, and 80 feet above the lake, is an arched rock. The arch is 20 feet in diameter, at the top, and 30 at the base. Near the centre of the island on a plain stands an isolated conical rock, in the form of a sugar loaf, 50 feet in height. It is perforated in various places, and the holes are filled with human bones. The Skull-rock in another part of the island exhibits the same appearances. The island is one mass of limestone, and the soil is very rich. The climate is cold but healthy. The winter lasts for 5 months with unabated rigor. This island is still a place of rendezvous for the N. W. traders, their clerks and servants. They generally assemble here in June and July, often to the number of 800. There are numerous other islands in the lakes and rivers.

INDIANA TERRITORY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. ORIGINAL POPULATION. HISTORY. POPULATION. CHIEF TOWNS. MILITIA. INLAND NAVIGATION. COMMERCE.

Extent. THIS territory lies between lat. 37 45 and 41 50 N. and between 82 42 and 85 45 W. lon. Its average length is about 270 miles, and its average breadth about 130. The number of square miles is not far from 35,000.

Boundaries. This territory is bounded E. by the state of Ohio; S. by the Ohio river; W. by the Illinois territory; N. by Michigan territory.

Divisions. This territory is divided into 4 counties and 27 townships.

Counties.	No. of towns.	No. of inh.	Chief towns.
Dearborn	9	7,310	
Clark	6	5,670	Clarkesville
Harrison	3	3,595	Harrison
Knox	9	7,945	St. Vincennes
Total	27	24,520	

Original Population. The Kickapoos, Pyankeshaws, Musquitons, Ouiatanons, and Twigtwees inhabited this country, who, in 1780, had together about 1250 warriors. The Delawares have since resided here.

History. This territory, till January, 1801, formed a part of what was called the Northwestern territory. At this period, it was erected by Congress into a territorial government with usual powers and privileges.

The Delawares and Pyankeshaws, in 1804, sold a large tract of land bordering on the Ohio, S. the Wabash, W. White river, N. and Silver creek, E.

Another large purchase was made in 1805, of the Miami, Eel river, and Weas Indians. This purchase and the last mentioned extend the whole breadth of the territory on the Ohio river; and together with what was ceded at the treaty of Grenville, around St. Vincennes in 1794, comprehend a tract 130 miles long, by 50 broad.

The Miami and Eel river tribes, and the Delawares and Putawatimes, as their allies, agreed in 1809, to cede to the United States all that tract of country, which is "included between the boundary line established by the treaty of fort Wayne, the Wabash, and a line to be drawn from the mouth of a creek called Racoon creek, emptying into the Wabash, on the S. E. side, about 12 miles below the mouth of Vermillion river, so as to strike the boundary line established by the treaty of Grouseland, at such a distance from its commencement at the N. E. corner of the Vincennes tract, as leaves the tract now ceded 30 miles wide at the narrowest place. And also all that tract which is included between the following boundaries, viz. beginning at fort Recovery, thence southwardly along the general boundary line, established by the treaty of Grenville, to its intersection with the boundary line established by the treaty of Grouseland; thence along said line to a point from which a line drawn parallel to the first mentioned line, is 12 miles distant from the same, and along the said parallel line, to its intersection with a line to be drawn from fort Recovery, parallel to the line established by the said treaty of Grouseland."

The remainder of this territory is still in possession of the Indians.

On the 7th Nov. 1811, a bloody battle was fought in this territo-

ry, upwards of 100 miles above Vincennes, between the troops of the United States and the Indians under the influence and command of the Prophet, a superstitious, designing, infatuated Indian.

Population. This territory contained, in 1800, 4875 inhabitants, and in

1810	23,890 whites		
	237 slaves		24,520
	393 free bl.		

Chief Towns. VINCENNES is the capital of this territory, and the seat of government; it stands on the bank of the Wabash, 150 miles from its mouth, in lat. 33° N. It has two unfinished brick buildings, one for an academy, the other for a courthouse. It is surrounded by a prairie 4 miles long, and 1 broad, most of which is cultivated by the inhabitants; the remainder is a handsome meadow, formed by nature, producing good grass. The inhabitants of this town, are a mixed body of people; a considerable part of them, are a sort of mongrel Canadian French, of the lowest order of human beings; the state of society is far from being pleasant. The township contains 893 inhabitants. It is a post town, 743 miles from Washington. The fort stands on the E. side of the Wabash river. It was erected in the year 1787, to repel the incursions of the Wabash Indians.

The other considerable towns are Washington, in Harrison county, with 1257 inhabitants. Harrison, in the same county, 1193; Wabash, in Knox county, 1897; Springville, Clarkville, and Madison, in Clark county, the first of which has 1392 inhabitants, and the others upwards of 1000 each.

Militia. In 1808, the militia of this territory (which then embraced that of Illinois) was 2057. The number of males between 16 and 45, is 4600, the greater part of whom are capable of bearing arms.

Inland Navigation. The communication between Detroit, and the Illinois and Ohio countries, is up Miami river, to Miami village, thence by land 9 miles, when the rivers are high, and from 18 to 30, when they are low, through a level country to the Wabash, and through the various branches of the Wabash, to the place of destination.

Commerce. The commerce of this territory centres at Vincennes. The merchants bring their goods from Canada, down the Wabash, from Orleans up the Missisippi, and from the eastern states down the Ohio, and up the Wabash.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND PRODUCTIONS. RIVERS. ANIMALS. BOTANY. MINERALOGY.

Climate. SEE Ohio.

Face of the Country. See Ohio.

Soil and Productions. This territory has a fine soil, adapted to

corn, wheat, rye, oats, cotton, hemp, tobacco and other articles mentioned in the account of Ohio under this head.

In Clark county, in the town of Jefferson, is Pilkawa prairie, or plain, of 7 miles long and 3 broad, skirted with woods. It is high, level ground, with a very rich soil, covered with natural grass. On this tract there was never a tree in the memory of man. Two hundred acres of wheat were seen growing, a few years ago, at one time on this plain, yielding nearly 50 bushels on an acre. The customary produce of corn is from 50 to 60 bushels, an acre. The grass is from 4 to 8 feet high on the prairies.

Rivers. The Wabash is a beautiful river with high and fertile banks. It empties into the Ohio, by a mouth 270 yards wide, 1020 miles below fort Pitt. In the spring, summer, and autumn, it is passable with batteaux drawing 3 feet water, 412 miles, to Ouiatanon, a small French settlement, on the west side of the river; and for large canoes 197 miles farther, to the Miami carrying place, 9 miles from Miami village. This village stands on Miami river, which empties into the southwest part of lake Erie. This river is navigable the most of the year as far as this place, and about 20 miles below the town is a ripple, where mills may be built, so that the farmer may have his wheat manufactured on his way to New Orleans; which is a good market for all kinds of produce.

White river is one of the largest tributaries of the Wabash. It comes in from the N. E. and is formed of 2 branches, which unite about 25 miles from its mouth, which is 20 miles below Vincennes.

The Theakiki and Plein rivers, which unite below lake Dupage, and form the Illinois river, are within this territory. White Water river, which empties into the Ohio, at Cincinnati, is also a water of this territory.

Animals. The same as in Ohio and Michigan.

Botany. The forests abound with sugar maple, from which the inhabitants procure their supply.

Mineralogy. A silver mine has been discovered about 28 miles above Ouiatanon, on the northern side of the Wabash. Salt springs, lime, and free-stone, blue, yellow, and white clay, are found in plenty upon the Wabash. No iron ore has been found in this tract. On Big river, and all the streams which run into the Ohio, is found a plenty of sea coal.

There are salt springs near the Wabash river, which have been ceded to the United States by certain Indians, at which an establishment of salt works has been made, under the patronage of Congress.

ILLINOIS TERRITORY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAME. DIVISIONS. ORIGINAL POPULATION. HISTORY. POPULATION. CHIEF TOWNS. MILITIA. FORT. INLAND NAVIGATION. COMMERCE.

Extent. THIS territory is the western half of what was formerly called the territory N. W. of the Ohio, and embraces the whole of it, except what is included in the state of Ohio, and the territories of Michigan and Indiana. It lies between lat. 37° and 49 37 N. and between long. 85 45 and 95 6 W. Its length from the Ohio to the northern line, is 870 miles; its breadth from the head of the Missisippi eastward, to the western boundary of Michigan territory is about 650 miles; opposite the S. end of lake Michigan, 200 miles; at the mouth of the Illinois, 150 miles; and on the Ohio 50. The whole tract contains about 200,000 square miles, exclusive of the waters of lakes Superior and Michigan, large sections of which are included in this territory.

Boundaries. The northern boundary of the United States, which passes through lake Superior, separates it from Upper Canada on the N.; on the E. it has lake Michigan, and the Indiana territory; on the S. Ohio river; on the S. W. and W. the Missisippi, which separates it from Louisiana: and on the N. W. it is bounded by a line drawn from the N. W. corner of the lake of the Woods, southwesterly to the most northern source of the Missisippi.

Name. This territory derives its name from the river *Illinois*, an Indian word, signifying *a man of full age, in the vigor of his years.* Illinois river, is the river of men.*

Divisions. That part of this territory which is settled by white people, is divided into two counties, viz. St. Clair and Randolph, which are subdivided into 12 townships. Goshen, which has 1725 inhabitants, is the capital of the former; and Kaskaskia, with 622 inhabitants, is the chief town in the latter, and the capital of the whole territory.

Original Population. When Carver visited this country in 1768, he found the Winnebagoes, a warlike nation, settled on Fox river, where they still inhabit; the Saukies on the upper part of the Ouisconsin, and near the portage; and the Ottigaumies near its mouth, and above it along the Missisippi. The Chepeways, or as M'Kenzie calls them the Chepewyans, then possessed the country S. of lake Superior, that on the Chepeway and a great extent westward. The Nandowessies, then also occupied a large tract of country, S. W. of the Missisippi, in Upper Louisiana. Whether the same or different tribes now occupy this country we are unable to say. It

* Hinnipen.

is however possessed by Indians, and they still have a title to the great body of the land. In 1780, there were, according to Hutchins, 12 tribes, inhabiting different parts of this territory, viz. the Kickapoos, Pyankeshaws, Musquitons, Ouiatanons, Kaskaskias, Piorias, Mitchigamas, Outtagomies, Musquatons, Miscotins, Outtamacs, and Musquakevs. These tribes together were estimated to contain 5300 fighting men.

History. Previous to the year 1756, the French had settlements at Kaskaskia, Cahokia, and other places in this territory. At that time they were dispossessed by the British, who held the country till the revolution.

In 1803, the Kaskaskias sold to the United States, a tract of country of about 12,000 square miles, bordering on the Missisippi, from the mouth of the Ohio, to the mouth of the Illinois, and extending back about 80 miles.

In 1804, the Sacs and Foxes conveyed to the United States a large tract in the form of a triangle, each side about 240 miles in length, lying on the Missisippi, between the mouths of the Illinois and Ouisconsin, and extending E. to a point, at the mouth of Fox river, in the Illinois.

In 1805, the Piankashaws sold the United States a tract, 30 by 100 miles in extent, between the Great and Little Wabash. To the remainder of this extensive territory the Indian title remains entire.

It was a part of the Indiana territory till 1809, when it was erected into a separate government.

Population. The civilized population of this territory in 1810 was as follows, 11,501 whites, 168 slaves, and 613 free blacks. Of the whites 6871 were males, and 5121 were females. The vale between the Illinois and Kaskaskia rivers, is inhabited by French people, the descendants of the original settlers of this country.

Chief Towns. KASKASKIA is the chief town in Randolph county, and the established capital of the whole territory. It stands on the southwest bank of the river of the same name, 12 miles from the mouth of the river, but not half that distance from the Missisippi, in a direct course. It contains about 100 houses, many of them well built ; several of stone with gardens, and large lots adjoining. It now contains 622 inhabitants.

CAHOKIA is 65 miles north of Kaskaskia, on the southern side of Cahokia creek, a mile from its mouth. About the year 1774, this village contained 50 houses, some of them well built, and 300 inhabitants, with 80 negroes, and large stocks of cattle, swine, &c. It has now 711 inhabitants.

GOSHEN is the capital of St. Clair county, and has 1725 inhabitants.

Militia. There are 2613 white males, between 16 and 45 years of age. Of these the greater part are capable of bearing arms.

Fort. Fort Massac was built by the French on the west bank of the Ohio, near its mouth, in lat. 37 15, 11 miles below the mouth of Tennesee river. It stands on a high, stony bank. The stones appear to be composed of ferruginous matter and gravel. A con-

siderable quantity of land, both above and below the fort, is annually inundated. A number of troops are stationed here.*

Inland Navigation. An inspection of the map will shew that this territory, intersected in all directions by rivers, is commodiously situated for inland navigation. The Illinois river furnishes a communication with lake Michigan, by the Chicago river, a small stream emptying into lake Michigan, and between which and the Illinois there are two portages, the longest of which does not exceed 4 miles. The Theakiki, also, another branch of the Illinois river, extends nearly to the St. Joseph, which empties into lake Michigan. For further particulars, on this head, see *rivers*.

Commerce. Fort Massac is a port of entry, and from it was exported, foreign articles in the 4th quarter of 1803, to the value of 17,320 dollars.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL. RIVERS. LAKES. BOTANY. MINERALOGY. CURIOSITIES.

Face of the Country. BETWEEN the Kaskaskia and Illinois rivers, which are 84 miles apart, is an extensive tract of level rich land, which terminates in a high ridge, about 15 miles before you reach the Illinois river.

Soil. The Illinois river is bordered by fine meadows which in some places extend as far as the eye can reach; and the soil of the country generally is of a very superior quality.

Rivers. The Missisippi, Illinois, and Wabash rivers have been described.†

The Ouisconsin, the most considerable eastern branch of the Missisippi above the Illinois, empties in lat. 43°. The Missisippi is here only half a mile wide; but, a little above it is more than a mile.

The Ouisconsin flows with a smooth gentle current between high banks, to the carrying place, where it interlocks with Fox river, and is, the whole distance, easily navigable. From its source to the carrying place, where it is more than 100 yards wide, its course is from the E. of N. and thence to the Missisippi is a little S. of W.

Fox river rises S. W. of the carrying place, where it approaches within 1 mile of the Ouisconsin. Its course thence is N. E. and N. about 130 miles, to the N. W. corner of Winnebago lake; its current is gentle, and its depth considerable. Across this lake the distance is 12 miles, to its mouth on the E. end, and thence to the head of Green bay in lake Michigan, is 35 miles, the first 30 of which are full of rocks and rapids, and the last five are smooth and navigable. The width of the river from lake Winnebago is from 50 to 100 yards; above that lake it gradually decreases, and is only 5 yards at the carrying place, which is little more than one mile.

* Ellicott. † See pages 128, 224, 225, 451.

This is the nearest point of communication between the navigable waters of the gulfs of St. Lawrence and Mexico. Near half the way across the carrying place is a morass, overgrown with a species of long grass; the rest is a plain, covered with oak and pine trees.

Iron river, so called by the Indians, is 20 yards wide at its mouth in lake Michigan, has a solid rock for its bottom, and is not passable even in a canoe. On it is a copper mine, 3 leagues from its mouth.

The Chepeway empties into the Missisippi, about 200 miles above the Ouisconsin, just at the mouth of what is called lake Pepin, which is merely an expansion of the river. The Chepeway is about 80 yards wide at its mouth, but much wider a little above. It is formed by two branches; the eastern and largest heads in the height of land between the Missisippi and lake Superior, and pursuing a southerly direction, receives the western, 30 miles from their common estuary. It is navigable to the foot of the falls, 30 miles up the eastern branch.

The river St. Croix falls into the Missisippi 30 miles above lake Pepin.

The St. Louis, a considerable stream, is the most remote source of the St. Lawrence, and falls into lake Superior at its western extremity, which the French call Fond du Lac; and the English West bay. Its mouth is in lat. 46 45 N; and in lon. 92 10 W.

Winnipec river forms a part of the northern boundary of this territory, and of the United States.

Dove or Pigeon river rises in the height of land between lakes Superior and Winnipec. It issues from Peche lake, a small pond 3 miles across, which borders the height of land, and pursues an easterly course to lake Superior. Between Peche lake and lake Superior, a distance of 50 miles in the route pursued by the fur traders, lie Petite, Peche, Rose, Mountain, Elk, and Outard lakes. As far as we can learn, Dove river is the estuary of a part of these small lakes, and empties a little north of the grand Portage.

The Seseme Quian river, is a western branch of the Illinois, which it meets about 180 miles from its mouth, is 40 yards wide, and boatable 60 miles, bordered by good land.

De la March, a handsome river, 9 miles above, falls into the Illinois from the N. W. is 30 yards wide, and boatable 8 or 9 miles. Here the land begins to rise on the western bank of the Illinois.

Michilimakinac river falls into the Illinois from the S. E. 195 miles from its mouth, is 50 yards wide, and boatable 90 miles. At its mouth are 30 or 40 small islands, which have the appearance of a village. Its banks are covered with red and white cedar, pine, maple, walnut, &c. Here are indications of coal.

Crows Meadow river, falls into the Illinois from the E. 240 miles from the Missisippi, and 30 above Illinois lake; it is 20 yards wide, and boatable 15 or 18 miles. Opposite the mouth of this river, to the westward, are extensive meadows.

Rainy Island river, 15 yards wide, and boatable 9 miles to the rocks, is an eastern branch of the Illinois, bordered with meadows

of fine grass, and timbered with birch, button, and peccan; 255 miles from the Missisippi.

Vermillion river, 12 miles farther up, is 30 yards wide, and rocky.

Fox river, from the W. 25 yards wide, 5 feet deep, winding through large meadows, falls into the Illinois, 300 miles from its mouth.*

The Kaskaskia and Au vase, empty into the Missisippi from the N. E. The former is boatable about 130 miles, the latter about 60. They both run through a rich country, which has extensive meadows.

The Little Wabash, is a tributary to the Great Wabash, into which it falls from the N. W. a few miles above its mouth in the Ohio.

Lakes. Lakes Michigan and Superior, Rainy lake, and the lake of the Woods, have already been described. They lie half within this territory.

White Bear lake, is the most northern source of the Mississippi, and lies S. W. of the western extremity of the lake of the Woods. It is about 60 miles in circumference, and its form is nearly round.†

Red lake is the source of Red lake river, which runs westward and joins Red river, a tributary of lake Winnipec. Red lake is about the size of White Bear lake, and of a similar form. It lies a little N. E. of it, and S. or S. W. of the lake of the Woods, and contains an island of considerable size.

Lake Pepin is merely an expansion of the Missisippi, 90 miles below the falls of St. Anthony. It is about 20 miles long from S. E. to N. W. and near 6 broad. It is in many places very deep, and abounds with various kinds of fish.

Winnebago lake is 15 miles long from E. to W. and 6 wide. At the S. W. corner, it receives a considerable river, called Crocodile river. Its situation has been mentioned. Great numbers of small lakes are found dispersed in the country between the Missisippi and lake Superior.

We have already mentioned those between that lake, and Peche lake. A portage of only 679 paces separates this last from lake Hauteur de Terre, a source of Winnipec river; which, leaving the last mentioned lake, runs through lac de Pierres-a-fusil; Maraboeuf lake; lake Saginaga, 14 miles long by 3 wide; lac des Couteaux, 12 miles by 2; lac Bois Blanc, 15 miles long; lake Croche, 18 miles long; lake la Croix, of equal length; Vermillion lake, 7 miles long; and lake Namaycon 16; to Rainy lake, and thence through the lake of the Woods, and lake Winnipec, to Hudson bay.

Illinois lake, through which the river of this name passes, is about 20 miles long, and 3 wide. It has no rocks, shoals, or perceivable current, and is 210 miles from the Missisippi. At the south end of this lake, on the W. bank of this river, stands old Pioria fort, built by the French, and destroyed by fire.

* Patrick Kennedy's Journal, of 1773, published by Hutchins. † Carver.

Botany. In this country are found the oak, hiccory, cedar, mulberry, &c. hops, dying drugs, medical plants of several kinds, and excellent wild grapes. In 1769 the French settlers made 110 hogsheads of strong wine from these grapes. On the banks of the river Illinois are found the maple, ash, button wood, red and white cedar, pine, walnut, cherry tree, peccan, plum tree, birch, &c.

Zoology. The banks of the rivers abound with buffalo, deer, elk, turkeys, ducks, teal, geese, swans, cranes, pelicans, pheasants, partridges, &c. In the rivers and lakes, are found plenty of fish, particularly the sturgeon and picannau.

Mineralogy. On the north western side of the Illinois river, 266 miles from its mouth, is a coal mine, which extends for half a mile along the middle of the bank of the river; and about half a mile below the coal mine, are two salt ponds, 100 yards in circumference and several feet in depth. The water is stagnant and of a yellowish color; but the French and natives make good salt from it. In a rapid in the Illinois, about 300 miles from its mouth, are rocks, from which mill stones were fabricated by the French. Near the island of Piere, in the Illinois, 100 miles from its mouth, from a high hill, the Indians procure stones, from which they make their gun flints, and point their arrows. On Mine river, a western branch of the Illinois, (which it receives 120 miles from its mouth) is, according to report, a rich copper mine. On the banks of the Ouisconsin, are immense quantities of the purest lead ore. There are many mines of very pure copper found on the south shore of lake Superior. There is a copper mine 9 miles from the mouth of Iron river, a water of Michigan lake. On middle island, 19 leagues N. W. of Iron river, are found great quantities of pure copper. Here is a hill 30 feet high, bordering the shore, from the foot of which pieces of copper from 7 to 25 pounds have been taken, indicating it to contain a rich copper mine. Not far from this island, another river empties into the lake, which the Indians call "*Roaring river*, from a rumbling noise, like distant thunder, which is heard every two or three days during the warm season, occasioned, it is thought, by the vast quantities of copper, which attract the electric fluid to that place." The Indians in consequence, approach this river with religious awe, as the residence of the great spirit. The banks of this river are high near its mouth, where the earth appears to have been rent asunder by some great convulsion. The Indians never eat the fish of this river, as they are of a poisonous nature, the water being strongly impregnated with copper. The taking of the fish from this river, the Indians conceive, will offend the great spirit.*

Curiosities. On the northwest bank of the mouth of the Wabash, N. lat. 37 36, is a remarkable cave, called the *Great cave*, which is one of the greatest natural curiosities on the Ohio. The entrance is spacious, and remarkably uniform; the dome is elliptical, and the uniformity continues to its termiation in the hill.†

* Gov. Hull's MS. † Ellicott.

SOUTHERN STATES.

THE third grand division of the United States, comprehends-

Maryland	Tennessee
Columbia District	South-Carolina
Virginia	Georgia, and
Kentucky	Missisippi Territory
North-Carolina	

This extensive division is bounded N. by Pennsylvania and the Ohio river; W. by the Missisippi; S. by Florida; E. by the Atlantic ocean and Delaware state. It is intersected in a N. E. and S. W. direction by the range of Allegany mountains, which give rise to many noble rivers, which fall either into the Atlantic on the E. the Missisippi on the W. or the gulf of Mexico on the S.

The following may be considered as the principal productions of this division: cotton, tobacco, rice, wheat, corn, tar, pitch, turpentine, hemp, and lumber.

In this district is fixed the permanent seat for the general government.

MARYLAND.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. FINANCES. MANNERS AND CUSTOMS. LITERATURE. CHIEF TOWNS. ROADS. INLAND NAVIGATION. MANUFACTURES. COMMERCE.

Extent. THE northern line of the state is 196 miles long. In the broadest part, on the east of the bay, it is 120 miles wide. In the narrowest, a little above Hancocktown, it is only 3 miles; at Cumberland 6; and, at the western boundary, 40. The number of square miles is about 14,000, of which about one fifth is water. It lies between lat. 38° and 39 44 N. and between lon. 75 10 and 79 20 W.

Boundaries. Bounded N. by Pennsylvania and Delaware; E. by Delaware and the Atlantic; S. by Virginia and the Chesapeak; S. W. by the Potowmac, which separates Maryland from Virginia; and W. by Virginia.

Divisions. This state is divided into 19 counties, 11 of which are on the *western*, and 8 on the *eastern* shore of Chesapeak bay.

	Counties.	Population. in 1790.	in 1800.	in 1810.	Chief towns.
Western shore.	Harford	14,976	17,626	21,258	Bellair
	Baltimore	38,937	59,030	75,810	Baltimore
	Ann-Arundel	22,598	22,623	26,668	Annapolis
	Frederick	30,791	31,423	34,437	Fredericktown
	Allegany	4,809	6,303	6,909	Cumberland
	Washington	15,822	18,850	18,730	Elizabethtown
	Montgomery	18,003	15,058	17,980	
	Prince George	21,344	21,185	20,589	Marlborough
	Calvert	8,652	8,297	8,005	St. Leonard
	Charles	20,613	19,172	20,245	Port Tobacco
	St. Mary's	15,544	13,699	12,794	Leonardstown
Eastern shore.	Cecil	13,625	9,018	13,066	Elkton
	Kent	12,836	11,771	11,450	Chester
	Queen Ann	15,463	14,857	16,648	Centreville
	Caroline	9,506	9,226	9,453	Denton
	Talbot	13,084	13,436	14,230	Easton
	Somerset	15,610	17,358	17,195	Princess Ann
	Dorchester	15,875	12,346	18,108	Cambridge
	Worcester	11,640	16,570	16,971	Snow Hill
	Total	319,728	349,692	380,546	

Name. Charles I. of England (in his patent to lord Baltimore, in 1632) gave the name of *Maryland* to this territory, in honor of his wife, Henrietta Maria, daughter of Henry the great of France and Navarre. It was then taken from Virginia.

History. This territory was originally included in the patent of the South-Virginia company, and considered as a part of Virginia, till June 20, 1632, when the patent was granted to Cecilius Calvert, lord of Baltimore, in Ireland. The proprietor offered 50 acres in fee to every emigrant, and gave equal privileges to all classes of Christians.

In 1634, the first colony, consisting of 200 Roman Catholics, planted itself on the north side of the Potowmac, at a place called St. Mary's. The first legislature was convened at St. Mary's in 1638, which divided the territory into baronies and manors, and passed a variety of laws. The next year the legislature passed a law establishing the house of assembly.

In 1642 a colony from Maryland took possession of the Schuylkill; but were immediately dispossessed by the Dutch from New-Netherlands. Owing to the intrigues of one Claiborne, the province was this year engaged in a calamitous Indian war.

In 1645 Claiborne raised a rebellion, and drove Calvert from the province.

The constitution of Maryland was settled in 1650; the legislature divided into two houses; and the province into three counties. Parliament violently assumed the government in 1652, and entrusted it to commissioners. A second insurrection took place in 1656, headed by one Fendal; and two years afterwards the commissioners surrendered to him the government. The next year the upper house of assembly was dissolved.

The government, in 1662, reverted to lord Baltimore; who reassumed the administration, and established a mint. The same year the Janadoah Indians made frequent incursions, but were repelled by the aid of the Susquehannahs.

The assembly encouraged the importation of negro slaves, in 1671.

Annapolis was made the seat of government, instead of St. Mary's, in 1699. The boundary between Pennsylvania and the province was settled, by the proprietors, in 1732.

Maryland resisted the encroachments of parliament in 1769; and, in 1775, was forward in promoting the revolution; but did not sign the articles of confederation till 1781. The present constitution of the state was formed in August, 1776.

Religion. The number of Episcopalian churches in 1811 was 30, and of clergymen 35. The Presbyterians are believed to be more numerous. The Roman Catholics were the first settlers; and there are more of them in Maryland than in all the other states. The other denominations are Methodists, German Lutherans, and Calvinists, Baptists, Friends, Mennonists, Nicolites, and Swedenborgians.

Government. The legislature is styled *the general assembly*, and consists of the senate and house of delegates. The senate is chosen by electors, who are elected by the freemen, (on the first Monday in September) every fifth year, two from a county and one from each of the cities of Annapolis and Baltimore. The electors meet at Annapolis, a fortnight after they are chosen; and elect, by ballot, 9 senators from the western shore, and 6 from the eastern; who hold their station 5 years. They must be 25 years of age; have resided the preceding 3 years in the state; and be worth above 1000*l.* The delegates are chosen annually on the first Monday in October. Four are sent by each county; and two from each of the two cities. They must be 21 years of age, residents in the county, or city, during the preceding year, and worth above 500*l.* The assembly meets annually on the first Monday in November. The privilege of voting is possessed by all white persons, who are 21 years of age, and have paid taxes. The governor is chosen annually, on the second Monday in November, by a joint ballot of both houses; and, on the same day, an executive council of 5 persons is chosen in the same manner, for the same time; who must have the same qualifications as senators. The governor must be 25 years of age, a resident the preceding 5 years, and worth 5000*l.* of which 1000*l.* must be freehold estate. He cannot be chosen but 3 years successively.

Population. The number of inhabitants was in the year

1665 about 16,000
1734 about 36,000 taxables
1749 about 85,000 taxables

1755 {
55,519 free white males
49,908 free white females
1,574 male convicts
407 female convicts
3,592 mulattoes
42,764 negro slaves
} 153,564

1790	208,649 whites 103,036 slaves 8,043 free bl.	319,728	1810	235,117 whites 111,502 slaves 33,927 free bl.	380,546
1800	221,998 whites 107,707 slaves 19,987 free bl.	349,692			

The items of the census of 1810 were as follow :

	males.	females.	total.
Under 16 years of age	57,102	53,970	111,072
Between 16 and 45	47,943	46,783	94,726
45 and upwards	15,165	14,154	29,319
Total	120,210	114,907	235,117

Maryland is entitled to 9 representatives to congress.

In the two first national enumerations Maryland was the 6th state in point of population ; and, in the third, the 8th. The increase of white inhabitants in the last 10 years was 13,119, or $5\frac{9}{11}$ per cent. ; and that of the blacks, 17,735, or 14 per cent.

Militia. The militia of this state amount to about 30,000, consisting of able bodied men, between 18 and 45, and organized in the manner they are in the other states.

Finances. The funds of Maryland on the first of November, 1811, were as follow :

Six per cent. stock, United States	$157,508·70	
Deferred stock	485,439·10	
Three per cent.	335,104·74	
		$978,052·54
Debts of various kinds due to the state	£24,283 9 $6\frac{1}{4}$	
Bank stock	163,537 10 0	
Stock in turnpike and other companies	53,604 3 4	
	£241,425 2 $10\frac{1}{4}$	$643,800·38
		$1,721,852·92

The following was at that time the state of the treasury.

Balance in the treasury, Nov. 1, 1810	£43,718 9 $3\frac{1}{2}$	
Rec'ts for the year ending Nov. 1, 1811	62,750 16 4	
		£106,469 5 $7\frac{1}{2}$
Expenditures that year	£45,672 2 $2\frac{3}{4}$	
Appropriations then due	7,196 12 3	
Expences of the existing session	11,250	
		£64,118 14 $5\frac{3}{4}$
		£42,350 11 $1\frac{3}{4}$
Probable receipts for 1812		61,104 6 1
Fund for that year		103,454 17 $2\frac{3}{4}$
Estimated expences for that year		39,938 0 0
Subject to future appropriations		£63,516 17 $2\frac{3}{4}$ or $169,378

The state, in 1804, recovered, in the court of chancery in England, a claim, amounting to about $800,000. Its funds are so large, that no state tax is imposed on the personal or landed property of the citizens. The only state tax is a small one on marriage and tavern licences, and on licences for hawkers and pedlars. The county expences are defrayed by county taxes, imposed by the levy courts.

Manners and Customs. The inhabitants, except in the populous towns, live on their plantations; to a citizen of the middle, and especially of the eastern states, which are thickly populated, they appear to live very retired and unsocial lives. It is said, however, that there is no class of men in the world, who associate more with each other than the more opulent planters of Maryland. Their manners are as polished as those of the country gentlemen in England; their minds are well informed, and their intercourse free and social; their sons generally receive a liberal education, and many of them engage in the study of the law, without any intention of pursuing it as a profession.

That pride which grows on slavery, and is habitual to those, who from their infancy are taught to believe and to feel their superiority, is a visible characteristic of the inhabitants of Maryland. But with this characteristic we must not fail to connect that of hospitality to strangers, which is equally universal and obvious. Many of the women possess all the amiable, and many of the elegant, accomplishments of their sex.

The inhabitants are made up of various nations of many different religious sentiments; few general observations, therefore, of a characteristical kind will apply. They owe little money as a state, and are willing and able to discharge their debts. Their credit is very good; and although they have so great a proportion of slaves, yet a number of influential gentlemen have evinced their humanity and their disposition to abolish so disreputable a traffic, by forming themselves into a society for the abolition of negro slavery.

Literature. In 1782, a college was instituted at Chestertown, in Kent county, and was honored with the name of Washington college. It is under the management of 24 visitors or governors, with power to supply vacancies, and hold estates whose yearly value shall not exceed 6000*l.* current money. By a law enacted in 1787, a permanent fund was granted to this instituton of 1250*l.* a year, out of the monies arising from marriage licenses, fines, and forfeitures, on the Eastern Shore. From the repeated attempts of the legislature to take the annual fund from this college, it has in *some measure* lost its reputation, though it is provided with the most able tutors. In the year 1798 its enemies succeeded in withdrawing 500*l.* from the yearly grant formerly made.

St. John's college was instituted in 1784, to have also 24 trustees, with power to keep up the succession by supplying vacancies, and to receive an annual income of 9000*l.* A permanent fund is assigned this college of 1750*l.* a year, out of the monies arising from marriage licences, ordinary licences, fines, and forfeitures, on the Western Shore. This college is at Annapolis, where a building is pre-

pared for it. The college edifice is of brick, on the north side of the town, and has about 100 students, and flourishing. Very liberal subscriptions were obtained towards founding and carrying on these seminaries. The two colleges constitute one university, by the name of "the university of Maryland," whereof the governor of the state, for the time being, is chancellor, and the principal of one of them vice chancellor, either by seniority or by election, as may hereafter be provided for by rule or by law. The chancellor is empowered to call a meeting of the trustees, or a representation of seven of each, and two of the members of the faculty of each, (the principal being one) which meeting is styled "the convocation of the university of Maryland," who are to frame the laws, preserve uniformity of manners and literature in the colleges, confer the higher degrees, determine appeals, &c.

The French Roman Catholics have a college at Baltimore, which has a considerable reputation, and 70 or 80 students.

In 1785 the Methodists founded a college at Abington, in Harford county, by the name of Cokesbury college; the college edifice was of brick, handsomely built, on a healthy spot, enjoying a fine air, and a very extensive prospect. This building was burned to the ground some years ago, and the society purchased a large and elegant building in Baltimore, where they had a flourishing seminary, but in the year 1797, this was likewise consumed by fire. Since that period they have made some ineffectual attempts to carry their original plan into operation, but it is believed that their funds have not proved adequate to the purpose.

Washington academy, in Somerset county, was instituted by law in 1779. It was founded and is supported by voluntary subscriptions and private donations, and is authorized to receive gifts and legacies, and to hold 2000 acres of land. A supplement to the law, passed in 1784, increased the number of trustees from 11 to 15.

There are a few other literary institutions, of inferior note, in different parts of the state, and provision is made for free schools in most of the counties; though some are entirely neglected, and very few carried on with any success; so that a great proportion of the lower class of people, a few years ago, were ignorant. But the revolution, among other happy effects, has roused attention to education, which is fast spreading its salutary influences over this and the other southern states.

The legislature of this state has lately appropriated $25,000 per annum for the encouragement and support of schools.

Chief Towns. BALTIMORE is the largest town in Maryland; and the third in population, and the fourth in commercial importance, in the United States. It stands at the head of Patapsco bay, which sets up 18 miles N. W. from the Chesapeak. The upper part of the bay is called the harbor, and is connected with the bay at Whetstone point, about 2 miles below the town, by a narrow strait, scarcely a pistol shot across; which is defended by fort M'Henry. Large vessels go up to Fell's point, which projects a considerable distance into the harbor, on the E. side of the town; only small

vessels can go up to the other parts of the shore. The situation of the town is low, and but moderately healthy. A creek falls into the head of the bay, dividing the town into two parts; the eastern and smallest of which is called the Old town. Four bridges are thrown over this creek. Market is the principal street, and is nearly parallel with the harbor. It is crossed by several streets, running from the water. Many of the houses are well built. Their number in 1787, was 1955, and that of the churches in 1804, was 11. The population, in 1790, was 13,503; in 1800, 26,514; and in 1810, in the city 35,583, of whom 7686 were blacks; and in the precincts 10,972, of whom 2657 were blacks: total in the city and precincts 46,555, of whom 10,343 are blacks. A considerable number of the inhabitants are French emigrants from Cape François, and many of them are Europeans. The commerce of Baltimore is very extensive, and is carried on with all parts of the world. The exports in 1798, amounted to more than $12,000,000; and in 1805, the tons of shipping was 72,210. The Baltimore bank has a capital of $300,000. Lat. 39 21 N. long. 77 48 W.

Annapolis is 30 miles S. of Baltimore, on the S. bank of the Severn river, a small distance from its mouth. The statehouse is a noble edifice, and stands in the centre of the city. From this point the streets diverge in every direction, like the radii of a circle. The other public buildings are a college, an Episcopal and a Methodist church, a theatre, and market. The houses, about 350 in number, are well built. The aggregate tonnage for the year 1805, 2198 tons. This town is on the decline.

Fredericktown is a fine flourishing inland town, of upwards of 300 houses, built principally of brick and stone, and mostly on one broad street. It is situated in a fertile country, about 4 miles south of Catokton mountain, and is a place of considerable trade. It has 7 places of worship, for Roman Catholics, Episcopalians, German Lutherans, and Calvinists, Presbyterians, Baptists, and Methodists. Besides these there are an almshouse, courthouse, gaol, academy, and two brick market houses. In November, 1797, there were 449 dwelling houses in this town, and 2606 inhabitants.

Elizabethtown, formerly called Hagarstown, is but little inferior to Fredericktown, and is situated in the beautiful and well cultivated valley of Conegocheague, and carries on a considerable trade with the western country.

Elkton is situated near the head of Chesapeak bay, on a small river, which bears the name of the town. It enjoys great advantages from the carrying trade between Baltimore and Philadelphia. The tide waters extend to this town.

Roads. The turnpikes in Maryland lead chiefly to and from Baltimore. One from Baltimore N. W. to Reistertown, 16 miles, is 24 feet wide, and covered with a stratum of pounded stones 12 inches thick. The road there divides; one branch turning more to the N. meets the Pennsylvania line in 19 miles; the other in a W. N. W. course runs 29 miles in Maryland. We do not know whether this road is completed. The capital of the company is $420,000. A turnpike from Baltimore to Boonsborough beyond the Blue

Ridge, and 62 miles from Baltimore, is 22 feet wide, and covered with pounded stone 10 inches thick. Upwards of 40 miles are completed. The capital stock is $500,000. This road will probably soon be extended 73 miles farther from Boonsborough to Cumberland. There it will meet the road laid out, by the United States, from Cumberland, 72 miles W. to Brownville, on the Monongahela; making the whole distance, from Baltimore to the navigable waters of the Ohio, 207 miles. This is the shortest communication, except that from the city of Washington, between tide water and the navigable western waters. A road has been commenced, from Baltimore N. called the Falls turnpike. It is 22 feet wide, and has a stratum of pounded stones 10 inches thick. It is partly completed. A bill for a turnpike between Baltimore and Washington, passed the legislature of this state, in December, 1811.

Inland Navigation. A part of the Delaware and Chesapeak canal is to be in Maryland. The canals to improve the Potowmac are also undertaken by a company incorporated by the states of Maryland and Virginia. Chesapeak bay and the Susquehannah completely divide the state: the Potowmac is its southwestern boundary, and has been rendered navigable to the Shenandoah; so that no part of the state east of the Blue Ridge is more than 30 miles from navigable waters Many of the creeks and arms of the Chesapeak are also navigable 20 or 30 miles into the country.

Manufactures. Wheat is manufactured into flour in Frederick county (where there are 80 grist mills) to a great extent. Here are also two glass works, two iron works, two furnaces, two paper mills, and 400 stills, which make vast quantities of rye whiskey; some single distilleries produce 12,000 gallons a year.

Commerce. The exports from Maryland, in 1779, amounted to $16,299,609; in 1804, to $9,151,939; and, in 1810, to $6,489,018. Flour is the staple of the state. Tobacco is also a most important article. The other exports are pig iron, lumber, maize to a considerable amount, and beans, pork, and flax seed in smaller quantities. The aggregate tonnage of this state, in 1805, was 108,040 tons.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. BAYS. SWAMP. MOUNTAINS. MINERALOGY.

Face of the Country. THE land, in the counties on the eastern shore of the Chesapeak, is generally level and low; and, in many places covered with stagnant water. On the western shore, the land, between the bay and the lowest falls of the rivers, is in great part level and free from stones. From these falls to the Blue Ridge, the country is successively uneven, hilly, and mountainous. It continues of this latter description thence to the western limit of

the state. There are however several fine vallies between the western mountains along the course of Youhiogany.

Soil and Agriculture. The soil of the good land in Maryland is of such a nature and quality as to produce from 12 to 16 bushels of wheat, or from 20 to 30 bushels of Indian corn per acre. Ten bushels of wheat, and 15 bushels of corn per acre are the annual average crops in the state at large.

Since the Hessian fly has found its way into Maryland, the crops of wheat have been diminished; the ravages of this insect sometimes destroy whole fields. The farmers however are beginning to resist it by constant manuring and late seeding.

Wheat and tobacco are the staple commodities. Tobacco is generally cultivated in sets, by negroes in the following manner: the seed is sown in beds of fine mould, and transplanted the beginning of May. The plants are set at the distance of three or four feet from each other, and are hilled and kept continually free from weeds. When as many leaves have shot out as the soil will nourish to advantage, the top of the plant is broken off, to prevent its growing higher. It is carefully kept clear of worms, and the suckers, which put up between the leaves, are taken off at proper times, till the plant arrives at perfection, which is in August. When the leaves turn of a brownish color, and begin to be spotted, the plant is cut down and hung up to dry, after having sweat in heaps one night. When it can be handled without crumbling, the leaves are stripped from the stalk, tied in bundles, and packed for exportation, in hogsheads containing 800 or 900 pounds. No suckers nor ground leaves are allowed to be merchantable. An industrious person may manage 6000 plants of tobacco, and four acres of Indian corn. About 6000 plants yield 1000 pounds of tobacco. Some cotton is raised in this state, of an inferior quality, and manufactured in families. In the interior country, on the uplands, considerable quantities of hemp and flax are raised. As long ago as 1751, in the month of October, no less than 60 waggons, loaded with flax seed, came down to Baltimore from the back country.

Two articles are said to be peculiar to Maryland; the genuine *white* wheat which grows in Kent, Queen Ann's, and Talbot counties, on the eastern shore, and which degenerates in other places; and the bright *kite's foot* tobacco, which is produced on the Patuxent below Elkridge in Prince George's county.

The apples of this state are large, but mealy; their peaches plenty and good. From these the inhabitants distil cider, and peach brandy.

The forests abound with nuts of various kinds, which are collectively called *mast*. On this mast, vast numbers of swine are fed, which run wild in the woods. These swine, when fatted, are caught, killed, barrelled, and exported, in great quantities. This traffic formerly was carried on to a very considerable extent.

Rivers. The Potowmac is the whole southwestern boundary of Maryland. The Susquehannah runs in the state about 16 miles, emptying at Havre de Grace. The Youhiogany flows near the western line of the state, running in it a northerly course of 40 miles These have already been described.

The Patuxent rises a little N. of the parallel of Baltimore, and about 30 miles W. of that town. It runs S. E. and S. about 110 miles, to the Chesapeak, emptying between Drum and Cedar points. It admits vessels of 250 tons to Nottingham, 46 miles, and boats to Queen Anne, 14 miles farther. On the north side a high red bank reaches a considerable distance from Drum point up the river; and, as soon as a vessel has passed that point, it finds a deep harbor with 3 fathom water, sheltered from every wind.

The Patapsco heads in the northern part of the state, and runs S. and S. E. to Elkridge landing; where it falls down a moderate precipice, and, turning eastwardly, spreads into a broad stream, like a bay. It falls into Patapsco bay, at Whetstone point, about two miles below Baltimore, and is navigable to Elkridge landing, 8 miles.

On the eastern shore the Pocomoke rises in Cypress swamp, and runs S. and S. W 40 miles, to Pocomoke bay.

The Wicomico runs S. W. about 20 miles.

The Nanticoke rises in the ridge of the peninsula, in Delaware; and runs S. S. W. 25 miles in that state, and 30 in Maryland. It is the largest river between the two bays.

The Choptank rises on the border of the same state, in the same ridge, and runs S. by W. 30 miles, and W. by N. 15. It is a broad navigable stream.

Chester and Sassafras rivers, flow north of the Choptank.

Elk river rises in Chester county, Pennsylvania, and runs E. of S. 22 miles to Elkton, where it receives the Little Elk from the N. W. Thence it runs S. W. 13 miles to the Chesapeak, the whole of which it is navigable for vessels drawing 12 feet water.

The chief branches of the Potowmac in Maryland are Monocasy, Antietam, and Flintstone creeks. They all rise in Pennsylvania.

Bays. Nearly two thirds of the length of the Chesapeak lies in Maryland. The creeks connected with it are nothing but branches of the Chesapeak from 10 to 20 miles long, with a little stream of fresh water flowing into the head of each. The largest of these bays on the western shore are Patapsco bay, and the mouth of Patuxent river; on the eastern, the mouths of the Chester, Wye, Choptank, and Nanticoke. Senipuxen bay is merely a channel between the eastern coast, and a succession of sand and islands.

Swamp. A part of Cypress swamp, partly in Delaware, has already been mentioned, as lying in Maryland.

Mountains. The various ridges of the Allegany mountains cross the western and narrow parts of this state. The most eastern ridge is the South mountain, and then the Blue ridge; between which and the Allegany range are various ridges of mountains, which run but a short distance in Maryland.

Mineralogy. Iron ore, of an excellent quality is found in plenty in many parts of the state. Two beds of coal have been opened within a mile of the city of Baltimore.

DISTRICT OF COLUMBIA.

EXTENT. DIVISIONS AND GOVERNMENT. RELIGION. POPULATION AND MANNERS. CHIEF TOWNS. LITERATURE. COMMERCE. RIVERS. CANALS, BRIDGES, TURNPIKE, ROAD.

Extent. THIS district is a square with a side of 10 miles, and of course contains 100 square miles. It lies on both sides of the Potowmac, about 120 miles from its mouth, embracing a section of that river, extending from the southern part of Alexandria, to a point 5 miles above Georgetown, including a part of one of the Potowmac canals. It was ceded by the states of Maryland and Virginia to the United States, in 1790; and was accepted by congress in July of that year. This district includes the towns of Washington, Georgetown, and Alexandria.

Divisions and Government. The district is divided into two counties; the county of Washington, on the north side of the Potowmac; and the county of Alexandria, on the south side. In the former, the laws of Maryland are continued in force; in the latter, those of Virginia. Congress however makes what laws it pleases for both. A circuit court is established in this district, consisting of 3 judges, which sits on the 4th Monday of March, June, September, and December, at the city of Washington for the county of Washington; and on the 2d Monday of January, April, and July, and the 1st Monday of October, at Alexandria, for the county of Alexandria. Appeals and writs of errors go from this court directly to the supreme court of the United States. A register of wills, a judge of the orphan's court, and justices of the peace, are appointed for each county; and an attorney and marshal for the district. The supreme court of the United States sits at Washington, on the first Monday of February annually.

Religion. Presbyterians and Episcopalians are the two prevailing denominations in the district. There are also here Roman Catholics, Methodists, and Baptists, all of whom have places for public worship.

Population and Manners. The number of inhabitants in the district was, in the year

1800	5,652 whites 2,072 slaves 400 free blacks	8,124	1810	16,088 whites 5,395 slaves 2,540 free blacks	24,023

The manners of the greater part of the citizens of this district are much the same with those of the states to which they lately belonged. The inhabitants of the city of Washington, recently collected from all parts of the world, and many of them persons of distinction and influence, must, as a body, of course, possess a new character, the features of which are not yet so matured, as to be distinctly marked and described.

Chief Towns. WASHINGTON city is built on the Maryland side of the Potowmac, on a point of land, between what is called the

Eastern Branch and the Potowmac. Its plan, as laid out, extends nearly 4 miles up each of those rivers.

Although the land, on which the city is situated, in general appears level, yet by gradual swellings, a variety of elegant prospects are produced, and a sufficient descent formed for conveying off the water occasioned by rain. Within the limits of the city are a great number of excellent springs; and by digging wells, water of the best quality is found. Besides, the never failing streams that now run through this district may also be collected for the use of the city. The waters of Reedy Branch and of Tiber creek may be conveyed to the president's house. The source of Tiber creek is elevated about 236 feet above the level of the tide. The perpendicular height of the ground on which the capitol stands, is 78 feet above the level of the tide in Tiber creek. The water of this creek may therefore be conveyed to the capitol, and after watering that part of the city, may be destined to other useful purposes. The Eastern branch forms a safe and commodious harbor, being sufficiently deep for the largest ships, for about 4 miles above its mouth, while the channel lies close along the bank adjoining the city, and affords a large and convenient harbor. The Potowmac, although only navigable for small craft, for a considerable distance from its banks next the city, (excepting about half a mile above the junction of the rivers) will nevertheless afford a capacious summer harbor; as a great number of ships may ride in the great channel, oposite to, and below the city. The situation of this metropolis is upon the great post road about equidistant from the northern and southern extremity of the Union, and nearly so from the Atlantic and Pittsburgh, upon the best navigation, and in the midst of a commercial territory, probably the richest, and commanding the most extensive internal resources of any in America, if we except New-York. It has therefore many advantages to recommend it as an eligible place for the permanent seat of the general government.

The plan of this city appears to contain some important improvements upon that of the best planned cities in the world; combining, in a remarkable degree, convenience, regularity, elegance of prospect, and a free circulation of air. The positions of the different public edifices, and for the several squares and areas of different shapes as they are laid down, were first determined on the most advantageous ground, commanding the most extensive prospects and from their situation susceptible of such improvements as either use or ornament may hereafter require. The capitol is situated on a pleasant eminence, commanding a view of every part of the city, and of a considerable portion of the country around. The president's house stands on a rising ground, possessing a water prospect, together with a view of the capitol, and the most material parts of the city. Lines or avenues of direct communication have been devised to connect the most distant and important objects. These transverse avenues, or diagonal streets, are laid out on the most advantageous ground for prospect and convenience, and are calculated not only to produce a variety of prospects, but greatly to facilitate the communication throughout the city. N. and S.

lines, intersected by others running due E. and W. make the distribution of the city into streets, squares, &c. and those lines have been so combined, as to meet at certain given points, with the divergent avenues, so as to form, on the spaces *first determined*, the different squares or areas. The grand avenues, and such streets as lead immediately to public places, are from 130 to 160 feet wide, and may be conveniently divided into foot ways, a walk planted with trees on each side, and a paved way for carriages. The other streets are from 90 to 110 feet wide. In order to execute this plan, Mr. Ellicott drew a true meridional line by celestial observation, which passes through the area intended for the capitol. This line he crossed by another, running due E. and W. which passes through the same area. These lines were accurately measured and made the bases on which the whole plan was executed. He ran all the lines by a transit instrument, and determined the acute angles by actual measurement, leaving nothing to the uncertainty of the compass.

The city contained in 1800, 3,210 inhabitants, in 1803, 4,353, of whom 940 were people of colour, in 1810, 8,208, of whom 5,904 were whites, and 2,304 blacks. It had, in 1803, 880 houses, about one half of brick and stone, the rest of wood. These buildings are in 5 separate divisions or villages; one near the capitol, one near the navy yard, one at Greenleaf's point, one near the president's house, and one near Georgetown. This last is the smallest, and that at Greenleaf's point is the most solitary. There are 4 places for public worship, one for Presbyterians, one for Roman Catholics, one for Baptists, and one for Episcopalians. During the session of congress the chaplains are permitted to preach in the representatives' room. The president's house is 170 by 85 feet, two stories high. It is built of free white stone, the roof covered with slate. The plan of the capitol is to present, when completed, a front of 362 feet, but only the N. wing is yet erected. The hotel stands at the corner of 7th and 8th streets, extending 60 feet on the first, 120 on the other. The building is of brick, the basement is of cut white stone, 10 feet high, half of which is under ground. It is three stories high; the first and second are 14 feet high, the third is 11. The gaol is 100 feet by 26, two stories high, the first 9, the second 8 feet high. In the city are 3 market houses. At the navy yard are three large brick buildings for the reception of naval stores. Barracks are erected for the marines, having a front of 300 feet. The public offices occupy two buildings, each about 450 feet from the president's house, having a front of 120 feet, two stories.

This city became the permanent seat of the national government in 1800. Lat. 38 53 N. long. 77 45 W. from Greenwich.

ALEXANDRIA, formerly *Belhaven*, is at the southern corner of the district, and has an elevated and pleasant situation. It is built on the plan of Philadelphia. Many of the houses are handsome. Its public buildings are a Presbyterian church, one, also, for Episcopalians, an academy, courthouse, gaol, and bank. It contained,

in 1800, 5,071 inhabitants, and in 1810, 7,227. Its exports, in 1810, amounted to $930,634, and the tonnage, in 1807, to 11,320 tons.

GEORGETOWN, on the Maryland side, is separated by Rock creek from the city of Washington, and lies 4 miles from the capitol and 8 from Alexandria. It is built on a number of small hills, and has a pleasant situation. It has 4 churches, the Episcopalians, Presbyterians, Baptists, and Methodists having each one. The other public buildings are the Catholic college, an academy, courthouse, and gaol. Population, in 1810, 4,948. The exports, in 1810, amounted to $107,439; the tonnage, in 1807, to 2110 tons.

Literature. The Roman Catholics have a college in Georgetown, which is well endowed. There are academies at Alexandria and Georgetown. It is in contemplation to establish a national university in the city of Washington. Here is a national library of very valuable books, for the use of congress, and the officers of government.

Commerce. The exports from this district in 1810, amounted to $1,038,103, of which $984,463, were of domestic produce, and 53,640 of foreign. The aggregate tonnage in 1807, was 13,431 tons. Georgetown and Alexandria are the only ports.

Rivers. The Potowmac intersects this district and is navigable, close to the bank, for large ships half a mile above Greenleaf's point and in the channel some distance farther. The Eastern Branch, as it is called, rises in Maryland, and flows about 20 miles. It is chiefly a bay of the Potowmac, and is navigable 4 miles along the bank for the largest ships. Rock creek runs southerly about 16 miles. Tiber, or Goose creek, is a small stream, running through the city. Its source being 236 feet above the level of the Potowmac, it can be made the reservoir of aqueducts for any part of the city. Four Mile Run falls into the Potowmac from the Virginia side, opposite the Eastern Branch.

Canals, Bridges, Turnpike, Road. A canal, connecting Tiber creek with the Eastern Branch, has been partially executed; the tide flows into it 5 or 6 inches deep. Two bridges are built over Rock creek, which divides the city from Georgetown. The bridge near the mouth of the creek has three arches, is about 135 feet in length and 36 wide. The other 650 yards above, is supported by piles, is about 280 feet long and 18 wide. Companies have been incorporated by congress for the purpose of opening a canal, to connect the Potowmac river, with the Eastern Branch, through a part of the city of Washington. Also for erecting a bridge, over the Potowmac, within this district. Also for making a turnpike from Mason's causeway, to Alexandria. A road from this district to New-Orleans, through the Indian territories is making, the distance estimated at about 1000 miles.

VIRGINIA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. LAWS. POPULATION. MILITIA. MANNERS AND CUSTOMS. LITERATURE. CHIEF TOWNS. ROADS. CANALS. MANUFACTURES. COMMERCE.

Extent. THIS state lies between lat. 36 30 and 40 40 N.; and between lon. 75 25 and 83 40 W. Its length, on the southern line of the state, is 440 miles. Its greatest breadth is 290. The number of square miles is estimated at 70,000. A narrow strip of land runs northward between Pennsylvania and the Ohio river; another wedge-like strip passes between Kentucky and Tennessee; and the counties on the eastern shore, are the lower part of a peninsula, separated from the rest of the state by the width of the Chesapeak. Exclusive of these, Virginia is compact.

Boundaries. Bounded N. by Pennsylvania and Maryland; E. by the Atlantic; S. by North-Carolina and Tennessee; W. by the Cumberland mountains and Big Sandy river, which divide it from Kentucky; and N. W. by Ohio river, which divides it from the state of Ohio.

Divisions. The following are the divisions, and number of inhabitants in each, of this state, according to the census of 1810.

Counties.	No. inhabitants.	Counties.	No. inhabitants.
Accomac	15,743	Essex	9,376
Albemarle	18,268	Fauquier	22,689
Amelia	10,594	Fairfax	13,111
Amherst	10,548	Fluvanna	4,775
Augusta	14,308	Frederick	22,574
Bath	4,837	Franklin	10,724
Bedford	16,148	Gloucester	10,427
Berkeley	11,479	Goochland	10,203
Botetourt	13,301	Grayson	4,941
Brooke	5,843	Greenbrier	5,914
Brunswick	15,411	Gransville	6,853
Buckingham	20,059	Giles	3,745
Campbell	11,001	Halifax	22,133
Caroline	17,544	Hampshire	9,784
Charles city	5,186	Hanover	15,082
Charlotte	13,161	Hardy	5,525
Chesterfield	9,979	Harrison	9,958
Cumberland	9,992	Henrico	9,945
Culpepper	18,967	Henry	5,611
Cabell	2,717	Isle of Wight	9,186
Dinwiddie	12,524	James city	4,094
Elizabeth city	3,608	Jefferson	11,851

Counties.	No. inhabitants.	Counties.	No. inhabitants.
Kanahawa	3,866	Powhatan	8,073
King and Queen	10,988	Prince Edward	12,409
King George	6,454	Princess Anne	9,498
King William	9,285	Prince William	11,311
Lancaster	5,592	Prince George	8,050
Lee	4,694	Randolph	2,854
Loudon	21,338	Richmond county	6,214
Louisa	11,900	Rockbridge	10,318
Lunenburg	12,265	Rockingham	12,753
Madison	8,381	Russell	6,316
Matthews	4,227	Shenandoah	13,646
Mecklenburg	18,453	Southampton	13,497
Middlesex	4,414	Spotsylvania	13,296
Monongalia	12,793	Stafford	9,830
Monroe	5,444	Surry	6,855
Montgomery	8,409	Sussex	11,362
Mason	1,991	Tazewell	3,007
Nansemond	10,324	Warwick	1,835
New-Kent	6,478	Washington	12,136
Norfolk county	13,679	Westmoreland	8,102
Northampton	7,474	Wood	3,036
Northumberland	8,308	Wythe	8,356
Nottoway	9,278	York	5,187
Nelson	9,684	City of Richmond	9,735
Ohio	8,175	Norfolk borough	9,193
Orange	12,323	Petersburg	5,668
Patrick	4,695		
Pendleton	4,239	Total 98	974,622
Pitsylvania	17,172		

Name. Queen Elizabeth, in 1584, gave the name of *Virginia* to a much larger tract of country than that included in its present limits, as a memorial that its discovery was made under a virgin queen. Juan Ponce, a Spaniard, as early as 1512, had discovered *Florida*; and the French and Spaniards gave that name to a tract of country of indefinite extent, in which Virginia was included.

History. Sir Walter Raleigh, in 1584, obtained of queen Elizabeth a patent for discovering remote heathen and barbarous lands. An expedition under Philip Amadas and Arthur Barlow set sail in April, and arrived on the American coast on the 4th of July, of that year. They landed at the island of Wocokom, on the 26th of that month, and soon after on the main land of Virginia.

In 1606 king James divided the territory called Virginia into 2 districts, North and South-Virginia. A permanent settlement was made the next year, at Jamestown, under governor Wingfield.

In 1610 lord Delaware was entrusted with the entire government, and furnished large supplies to the colony.

In 1612 the third charter was granted.

In 1613 John Rolf married Pocahontas, daughter of Powhatan, an Indian chief, and three years after carried her to England, where

she died. She left a son, from whom some of the most respectable families in Virginia have descended.

The adventurers, in 1615, had the title to their lands vested in them; before, they had held them as tenants at will.

A large colony came over in 1618, under lord Delaware, who died on the voyage, and the next year the first colonial assembly was convoked at Jamestown.

A colony of 1216 persons arrived in 1620, among whom were 90 girls, "young and uncorrupt," who came over to marry as many of the adventurers. They succeeded so well that 60 more came over the next year. The husbands were obliged to buy them of the company, and gave for them notes, payable in tobacco. The price of a wife was at first 100 pounds of tobacco; it afterwards rose to 150 pounds.

A new form of government was brought over in 1621, and in 1622, 347 of the colonists were massacred by the Indians.

The charter of the Virginia company was vacated in 1624; and the next year Charles I. made the province immediately dependent on the crown.

All the country south of 36 30 was taken from Virginia in 1630, and called Carolina. Maryland was taken from it in 1632.

Severe laws were passed for the suppression of dissenters in 1633. The civil privileges of the colony were entirely restored in 1639.

The province, in 1652, submitted to Cromwell; but, in 1659, before the restoration of Charles II. threw off the government of the protectorate, and reinstated Sir William Berkely, the royal governor. The laws of England were adopted as the provincial laws in 1661. The ancient constitution was restored the next year, and the church of England reestablished.

A Dutch squadron arrived on the coast in 1673, and did great injury to the colonists. Two insurrections took place in 1675, but were suppressed. The next year was the era of Bacon's rebellion, which cost the province 100,000*l.*

The seat of government was removed, from Jamestown to Williamsburg, in 1698; and the province divided into parishes in 1712.

Col. Washington, in 1754, marched with a body of troops to the Ohio against the French and Indians. He surprised and took Fort Du Quesne, (Pittsburg) but was compelled, by a large army, to retire from the fort, and, the next day, to surrender. His troops were allowed the honors of war, and permitted to return home.

In 1755, General Braddock marched against Fort Du Quesne; but in penetrating through the wilderness, he incautiously fell into an ambuscade, and suffered a total defeat. General Braddock was killed, but the enemy not pursuing the vanquished across the river, being eager in plundering the baggage of the dead, a part of his troops were saved by flight, under the conduct of General Washington, at that time a colonel, who then began to exhibit proofs of those military talents, by which he afterwards conducted the armies of America to victory, and his country to independence.

This province was forward in resisting the encroachments of the

mother country, in 1765 and 1769. The constitution of the state was adopted on the 5th of July, 1776. In 1781 the state was made the theatre of the war; and, on the 19th of October, in that year, the British army, under lord Cornwallis, surrendered at Yorktown. This interesting event decided the contest in favor of America, and laid the foundation of the peace which was concluded the following year.

Kentucky was erected into a separate district in 1782, and entirely separated from Virginia in 1786.

Religion. The first settlers in this country were emigrants from England, of the English church. They retained full possession of the country about a century, when other denominations of Christians began to settle here, and have since increased to a large majority of the inhabitants.

The present denominations of Christians in Virginia are Presbyterians, who are the most numerous, and inhabit the western parts of the state; Episcopalians, who are the most ancient settlers, and occupy the eastern and first settled parts of the state. Intermingled with these are great numbers of Baptists, Methodists, and Friends.

There is a very large portion of the inhabitants, particularly in the lower and middle parts of the state, who make no profession of the Christian religion in any of its forms. There are several whole counties, in which there is not a single house for public worship of any kind.

Government. The legislature is called the *general assembly*, and is composed of a *senate* and *house of representatives*. The senate consists of 24 members, who are chosen for 4 years, by districts. One fourth of the senate goes out yearly. A senator must be 25 years of age, and a resident and freeholder within the district. The representatives are chosen annually, two from each county, and one from several cities and boroughs each. They must be freeholders and residents in the county.

The governor is chosen annually by joint ballot of both houses, and can hold the office but 3 years in 7. He has a privy council of 8 members, chosen by joint ballot of both houses. The two houses remove two of its members every 3 years, and appoint two new ones. The council chooses its president, who in case of the death, resignation, or absence of the governor, acts in his stead. The governor and council have the power of pardoning.

Justices of the peace are appointed by the governor and council, and have the power of appointing constables. A county court is established in each county; from which appeals are allowed in cases where the property in dispute exceeds 10*l.* and in all cases where the title of land is in question. The superior courts are a general court, a high court of chancery, and a court of admiralty. The first has 5 judges and the two last 3. The two first are courts of apppeals; the last is a court of original jurisdiction. The first sits four times a year at Richmond; twice as a civil and criminal court, and twice as a criminal court only. The second sits twice a year at Richmond; and the last is held at Williamsburg when-

ever controversy arises. The supreme court consists of the 11 judges of the superior courts, and is a high court of appeals. It sits twice a year at Richmond.

Laws. In 1661, the laws of England were expressly adopted by an act of the assembly of Virginia, except so far as "a difference of condition" render them inapplicable. To these were added a number of acts of assembly, passed during the monarchy, and ordinances of convention, and acts of assembly since the establishment of the republic. The following variations from the British model are worthy of notice.

Debtors unable to pay their debts, and making faithful delivery of their whole effects, are released from their confinement, and their person forever discharged from restraint for such previous debts: but any property they may afterwards acquire will be subject to their creditors. The poor, unable to support themselves, are maintained by an assessment on the titheable persons in their parish. A foreigner of any nation, not in open war, becomes naturalized by removing to the state to reside, and taking an oath of fidelity; and thereby acquires every right of a native citizen. Slaves pass by descent and dower as lands do. Slaves as well as lands were entailable during the monarchy; but by an act of the first republican assembly, all donees in tail, present and future, were vested with the absolute dominion of the entailed subject. Gaming debts are made void, and monies actually paid to discharge such debts (if they exceed 40 shillings) may be recovered by the payer within three months, or by any other person afterwards. Tobacco, flour, beef, pork, tar, pitch, and turpentine, must be inspected by persons publicly appointed, before they can be exported.

In 1785, the assembly enacted, that no man should be compelled to support any religious worship, place, or minister whatsoever, nor be enforced, restrained, molested, or burdened, in his body or goods, nor otherwise suffer on account of his religious opinions or belief; but that all men should be free to profess, and by argument to maintain their opinion in matters of religion; and that the same should in no wise diminish, enlarge, or affect their civil capacities.

In October, 1786, an act was passed by the assembly prohibiting the importation of slaves into the commonwealth, upon the penalty of the forfeiture of the sum of 1000*l.* for every slave. And every slave imported contrary to the true intent and meaning of this act, becomes free.

Population. The following numbers are the results of calculations or actual enumerations made in the respective years.

1600	490	1671	38,000 whites 2,000 blacks	40,000
1617	400			
1618	600	1675		50,000
1623	2,500	1681		14,000 tithables
1640	20,000	1703	25,023 tithables 35,583 women and children	60,606
1660	30,000			

1749		85,000			
1763	70,000 whites 100,000 blacks	170,000	1800	514,674 whites 345,796 slaves 21,679 free bl.	886,149
1790	442,117 whites 292,627 slaves 12,866 free bl.	747,610	1810	551,534 whites 392,518 slaves 30,570 free bl.	974,672

The items of the census of 1810 were as follow:

	males.	females.	total.
Under 16 years of age	140,696	132,922	273,618
Between 16 and 45	104,040	106,062	210,102
45 and upwards	35,302	32,512	67,814
Total	280,038	271,496	551,534

At each of the 8 national enumerations, this state, in point of population, was the first in the union; but, in 1790, its number of whites was inferior to that of Massachusetts; and in 1800 and 1810 to those of Pennsylvania, Massachusetts, and New-York. The increase, in the last ten years, of the number of whites, was 31,860 or $6\frac{1}{10}$ per cent.; that of the number of blacks was 55,603 or $15\frac{2}{15}$ per cent. The immense number of mulattoes in the low country explains this otherwise unaccountable disproportion.

Militia. The militia of this state, consisting of every able bodied freeman between the ages of 18 and 45, is divided into four grand divisions, each of which is commanded by a major general; 19 brigades, each commanded by a brigadier general; making in the whole 108 regiments of infantry, four regiments of cavalry, and four regiments of artillery;* each regiment is composed of two battalions, and commanded by a lieutenant colonel commandant and two majors. The governor is head of the military as well as civil power. The law requires every militia man to provide himself with the arms usual in the regular service; but this injunction has always been indifferently complied with. In the lower country are few arms; in the middle country a fourth or fifth part of them may have such firelocks as they had provided to destroy the noxious animals which infest their farms; and on the western side of the Blue Ridge they are generally armed with rifles.

The number of the militia in 1810, did not much exceed 50,000, and these indifferently armed and disciplined.

The intersection of Virginia by so many navigable rivers, renders it almost incapable of defence. As the land will not support a great number of people, a force cannot soon be collected to repel a sudden invasion.

The United States have purchased a high, rocky point of land, of an indifferent soil, at the confluence of the Shenandoah, and Potowmac, intended as the site of an arsenal of the United States.

Manners and Customs. The inhabitants of Virginia are chiefly planters, living on separate plantations and not in villages. Labor, in the eastern and most populous district, is carried on almost wholly by slaves; who, in many of the counties, are much more nume-

* This was the number of regiments some years ago; the number has doubtless increased since.

rous than the whites. Great numbers of the white inhabitants are thus exposed to habits of idleness, and to the manifold evils and vices which always accompany it. These are here enhanced both in number and degree by the unfortunate possession of nearly absolute power over the persons of the blacks. This operates on the minds of too many as an incentive to cruelty ; and, strange to tell, on others, also, as an incentive to sensuality. The great number of mulattoes in the flat country, in this, and all the southern states, furnish lamentable proofs of the pernicious influence of slavery, and of the divine wisdom of the petition "*Lead us not into temptation.*" A large portion of the respectable inhabitants of these states, are free from this foul and tainted mixture. The law already mentioned, which provides that no man shall be compelled to support any religious worship, place, or minister, and the sequestration, which had previously been made of all the glebe lands in the state belonging to the Episcopal church for public use ; these two measures have done more to root Christianity out of Virginia, than the efforts of a century probably can do to restore it. There are but few places for public worship, of any denomination, in the lower parts of Virginia, and these are small, and have but few attendants. The religious and moral state of the great body of the inhabitants, must of course be deplorable. The poor have little chance of receiving religious instruction themselves, or of educating their children, and the number of whites who cannot write or read is unfortunately great. The division of the inhabitants into rich and poor is also distinctly marked. Duelling is here a prevailing crime among the higher ranks of life ; a crime, which, in the greater part of the union has never met with its just recompence. Severe laws, however, have been made against this* and some other disgraceful vices heretofore prevalent, which, in degree, have checked their pernicious effects.

This state has produced some of the most distinguished characters in the American history ; and, far before all others, him, who, in any age or country, would have been one of the first of great and illustrious men. Three, of four presidents of the United States, have been citizens of Virginia.

Literature. William and Mary college, at Williamsburg, was founded by William III. in 1691, who gave it nearly 2000*l.* sterling, 20,000 acres of land, and a penny a pound on all tobacco exported from Virginia and Maryland. The assembly gave it a duty on liquors imported, and furs and skins exported. The buildings are of brick, sufficient for the indifferent accommodation of 100 students. By its charter it was to be under the government of 20 visitors, who were to be its legislators, and to have a president and six professors, who were incorporated. It was allowed a representative in the general assembly. Under this charter, a professorship of the

* A late law we understand, requires that all persons elected to any civil office in the state, previously to his entering on its duties, shall take an oath in public courts that he has not, since the passing of this law, been concerned directly nor indirectly in any duel ; and that he will not be thus concerned in future.

Greek and Latin languages, a professorship of mathematics, one of moral philosophy, and two of divinity, were established. To these were annexed, for a sixth professorship, a considerable donation by a Mr. Boyle of England, for the instruction of the Indians, and their conversion to Christianity. This was called the professorship of Brafferton, from an estate of that name in England, purchased with monies given. The admission of the learners of Latin and Greek filled the college with children. This rendering it disagreeable and degrading to young gentlemen already prepared for entering on the sciences, they were discouraged from resorting to it, and thus the schools for mathematics and moral philosophy, which might have been of some service, became of very little. The revenues too were exhausted in accommodating those who came only to acquire the rudiments of science. After the revolution, the visitors, having no power to change those circumstances in the constitution of the college which were fixed by the charter, and being therefore confined in the number of professorships, undertook to change the objects of the professorships. They excluded the two schools for divinity, and that for the Greek and Latin languages, and substituted others; so that in 1787 they stood thus—A professorship for law and police—anatomy and medicine—natural philosophy and mathematics—moral philosophy, the law of nature and nations, the fine arts—modern languages—for the Brafferton. There are now six professorships, one of moral philosophy, natural philosophy and the belles lettres; one of mathematics, one of law, one of modern languages, and two of humanity. The philosophical aparatus is complete, and the library extensive.

Measures have been taken to increase the number of professorships, as well for the purpose of subdividing those already instituted, as of adding others for other branches of science. To the professorships usually established in the universities of Europe, it would seem proper to add one for the ancient languages and literature of the north, on account of their connection with our own language, laws, customs, and history. The purposes of the Brafferton institution would be better answered by maintaining a perpetual mission among the Indian tribes; the object of which, besides instructing them in the principles of Christianity, as the founder requires, should be to collect their traditions, laws, customs, languages, and other circumstances which might lead to a discovery of their relation to one another, or descent from other nations. When those objects are accomplished with one tribe, the missionary might pass on to another. The grammar school, which was for a time discontinued, has been revived in the college. There are about 50 or 60 boys in this school, who are instructed by two professors, and an usher. The annual expense of their board, washing, and tuition, is about twenty guineas.

Colleges are established, and in a respectable situation, in Prince Edward county, called "Hamden Sidney college," and at Lexington, called Washington college. This seminary, by the liberality of individuals, has a library, philosophical apparatus, and buildings to accommodate 50 or 60 students. In 1796 it was endowed by

General Washington with one hundred shares in the James river company. These shares, which are estimated at 6 or 8 thousand pounds currency, it is expected will soon produce sufficient to increase the library and buildings, to maintain a competent number of masters and professors.

There are several academies in Virginia—one at Alexandria—one at Norfolk—one at Hanover, and others in other places.

A plan was devised some time since by a committee of the legislature to establish common and grammar schools throughout the state on a new plan; but we believe it has met with little success.

Chief Towns. Virginia is not, like New-England, divided into townships; and there are few towns of considerable size, in this or any of the southern states.

Richmond is the seat of government for the state, and is situated on the N. side of James river, just at the foot of the falls. The houses are built on two hills; the courses of which make right angles with that of the river; and in the valley between them. Most of the houses stand in the valley, on the western hill, and at its fort near the river. Those lately built are handsome. A creek runs through the valley, over which is a convenient bridge. Another of boats between 300 and 400 yards in length, is thrown over the James, at the foot of the falls which connects Richmond with Manchester. The public buildings are an Episcopal church, a handsome statehouse, a courthouse, and gaol. It had a theatre, which, in December, 1811, was consumed during an exhibition, and with it the governor of the state, and nearly 100 others, among the most respectable in the state At the W. end of the town are several mills, one of which is not inferior to any in the United States. Near the mills is a distillery and brewery. The falls above the bridge are 7 miles in length. A noble canal is cut on the N. side of the river, which terminates in a bason of about two acres, in the town of Richmond. From this bason to the wharves in the river, will be a land carriage of about a mile. The opening of this canal promises the addition of much wealth to Richmond. Vessels of burden lie at City Point, 20 miles below, to which the goods from Richmond are sent down in boats. It is 626 miles from Boston, 374 from New-York, 176 from Baltimore, 278 from Philadelphia, 247 from Fayetteville, 497 from Charleston, and 662 from Savannah. N. lat. 37 40, W. lon. 77 50. Population in 1790, 4000; in 1800, 5739; and, in 1810, 9735.

Norfolk is on the E. side of Elizabeth river; which is here from 350 to 400 yards wide, and has 18 feet water up to the town. The harbor is safe, commodious, and large enough to contain 300 ships. It contained, in 1790, 2959 inhabitants; in 1800, 6746, and in 1810, 9183. Lat. 36 55 N. 76 23 W. 114 miles E. S. E. of Richmond.

Petersburg is on the S. E. bank of the Appomattox, 25 miles S. of Richmond, and just below the falls. It contains an Episcopal church, a courthouse, and gaol. Its situation is low, and rather unhealthy. It was the residence of the famous Indian princess, Pocahontas, from whom have descended the Randolph and Bowl-

ing families in Virginia. Petersburgh has a thrifty back country, and is the emporium of a considerable district of North-Carolina, as well as of the southern part of Virginia. It has exported in a single year to the value of nearly $1,500,000. Population in 1810, 5668. Lat. 37 14 N. lon. 78 8 W. 25 miles S. of Richmond.

WILLIAMSBURG is situated between two creeks, branches of James and York rivers. The distance of each landing place is about a mile from the town. The streets cross each other at right angles, and there is a handsome square of about 10 acres in the centre of the town. Through this runs the principal street, from E. to W. about a mile in length, and 100 feet wide. The public buildings are an Episcopal church, a college, capitol, courthouse, gaol, and hospital for lunatics. Population in 1810, including James city, 4094; of these about 1500 are in Williamsburg. Lat. 37 16 N. lon. 76 48 W. 60 miles E. of Richmond.

Mount Vernon, the celebrated seat of the beloved and celebrated WASHINGTON, is pleasanly situated on the Virginia bank of the river Potowmac, where it is nearly two miles wide, and is about 280 miles from the sea, and 127 from Point Look Out, at the mouth of the river. It is nine miles below Alexandria. The area of the mount is 200 feet above the surface of the river; and after furnishing a lawn of five acres in front, and about the same in rear of the buildings, falls off rather abruptly on those two quarters. On the north end it subsides gradually into extensive pasture grounds; while on the south it slopes more steeply, in a shorter distance, and terminates with the coach house, stables, vineyard, and nurseries. On either wing is a thick grove of different flowering forest trees. Parallel with them, on the land side, are two spacious gardens, into which one is led by two serpentine gravel walks, planted with weeping willows and shady shrubs. The mansion house itself appears venerable and convenient. A lofty portico, 96 feet in length, supported by eight pillars, has a pleasing effect when viewed from the water; the whole assemblage of the greenhouse, schoolhouse, offices, and servant's halls, when seen from the land side, bears a resemblance to a rural village. On the opposite side of a small creek to the northward, an extensive plain, exhibiting cornfields and cattle grazing, affords in summer a luxuriant landscape; while the blended verdure of woodlands and cultivated declivities, on the Maryland shore, variegates the prospect in a charming manner. This great man died, at this seat, Dec. 14, 1799, and left his country in tears.

YORKTOWN, 13 miles eastward from Williamsburg, and 14 from Monday's point at the mouth of the river, is a place of about 100 houses, situated on the south side of York river, and contains about 700 inhabitants. It was rendered famous by the capture of lord Cornwallis and his army, on the 19th of October, 1781, by the united forces of France and America.

LEXINGTON stands on the post road, one mile west of the north branch of James river. It is the county town of Rockbridge, is a flourishing place, and has an elegant brick meetinghouse, a courthouse, a gaol, and about 80 dwelling houses. The federal courts

for the western district are held here. The river is navigable to this place for boats of 5 or 6 tons.

In Albemarle county is MONTICELLO, the seat of the late president JEFFERSON. The summit of the mount, where his house stands, is 500 feet above the circumjacent country. The prospect is extensive and charming. Mr. Jefferson has more than 1100 acres of cultivated land. In 1797, he had 320 acres of wheat, 160 of corn, 320 of clover, 320 of peas and potatoes, and 120 workmen. He has a manufactory of nails: his negro boys make a ton of nails in a month.

FREDRICKSBURG, in the county of Spotsylvania, is situated on the south side of Rappahannoc river, 110 miles from its mouth; and contains about 200 houses principally on one street, which runs nearly parallel with the river, and 1500 inhabitants.

Roads. Little attention has been paid to roads and bridges in this state, or in any of the states S. of the Potowmac. The main post road is very defective; the inconvenience and danger arising from the want of bridges on it are sensibly felt. The only turnpike completed in 1808, was one from Manchester, the town opposite Richmond, westward 12 miles, to the coal mines of Falling creek. It is gravelled, is 36 feet wide, and cost $50,000. Another has been commenced from Richmond to Ross's coal mine; and another from Alexandria northwestward to Middleburgh. These are probably now finished.

Canals. A part of the Chesapeak and Albermarle canal is in this state. There are several canals on James river. That at Richmond is now completed. Four canals have been opened on the Potowmac. These have already been described.*

The Shenandoah in the last 8 miles of its course falls 80 feet. Six different canals, 20 feet wide, 4½ deep, and extending altogether 2400 yards, have been opened around the most difficult falls, and rendered the river passable. The distance on the Appomattox, from the upper end of the falls to tide water at Petersburg, is 5 miles; and the descent upwards of 30 feet. The canal is 16 feet wide, and 3 deep, and admits boats of 6 tons. The capital amounts to upwards of $60,000.

Manufactures. Before the war, the inhabitants of this state paid but little attention to the manufacture of their own clothing. They used to import as much as *seven eighths* of their own clothing; they now are supposed to manufacture *three quarters* of it. Considerable quantities of iron are manufactured in different parts of this state. Northwest of the Blue Ridge are numerous manufactories of cast and wrought iron. To these, we may add the manufacture of lead; besides which, they have few others of consequence. The people are much attached to agriculture, and prefer foreign manufactures.

A manufacture of small arms has been established at Richmond by the state, on an extensive scale. It is supplied with iron, coal, &c. by water. The materials are landed at the doors of the build-

* Page 214.

ings, which stand on the margin of the canal, whence the works derive an inexhaustible supply of water, by means of which the greater part of the labor is performed.

Commerce. The exports from Virginia in 1804 amounted to $5,790,001; and in 1810 to $4,822,611, of which $4,632,829 were of domestic produce, and $189,782 of foreign. Tobacco is the capital article of export, and next to that is wheat flour. Pork, maize, lumber, tar, pitch, turpentine, coal, and furs are the other chief articles. The aggregate tonnage of this state for the year 1805 was 71,488 tons.

The exports from this state, before the revolution, *communibus annis*, was estimated by Mr. Jefferson, in his notes, at about $2,900,000. In 1758 the state exported 70,000 hogsheads of tobacco, which was the greatest quantity ever produced in the state in a single year.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. SWAMP. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITIES.

Climate. THE temperature of the sea coast is warmer than that of the interior, and the warmth decreases gradually to the summit of the Allegany. The mean heat of 5 years 1772—1776) was 60¾° of Fahrenheit. The greatest average heat of any one day, during that time was 82½°; and the least 38½°. The extremes of temperature were 98° above, and 6° below 0 of Fahrenheit. Sudden changes of temperature are common. The mercury has been known to descend from 92° to 47° in 13 hours. The S. W. wind is the most common on the coast in all seasons. The N. wind is the next most prevalent on the coast, and after that the N. E. the E. and the N. W. The S. wind blows less frequently on the coast than winds from any of the 8 points. In the interior the N. W. wind is the most prevalent at all seasons, and next to that the S. W. The N. E. wind is damp, heavy, chilling, and oppressive to the spirits. The N. W. is dry, cool, elastic, and animating. E. and S. E. breezes come on generally in the afternoon. Formerly they did not penetrate beyond Williamsburg; now they are frequent at Richmond, and sometimes reach the mountains.

The average annual fall of rain during the period already mentioned, at Williamsburg, was 47·038 inches; of which 9·153 inches fell in August, more than double the quantity of any other month. In February, the rain was least plenteous. The descent, in the summer, was 18·4 inches; in autumn, 11·01; in winter, 8·118; and in spring, 10·5. In summer and September, it was 23·16, almost as much as during the other 8 months. Though the quanity of rain is greater here than in the middle parts of Europe, yet the number of clear days is nearly double. Snows are not fre-

quent, and rarely lie more than two or three days, below the mountains.

June is the healthiest month. The weather is then dry and but little liable to change. July, August, and September are the proper rainy season, and are the most unhealthy. In October and November the weather is pleasant and serene.

Face of the Country. In Virginia, as in all the middle and southern states, the great rivers, except the Hudson, the Apalachicola, and the Mobille, run nearly at right angles with the course of the mountains; while their upper branches run between them, and parallel with them. The first ridge of mountains is, in this state, generally about 150 miles from the sea. Beyond that quite to the western boundary of the state, the country is mountainous; the ridges of the Allegany occupying a greater breadth of country in Virginia, than in any other state. Between the various ridges, however, there are long valleys parallel with them, often of considerable breadth, and containing some of the best and most pleasant land in Virginia. Below the mountains, the country is a succession of hills and valleys as far as the lowest falls of the rivers. These, in the Potowmac, are 3 miles above the city of Washington; in the Rappahannoc at Fredericksburg; in the James at Richmond; in the Appomatox a little above Petersburg, and in the Roanoke about 10 miles above Halifax in North-Carolina. The width of the tract below these falls in a strait line varies from 110 to 130 miles. This tract is called the Low country, and is chiefly a sandy plain, covered with the long leaved or pitch pine. It seems from various appearances to have been once washed by the sea. The land beween York and James rivers is very level, and its surface about 40 feet above high water mark. It appears from observation, to have risen to its present height at different periods far distant from each other, and that at these periods it is washed by the sea; for near Yorktown, where the banks are perpendicular, you first see a *stratum*, intermixed with small shells resembling a mixture of clay and sand, about five feet thick; on this lie, horizontally, small white shells, cockle, clam, &c. an inch thick; then a body of earth similar to that first mentioned, 18 inches thick; then a layer of shells and another body of earth; on this a layer of three feet of white shells mixed with sand, on which lie a body of oyster shells six feet thick, which were covered with earth to the surface. The oyster shells are so united, by a very strong cement, that they fall, only when undermined, and then in large bodies from one to twenty tons weight. They have the appearance of large rocks on the shore.*

These appearances continue in a greater or less degree in the banks of James river, 100 miles from the sea; the appearances then vary, and the banks are filled with sharks' teeth, bones of large and small fish petrified, and many other petrifactions, some resembling the bones of land and other animals, others, vegetable substances. These appearances are not confined to the river banks, but are seen in various places in gullies at considerable distances from the rivers. In one part of the state for 70 miles in length, by sinking a

* Gen. Lincoln.

well, you apparently come to the bottom of what was formerly a water course. And even as high up as Botetourt county, among the Allegany mountains, there is a tract of land, judged to be 40,000 acres, surrounded on every side by mountains, which is entirely covered with oyster and cockle shells, and from some gullies, they appear to be of considerable depth. A plantation at Day's point, on James river, of as many as 1000 acres, appears at a distance as if covered with snow, but on examination the white appearance is found to arise from a bed of clam shells, which by repeated ploughing have become fine and mixed with earth.

Soil and Agriculture. The soil in the tide-water country is generally poor. Its chief productions are maize, oats, and peas. Wheat is raised in some parts of it, a little rice also in the southern swamps. Between tide-water and the mouuntains the land is principally good. This is the tobacco country. Great quantities of wheat are also raised here. This grain has been almost wholly substituted for tobacco in the northern upland counties, and sufficient cotton is raised for home consumption in those S. of James' river. The southeastern counties produce cider and cider brandy in large quantities; and those on the eastern shore abundance of peach brandy. Among the mountains the farmers raise large numbers of cattle and hogs; and westward of them, hemp is becoming the staple production. Maize is cultivated throughout the state.

Rivers. The Ohio is the N. W. boundary for many miles; and the Potowmac the N. E. through its whole length. James river runs wholly in this state; the Roanoke partly in Virginia, and partly in North-Carolina; the Monongahela and Great Kanhawa chiefly in Virginia. The Youhiogany barely rises here. All these have been described.*

The Rappahannoc rises in the Blue Ridge, and pursues a S. E. course of 200 miles to the Chesapeak, emptying between Windmill and Stingray points. It has 4 fathoms water to Hobb's Hole, and 2 from thence to Fredericksburg, 110 miles from its mouth. The ravine of the river, at the falls just above Fredericksburg, is on both sides, so abrupt, rocky, and irregular, that a canal around them would be attended with immense expence.

York river rises in the easternmost ridge, which is here called the South mountain. It is formed by the Pamunkey and Mattapony, which unite at Delaware. The Pamunkey, the southern and largest branch, is composed of the N. and S. Anna. The course of the York is S. E. to Yorktown, and thence N. E. 11 miles to the Chesapeak, into which it falls at Toes point. At Yorktown it affords the best harbor in the state for vessels of the largest size. It holds at high tide, 4 fathoms water, thence 25 miles to the mouth of the Poropotank, where it is 1½ mile wide, and the channel only 7½ fathom. Thence to the Mattapony it has 3 fathom; and the same as far up the Pamunkey as Cumberland; whence it is navigable for loaded flats to Brockman's bridge, 50 miles above Hanover. The Mattaponey has 3 fathoms to within 2 miles of Fraser's ferry, and thence 2½ for 5 miles. It is capable of navigation for

* Pages 223, 227.

loaded flats 70 miles above its mouth. The whole length of the York is about 180 miles.

The Piankatank runs S. E. about 40 miles between Rappahannoc and York river, and receives small craft 8 miles.

The Shenandoah, after a N.E. course of 250 miles along the western skirts of the Blue Ridge, unites its waters with the Potowmac at Harper's Ferry, just above its passage through the mountains. From Port Republic to within 8 miles of Harper's ferry, a distance of near 200 miles, the Shenandoah is naturally navigable. The canals near its mouth have been described.

The Rivanna, a northern branch of the James, runs S. E. 40 miles, and empties near Columbia. It is navigable from the South mountain to its mouth, 22 miles.

The Chickahominy, a lower branch on the same side, runs 60 miles in the same direction. A bar at its mouth has only 12 feet water. Vessels of that draught ascend the river 8 miles; those of 10 feet 12 miles; and those of 6 tons burthen 32 miles.

The Appomatox, the chief southern branch of the James, runs N. E. S. E. and E. about 120 miles. Vessels of 15 feet draught go up to Broadways, and those of 4 feet to Petersburg. Above the falls, which are now canalled, and which are 5 miles from Petersburg, it has been rendered navigable for boats to Farmville, 80 miles above Petersburg.

Blackwater, Nottaway, and Meherrin rivers form the Chowan. They run chiefly in Virginia.

The Great Kanhawa is a river of considerable note for the fertility of its lands, and still more, as leading towards the head waters of James river. Its head waters interlock with those of Holston and Roanoke, and for a considerable distance from its source it is called New river. It is doubtful whether its great and numerous rapids will admit a navigation, but at an expence to which it will require ages to render its inhabitants equal. The great obstacles begin at what are called the Great falls, 90 miles above the mouth, below which are only five or six rapids, and these passable with some difficulty even at low water. From the falls to the mouth of Greenbriar is 100 miles, and thence to the lead mines 120. It is 280 yards wide at its mouth. The principal branches of the Great Kanhawa, as you ascend it, are Louisa or Coal river from the west —Elk, 60 miles from its mouth—Gaully river, more than 100—Greenbriar, nearly 200. The three latter from the east.

The Little Kanhawa is 150 yards wide at the mouth. It affords a navigation of ten miles only. Perhaps its northern branch, called Junius creek, which interlocks with the western waters of Monongahela, may one day admit a shorter passage from the latter into the Ohio.

Big Sandy river heads very near Cumberland river in Cumberland mountains. It runs N. about 100 miles, and falls into the Ohio opposite Galliopolis, where it is 60 yards wide. It is the boundary of Virginia and Kentucky, and is navigable 60 miles for loaded batteaux.

The Guiandot runs N. N. W. 80 miles, and may be navigated by canoes 50.

Several of the head waters of the Tennesse are found in this state.

Swamp. A considerable part of Dimal swamp lies in Virginia.

Mountains. The mountains of this state are all in ridges, running in a N. E. direction. These are all parts of the Allegany or Apalachian mountains. The first ridge is properly called the South mountain; though its different parts, as divided by the great rivers, have received various names. This ridge gives rise to the Appomattox and the York; and is broken by the two branches of the Roanoke, by the James, the Rivanna, the Rappahannoc, and the Potowmac. Next to this is the Blue ridge which is parallel with it, and lies about 30 miles farther west. Its highest summits are the peaks of Otter, about 20 miles from James river, which are thought to be 4000 feet high, and are the most elevated land in the state. Near the southern line of the state, it bends westward, and unites with the Allegany ridge. It gives rise to the Rivanna, and the Rappahannoc; and is broken by the Staunton, the James, and the Potowmac. Between the Blue ridge and the Allegany are the Short Hill, the House or North mountains, the Panther Gap, and the Warm Spring or Jackson's mountains. They are generally low, are broken by the James and Potowmac, and all unite with the Allegany ridge. This last is the spine of the country, is broken by no river but the Susquehannah, and is generally about 3000 feet high. Its course is nearly N. in Virginia, as far as the angles of the James and Kanhawa; and afterwards about N. N. E. The Dan, the Staunton, the James, and the Potowmac, flow from it eastward; and the Youhiogany, the Cheat, and the Greenbriar, westward. Its distance from the coast is in this state from 230 to 260 miles: and from the Blue ridge in the N. about 60. Between the Allegany ridge and the Ohio are several ranges, irregular in their course, and less accurately described than those farther east. The longest and most connected of these is the Laurel ridge; which, in consequence of its windings, runs a greater distance in Virginia than any of the rest. It gives rise to the Monongahela, and is broken by the Kanhawa. The Cumberland mountains are the boundary between Virginia and Kentucky for about 80 miles. Their course is N. E. and they run, nearly parallel with the Laurel ridge, through the state.

Botany. The trees, shrubs, and plants of Virginia are arranged by Mr. Jefferson under 4 classes; 1. Medicinal; 2. Esculent; 3. Ornamental, and 4. Useful for fabrication. Under the first class are included senna, arsmart, clyvers, lobelia, Palma Christi, stramonium, common, Syrian, Virginian, and Indian mallow, Virginian marshmallow, Indian physic, ipecacuanha, pleurisy root, Virginia, black, and Seneca snake root, valerian, gentian, ginseng, angelica, and cassava. The second class contains the tuckahoe, Jerusalem artichoke, long potatoes, granadillas, panic, Indian millet, wild oat, wild pea, lupine, wild hop, wild cherry, Cherokee and wild plums, crab apple, red mulberry, persimmon, sugar maple, shagbark and common hiccory, Illinois nut, black and white walnut, chesnut, chinquapin, hazlenut, grapes, strawberries, whortleberries, wild gooseberries, cranberries, black raspberries, blackberries, dewber-

ries, and cloudberries. The third class comprises the plane tree, white and black poplar, aspen, linden or lime, red-flowering maple, horse chesnut, catalpa, umbrella, swamp laurel, cucumber tree, Portugal, red, and dwarf rose, bay, western laurel, wild pimento, sassafras, locust, honey locust, dogwood, snowdrop tree, barberry, redbud tree, holly, cockspur, hawthorn, common and evergreen spindle tree, itea Virginica, elder, papaw, candleberry myrtle dwarf laurel, ivy, trumpet and upright honeysuckle, yellow jasmine, calycanthus, American aloe, sumach, poke, and long moss. Under the fourth class are comprised the reed, Virginia hemp and flax, pitch, yellow, and white pine, spruce, hemlock, *arbor vitæ*, juniper, cypress, white cedar, black, white, and red willow, chesnut, black-jack, ground, and live oaks, black and white birch, beech, ash, New-England ash, elm, willow, and sweet gum.

Tobacco, maize, round potatoes, pumpkins, cymlings or cucumbers, and squashes, were found here by the first settlers.

Of cultivated fruits the *gardens* yield muskmelons, watermelons, tomatas, okra, pomegranates, figs, and the esculent plants of Europe; and the *orchards* apples, pears, cherries, quinces, peaches, nectarines, apricots, almonds and plums.

Zoology. We have seen no list of the wild animals of Virginia. Great attention has here been paid to the breed of horses. This is the only good effect of horse racing; an amusement very common in this state, and fraught with incalculable evil to the morals of the community. The cattle of the low country are subject to a disease which destroys great numbers of them. It is said to have been brought, in some hides, from the Havanna to South-Carolina, and has advanced northward to Virginia. The oxen from the more northern states, employed at the seige of Yorktown, in October, 1781, almost all died, sometimes 40 of them in a night.

Mineralogy. A single lump of *gold* ore has been found near the falls of the Rappahonnoc, which yielded 17 dwt. of extraordinary ductility. Terry's gold mine in Buckingham county it is thought will be one of the richest gold mines in the world. There has been no search yet made by digging. The gold is found both pure and mixed on the surface of the ground. There are valuable *lead* mines on the Kanhawa, opposite the mouth of Cripple creek, and 25 miles from the North-Carolina boundary. The proportion is from 50 to 80 pounds of pure metal to 100 pounds of washed ore. The most common is 60 pounds to the 100 pounds. The ore is very abundant. A *copper* mine was opened in Amherst county, on the W. side of James river, and another in Bedford county on the opposite side. They are not now wrought. Twelve *iron* mines are now open; four are on James river, and two in the northern part of the state in the valley west of the Blue ridge. *Black lead* abounds in Winterham, in the county of Amelia. The country, on both sides James river, from 15 to 20 miles above Richmond, and for several miles north and south, abounds in mineral coal of an excellent quality. The pits which have been opened lie 150 or 200 feet above the bed of the river, and are little incommoded by water. It is very abundant, also, W. of the mountains. One

emerald has been found here; *amethysts* are frequent, and *rock crystal* common. Good *marble* abounds on the N. side of the James river, at the mouth of the Rockfish; some entirely white, but generally variegated with red, blue, and purple. This marble is part of a vein of limestone, which commences in Prince William county, and running S. W. crosses the Rivanna, 5 miles below the South mountain, and thence proceeds to the mouth of the Rockfish. It is no where more than 100 yards wide. Limestone is found every where W. of the Blue Ridge.

Mineral waters. There are two springs near Bath, between Jackson's river and mountains. The warm spring issues with a bold stream sufficient to turn a mill, and to keep the water of its bason, which is 30 feet in diameter, at the temperature of 96°. The waters relieve rheumatisms and are strongly impregnated with sulphur. The hot spring, 6 miles from the warm, is much smaller. Its temperature is 112°. The waters have the same properties with the other in a stronger degree. They are most effectual in summer, and are chiefly visited in July and August.

The Sweet springs are at the eastern foot of the Allegany, in Botetourt county, and 42 miles from the warm spring. The water has a temperature of 70° and is highly impregnated with carbonic acid.

There is a sulphureous spring in Greenbriar.

Salt springs have been found in Greenbriar. By digging, plenty of very strong salt water is found. Near Kanhawa court house there is a salt spring, from which considerable salt has been made.

Natural Curiosities. On the bank of Elk river, 7 miles from its mouth, and 67 above that of the Kanhawa, there is a hole in the earth, of the capacity of 30 or 40 gallons. From its mouth issues a strong current of bituminous vapor. If a lighted torch is held within 18 inches of the hole, the vapor takes fire, and a column of flame rises 4 or 5 feet high, and 18 inches in diameter. The flame is unsteady, has the density of burning spirits, and smells like pit coal. It sometimes goes out in 20 minutes, and at others lasts 3 days. There is a similar hole on Sandy river. The flame rises from it in a column 3 feet high, and of 12 inches diameter

The mention of uncommon springs leads to that of syphon fountains. There is one of these near the intersection of lord Fairfax's boundary with the North mountain, not far from Brock's Gap, on the stream of which is a grist mill, which grinds two bushels of grain at every flood of the spring. Another near the Cowpasture river, a mile and a half below its confluence with the Bullpasture river, and 16 or 17 miles from the hot springs, which intermits once in every 12 hours. One also near the mouth of the North Holston.

After these may be mentioned the natural well, on the lands of a Mr. Lewis, in Frederick county; it is somewhat larger than a common well; the water rises in it as near the surface of the earth as in the neighboring artificial wells, and is of a depth as yet unknown. It is said there is a current in it tending sensibly downwards. If this be true, it probably feeds some fountain, of which

it is the natural reservoir, distinguished from others, like that of Madison's cave, by being accessible. It is used with a bucket and windlass, as an ordinary well.

Madison's cave lies W. of the Blue ridge, near the intersection of the Rockingham and Augusta line with the S. fork of the southern branch of the Shenandoah. It is in a hill about 200 feet high, the side of which towards the river is nearly perpendicular. The entrance, is on this side, about two thirds of the way up. The cave extends into the earth about 300 feet, branching into subordinate caverns sometimes ascending, but generally descending. It terminates in two places at basons of water of unknown extent, which are nearly on a level with the river. The roof is of solid limestone from 20 to 50 feet high; and, with the sides, is covered with incrustations of carbonat of lime. Stalactites also depend from the roof, and stalagmites rise in various places from the floor. Some of these have met, and formed solid pillars of white carbonat of lime.

There is a cave in Frederick county, near the North mountain. The entrance is on the top of an extensive ridge, and is a descent of 30 or 40 feet as into a well. At the bottom of this, the cave extends nearly horizontally about 400 feet, with a breadth of from 20 to 50, and a height of from 5 to 12.

The *Blowing cave* is in the Panther Gap ridge, between Cow and Calfpasture rivers, tributaries of the James. It is in the side of a hill, is about 100 feet in diameter, and emits constantly a current of air of sufficient force to keep the weeds prostrate to the distance of 20 yards. This current of air is strongest in dry frosty weather, and weakest in long seasons of rain. There is another cave of this kind in Cumberland mountain, a mile from the Tennessee line.

There is a cave in Carter's mountain, of some celebrity; of which we have no particular description.

In the county of Monroe, near Kanhawa, there is a remarkable subterranean passage, extending upwards of 2 miles entirely through the base of a high mountain. The earth on the bottom of the cave is strongly impregnated with nitre.

The passage of the Potowmac, immediately after its junction with the Shenandoah, through the Blue ridge, is a singular and highly interesting spectacle. The river here descends 15 feet, and rolls between its walls of rock with the wildness and rapidity of a cataract. The mountains on each side are nearly perpendicular, and appear to have been separated by some great convulsion of nature.

There is a natural bridge in Rockbridge county, over Cedar creek, a branch of the James, which here flows in a narrow, deep ravine, between two hills of rock. The bridge is an immense arched rock of limestone, 40 or 50 feet thick, thrown across the top. The bases of its abutments are from 48 to 70 feet apart, the mean distance being about 60. One of the abutments is nearly perpendicular; the other falls back, so that the top of the arch is from 80 to 90 feet wide. The height of the bridge is 210 feet from the

water. In the middle, it is 65 feet in breadth, but much wider at the ends. The rocks which form the ravine are irregular and craggy, extending of the same height several hundred yards, both above and below the bridge. The ravine itself is crooked, winding like an ill formed S.

In the county of Lee, in the S. W. corner of the state, there is a similar bridge over Stock creek, 3 miles above its entrance into Clinch river, and a few miles from the Tennessee line. The ravine, at the bottom of which the creek flows, is walled on both sides with solid rock; and, at the bottom, is from 35 to 55 feet wide, but much broader at the top. The bridge extends from the entrance 406 feet in a straight line; thence at right angles 300 feet, when it is within 80 feet of the other side of the ravine; and thence, at a very acute angle, 340 feet farther; making a total length of 1046 feet. The perpendicular height of the bridge above the water is 339 feet. It fronts to the S. W. and its summit on that side projects 87 feet beyond the base. The bottom of the bridge is regularly arched. The creek heads nearly 4 miles above the bridge, and is sometimes swelled by rains so as to rise 15 or 18 feet perpendicularly.

Amen's cave, 16 miles from Staunton, is divided into several large apartments, in which are curious petrifactions, or crystallizations, in the form of images and statues, from the dwarf up to the giant, who stands with out stretched arms in a threatening attitude. One of the large appartments in this cave is called *Washington's room*, in which is a fine statue, which bears the name of WASHINGTON. Thus, it seems, the genii of this cave have done that for this hero and statesman, which the legislators of his native country have refused ! !*

KENTUCKY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. BANKS. MANNERS AND CUSTOMS. LITERATURE. TOWNS. ROADS. CANAL. MANUFACTURES. COMMERCE.

Extent. THIS state lies between 36 30 and 39 10 N. lat.; and between 82 50 and 89 20 W. lon. Its length, on the southern line, is 300 miles. Its greatest breadth is 180 miles, and its least 40. The Ohio winds along the whole of its northern side. The number of square miles is 50,000.

* Wilson's letter to general Pinckney, accompanied with curious specimens of these petrifactions.

Boundaries. The Ohio, on the N. separates this state from the Indiana and Illinois territories, and from a part of the state of Ohio; Big Sandy river and Cumberland mountains separate it, on the E. from Virginia; Tennessee lies on the S. and is divided from Kentucky by the parallel of 36 30; the Missisippi, on the W. separates it from Louisiana.

Divisions. This state is divided into 54 counties.

Counties.	Population.		Chief towns.
	in 1800.	in 1810.	
Adair		6,011	Columbia
Barrin	4,784	11,286	Glasgow
Boone	1,534	3,008	
Bracken	2,382	3,706	Augusta
Breckenridge	758	3,430	
Bourbon	12,356	18,000	Paris
Butler		2,181	
Bullet	3,446	4,311	
Clarke	7,523	11,519	Winchester
Casey		3,285	Liberty
Campbell	1,797	3,473	Newport
Christian	2,318	11,020	Hopkinsville
Cumberland		6,191	Burksville
Clay		2,398	
Caldwell		4,268	
Estle		2,082	
Fayette	12,233	21,370	Lexington
Franklin	4,450	8,013	Frankfort
Fleming	4,893	8,947	
Floyd	472	3,485	Prestonsville
Gallatin	1,078	3,507	Port William
Greenup		2,369	
Green	6,025	6,735	Greensburg
Grayson		2,801	
Garrard	6,083	9,186	Lancaster
Henry	3,258	6,777	Newcastle
Harrison	4,263	7,752	Cyntheana
Henderson	1,263	4,703	Henderson
Harden	3,597	7,531	Elizabethtown
Hopkins		2,964	Madisonville
Jessamine	5,438	8,377	Nicholasville
Jefferson	8,395	13,399	Louisville
Knox	1,119	5,875	Barboursville
Livingston	2,787	3,674	Smithland
Lewis		2,357	
Lincoln	8,555	8,676	
Logan	5,690	12,123	Russellville
Mason	11,405	12,459	Washington
Mercer	9,242	12,630	Danville
Madison	10,380	15,540	Richmond
Muhlenburg	1,517	4,181	Greenville
Montgomery	6,999	12,975	Mountsterling

Counties.	Population. in 1800.	Population. in 1810.	Chief towns.
Nicholas	2,863	4,898	
Nelson	9,087	14,078	Bardstown
Ohio	1,121	3,792	Hartford
Pulaski	3,361	6,897	
Pendleton	1,573	3,061	Falmouth
Rock Castle		1,731	
Scott	7,659	12,419	Georgetown
Shebby	8,929	14,877	Shebbyville
Wayne		5,430	Monticilio
Washington	8,887	13,248	Springfield
Warren	4,645	11,937	Bolin Green
Woodford	6,452	9,650	Versailles
Total	220,959	406,511	

Kentucky is entitled to send 10 representatives to congress.

Name. The name of this state is derived from Kentucky river, a branch of the Ohio.

History. This country was first explored by Col. Daniel Boone in 1770. The first family settled in it in 1775. It was erected into a separate county by Virginia in 1777; and into a separate district in 1782. In 1785 a convention was formed for the purpose of procuring an entire separation from Virginia. This was effected the following year. It continued an independent district till June 1, 1792, when it was received into the union, as a member of the United States. The first settlers were exposed to the attacks of the Indians, till general Clarke, in 1778, scoured the western wilderness, and took all their posts, as well as those of the French and English.

Religion. There are three prevailing denominations of Christians in Kentucky, Presbyterians, Baptists, and Methodists. The Baptists are the most numerous. Great numbers of them have embraced antimonian sentiments; and of course pay little regard to the sabbath, or to the religious education of their children. It is said that some of their religious teachers are "converted, educated, and introduced into the pulpit in the course of a month." The Presbyterians are the second denomination in point of numbers. They have 50 clergymen, who are generally men respectable for their learning and piety, of whom about 40 are attached to the general assembly of the Presbyterian church, and 10 to the associate reformed synod of Kentucky. The doctrines of these last, as well as those of the first, with some exceptions, are strictly calvinistic. The Methodists are considerably numerous, and are in principle Arminians.

There are a few Catholics, and still fewer Episcopalians. The Catholics have a bishop at Bardstown. He has scarcely any priests in his diocese.

In Kentucky the laws make no provision for the support of religion. This fact accounts for the great numbers of the inhabitants who profess no religion.

Government. The legislature is called the *general assembly*, and consists of a senate and house of representatives. The senators are chosen by districts, and hold their seats 4 years. One fourth of their number are rechosen annually. A member must be a citizen of the United States, and 35 years of age; must have resided in the state the 6 preceding years, and the last year in the district. Their number cannot exceed 38. The representatives are chosen annually on the first Monday of August, chiefly by counties, and in a few instances by towns. They cannot exceed 100 in number. A member of the house must be a citizen of the United States, and 24 years of age; and must have resided the two preceding years in the state, and the last of them in the county or town. The assembly convenes on the first Monday of November.

The governor is chosen by the people once in 4 years, and is ineligible the succeeding 7. He must be 35 years of age, and a citizen of the United States; and must have resided in the state the 6 preceding years. The lieutenant governor is chosen for the same period, in the same manner, and must possess the same qualifications. He is president of the senate. No bill, to which the governor dissents, can become a law, unless, upon a reconsideration, a majority of both houses agree to it.

Population. The population of this state was in the year

1790	61,133 whites 12,430 slaves 114 free bl.	73,677	1810	324,237 whites 80,561 slaves 1,713 free bl.	406,511
1800	179,875 whites 40,343 slaves 741 free bl.	220,959			

The items of the census of 1810 were as follow:

	white males.	white females.	total.
Under 16 years of age	91,938	86,519	178,457
Between 16 and 45	59,325	55,431	114,756
45 and upwards	17,542	13,482	31,024
Total	168,805	155,432	324,237

The increase in the first ten years was 147,282; and in the second ten, 185,552. The blacks in both periods increased considerably faster than the whites. At the first enumeration Kentucky was, in point of numbers, the 13th state; at the second, the 9th; and at the third, the 7th.

Militia. The militia of this state amount to between 40,000 and 50,000 men, organized in the manner of the Virginia militia. A considerable part of them are well disciplined and expert marksmen.

Banks. The state bank went into operation in 1807, and has a capital of $1,000,000. Another bank was incorporated in 1802, with a capital of $100,000. Its charter was for 15 years.

Manners and Customs. The inhabitants are emigrants from every state in the union, and from almost every country in Europe. There is of course a great mixture of complexion, language, religion, feelings, habits, and character. A considerable number of the

settlers were men of education, respectability, and worth; who have imparted a good influence around them; but a large majority were of a quite different class of people. Multitudes came to this part of the country very poor, without education, and without morals. This class of inhabitants commonly build a log hut, clear two or three acres for corn, depend on the woods to pasture one or two cows, and to fatten their swine; the gun furnishes the principal supply of meat. When the range, as they call it, is eaten up by the cattle, and the game scarce, like the wild Arab, they load their pack horses, take their families, cows, and swine, and seek a new settlement. In the parts of the state, where the inhabitants have increased in numbers, wealth, and taste, the buildings are generally of limestone or brick, and in some instances are elegant; and the state of society is ameliorated.

Literature. Previous to the separation of Kentucky from Virginia, the legislature of the latter state had incorporated a seminary at Lexington, and entitled it *the Transylvania university.* It was reincorporated in 1798 with the same name, and then went into operation. Its legislature is a board of 21 trustees; to which body no member of the faculties can belong. It is under the direction and instruction of a president, who is professor of mathematics, natural philosophy, and astronomy; of 5 professors, one of moral philosophy, logic, rhetoric, and history, one of the ancient languages, one of surgery, one of the materia medica, and one of botany; and of a teacher of the French language. It has from 60 to 80 students, beside students in medicine. The library contains about 1500 volumes. There is a philosophical, but no chemical apparatus. The annual revenue of the institution, exclusive of the fees for tuition, amounts to $2700, the capital of which consists chiefly of bank stock.

There are a few respectable schools in the state, which are the result of individual exertion. In these, the Latin, Greek, and English languages are taught with considerable accuracy.

The legislature a few years since, gave 6000 acres of land, lying in Green River county, for the support of common schools. Each county received its proportionate share of this land; and a board of trustees in each county was vested with the management of it. The land is now worth from $\frac{50}{100}$ to $1 an acre; and, by being divided into such small parcels, has been worth nothing to any of the counties. It has not, as yet, produced one respectable common school.

Towns. LEXINGTON is much the largest town in the state. It is situated in a very fertile and delightful plain, about 40 miles in diameter, and half encircled by Kentucky river, which, for a course of 60 miles, is no where more than 20 from the town. The site of the town was not long since a mere forest; the first tree was cut down in 1779, and the town laid out in 1782. It now contains 1 handsome Presbyterian church, 1 for Baptists, 1 for Methodists, and 1 for Episcopalians, a college edifice, and 4326 inhabitants. The commerce of the town is extensive, as it furnishes articles of foreign merchandize to a great extent of country, and is to the west-

ern country, what Philadelphia is to the Atlantic states. It is the seat of several flourishing manufactures.

FRANKFORT is the seat of government. It stands on the E. bank of the Kentucky, about 30 miles from Lexington, in a low situation; but the surrounding country is hilly and romantic. It is about one fourth as large as Lexington, containing 1090 inhabitants. The statehouse is built of stone. The state prison is also erected here. Washington, in Mason county, and Paris, in Bourbon county, are next in importance to Frankfort, containing upwards of 800 inhabitants each, and after these, Louisville, Danville, and Bardstown.

Roads. The roads in Kentucky are in the situation, which might be expected in a country so lately settled; generally not good.

Canal. The Ohio, at the rapids in Louisville descends 22 feet in less than 9 miles. Boats pass these with difficulty, and large vessels not without danger at the freshets. This state has incorporated a company for the purpose of canalling these rapids with a capital of $500,000, of which only a small portion is subscribed, and the work is not yet begun. The proposed canal must be nearly 2 miles long, 20 feet broad at the bottom, and 68 at the top. It must be dug generally about 16 feet deep.

Manufactures. The following account of the manufactures of Kentucky for 1810 was returned to the office of the secretary of state.

				value.
Tanneries	267	hides tanned	70,432	$255,212
Distilleries	2,000	spirits	galls. 2,220,773	740,242
Looms	24,450	cloth	yds. 4,685,375	2,057,081
Hemp			tons 5,755	690,600
Maple sugar			lbs. 2,471,647	308,932
Powder mills	53	powder	lbs. 115,706	38,561
Fulling mills	33	cloth	yds. 53,038	78,407
Salt works	36	salt	bushels 324,870	324,870
Saltpetre			lbs. 201,937	33,648
Paper mills	6	paper	reams 6,200	18,600
Ropewalks	38	cordage	tons 1,991½	393,400
Cotton bagging Manufactories	13	bagging	yds. 453,750	159,445
Spinning machines	15		spindles 1,656	
Forges	3			
Furnaces	4			
				$5,098,998

Commerce. The staple commodities of this state are hemp, wheat, and tobacco. It is but a few years since the planters turned their attention to the culture of hemp. These and the other articles of export are carried down the Ohio and Mississippi, to New-Orleans, whence the foreign articles of consumption are chiefly brought up these rivers.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. MOUNTAINS. BOTANY. MINERALS. MINERAL WATERS. CURIOSITIES.

Climate. THE atmosphere of Kentucky is a very moist one. This renders the ground generally muddy throughout the winter and early in the spring. Colds, rheumatisms, and inflammatory fevers, are very common in those seasons; and these last in July, August, and September. The inhabitants seldom experience the extremes of heat and cold. The greatest heat in 1798, was 89° of Fahrenheit. The weather in the spring and fall is delightful. The S. W. wind blows at least half of the time. The intensely cold winds are all from the N. W. Snow seldom falls deep or lies long. The winter, which begins at Christmas, never exceeds 3 months, commonly but 2, and so mild that cattle subsist without fodder.

Face of the Country. The S. E. part of the state is mountainous. Below the mountains the country for some distance is hilly; but the body of the state is uneven. There are considerable tracts of level land, and the state at large would be more healthy and pleasant if more hilly. The whole state, below the mountains, reposes upon an immense bed of limestone, from 1 to 20 feet, and usually about 8 feet below the surface. Like other limestone countries, it is poorly watered, and has scarcely any mill streams, which are not dry after harvest.

Soil and Agriculture. Probably there is no tract of country of the same extent, which has a better soil than Kentucky. Wheat was, for a short time, the chief article of cultivation. At present little more is raised than is necessary for home consumption. This is owing to the drying up of the mill streams during summer, which renders it impossible for the farmers to grind their flour in season for market.*

A great quantity of rye is raised, but almost wholly for the distilleries. Hemp, for several years past, has been the capital article of produce, and will soon be far more valuable than all the others. From 700 to 1000 weight per acre, is an ordinary crop. Maize is extensively cultivated. The soil rests upon a bed of stiff clay which reaches to the limestone rock, and is capable of receiving manure to great advantage. Some years since a company was formed for the culture of grapes. This undertaking commenced on a capi-

* The inhabitants who live near the Ohio have their wheat ground in mills of a new construction. The miller possesses himself of a good flat bottomed boat, and lives in it with his family. The wheel is placed on one side of the boat and is turned by the current. The other apparatus of the mill is within the boat. The grain is brought to the bank by the farmer, the boat is then rowed into a rapid part of the stream, and there moored till the flour is completed. When the grain of one village is ground, the boat is rowed up or down the stream to another.

tal of 10,000 dollars, and is superintended by a Swiss gentleman. It was in 1803, 10 acres in extent, and promised to be productive. Many private vineyards have since been formed in different parts of the state. Cotton is seldom and with difficulty brought to perfection. Irish potatoes produce well, but succeed better further north; sweet potatoes are raised with difficulty.

A species of rye was found by the first settlers growing wild in Kentucky, and all the lands near the Ohio. It had a bearded ear, like the cultivated rye, the beard somewhat longer and the grain less.*

Rivers. The Missisippi is the western, the Ohio the northern, and the Big Sandy the eastern boundary. The Tennessee runs about 50 miles in the state, and the Cumberland at least half of its course. These have heretofore been described.

Kentucky river rises in the S. E. part of the state, and pursues a N. W. course of 280 miles, to the Ohio; emptying 121 miles below the Miami, by a mouth 250 yards wide. The course is crooked and irregular, and the banks are generally high and rocky. It is navigable for boats of considerable size, 180 miles, in the winter tides; but as low as Frankfort they can pass only about half the year.

Green river rises in Lincoln county, and pursues an irregular westerly course of 280 miles, to the Ohio, emptying 120 below Louisville. It is said to have more water in the dry season, than any river in the state. Great Barren river is its principal tributary. It is navigable at all times for loaded boats 50 miles, where there are impassable rapids, above which the navigation is good 30 miles to the mouth of Barren river.

Licking river heads near the Kentucky, and runs N. N. W. about 180 miles to the Ohio; emptying opposite Cincinnati, by a mouth 150 yards wide. It is navigable about 70 miles.

Salt river is formed by a great number of streamlets, none of which is of any considerable size. It falls into the Ohio at the Big Bend.

The large rivers of Kentucky are more diminished during the dry season, than those of any part of the United States. The small rivers and millstreams entirely dry up. This is owing to the nature of the country. In the bed of limestone, on which the state rests, there are every where immense numbers of apertures or fissures. Through these the waters of the rivers and creeks sink; and in summer, in many of them, wholly disappear.

Mountains. Cumberland mountains bound the state for about 80 miles on the S. E. Various other low ranges lie farther west; but we have seen no particular account of them.

Zoology. The animals common to the western country are found in this state.

In the rivers are plenty of buffalo, pike, and catfish of uncommon size, salmon, mullet, rock, perch, garfish, eel, suckers, sunfish, &c. Shad have not been caught in the western waters.

* Imlay.

Swamps are rare in Kentucky; and of course the reptiles which they produce, such as snakes, frogs, &c. are not numerous. The honey-bee may be called a domestic insect, as it is said not to be found but in civilized countries. This is confirmed by a saying which is common among the Indians, when they see a swarm of bees in the woods, "Well, brothers, it is time for us to decamp, for the white people are coming." Nevertheless, bees of late years, have abounded, to their amazement, even two hundred miles N. and N. W. of the Ohio.

The quadrupeds, except the buffalo, are the same as in Virginia and the Carolinas.

Botany. Black, white, and shagbark walnut, ash, cherry, little inferior to mahogany, sugar maple, and hacberry, grow in the best soils. In inferior lands are found black and white oak, and dogwood, together with the preceding. The magnolia is found near the mountains. Beside these there are the coffee tree, papaw, cucumber tree, honey locust, black mulberry, and buckeye. The fields and forests are adorned with immense numbers of flowering plants and shrubs. Peaches and apples are abundant, and highly flavoured.

Minerals. Iron ore abounds in various places; but the metal is not of the best quality. It is well adapted for hollow ware, but does not answer for malleable iron. This superior sort is procured from Pittsburgh. There is an immense quarry of marble on the banks of the Kentucky. It is of a greyish cast, beautifully variegated, and susceptible of a high polish. On the banks of the same river, 20 miles from Lexington, there is a peculiar mineral, which is semitransparent, always breaks in a *rhomboidal* form, and has the double refracting power of the Iceland crystal.

Mineral Waters. The *Olympian springs* are near the sources of Licking river, in a delightful and romantic situation. There are three different kinds of water within a half a mile. One of these is salt water, impregnated with sulphur and carbonic acid; another is impregnated with iron, and is an exellent chalybeate; the third is merely a sulphur spring.

A spring near Harrodsburg in Mercer county is strongly impregnated with Epsom salts.

There are 5 noted salt springs or licks in this country: viz. the higher and lower Blue springs, on Licking river, from some of which, it is said, issue streams of brinish water—the Big Bone lick, Drennon's licks; and Bullit's lick, at Saltsburgh. The last of these licks, though in low order, has supplied this country and Cumberland with salt at a dollar a bushel, and some is exported to the Illinois country. The method of procuring water from these licks, is by sinking wells from 30 to 40 feet deep. The water drawn from these wells is more strongly impregnated with salt, than the water from the sea.

The quantity of salt made at the various salt licks in 1810, amounted to 324,870 bushels.

Curiosities. The banks, or rather precipices, of Kentucky and Dick's rivers, are to be reckoned among the natural curiosities of

this country. Here the astonished eye beholds 300 or 400 feet of solid perpendicular rock, in some parts, of the limestone kind, and in others of fine white marble, curiously checkered with strata of astonishing regularity. These rivers have the appearance of deep artificial canals. Their high rocky banks are covered with red cedar groves.

Caves have been discovered in this country of several miles in length, under a fine limestone rock, supported by curious arches and pillars. Springs that emit sulphureous matter have been found in several parts of the country. One is near a salt spring, in the neighborhood of Boonsborough. There are 3 springs or ponds of bitumen near Green river, which do not form a stream, but empty themselves into a common reservoir, and when used in lamps, answer all the purposes of the best oil. Copperas and alum are among the minerals of Kentucky. Near Lexington are found curious sepulchres full of human skeletons. It has been asserted that a man, in or near Lexington, having dug five or six feet below the surface of the ground, came to a large flat stone, under which was a well of common depth, regularly and artificially stoned. At the bottom of the falls in the Ohio, is a small rocky island, overflown at high-water, which is remarkable for its petrifactions. Wood, roots, and fish bones are found petrified; also a hornets nest, a bird, and several fish.*

There are phenomena very commonly seen in this state, which we believe are entirely peculiar to it. The inhabitants call them *sinkholes*. These are holes in the earth, from 10 to 200 feet in diameter, and from 10 to 30 feet in depth. They are in the form of a tunnel, or of an inverted frustum of a hollow cone. Some of them are of recent formation; others, from the size of the trees at the bottom and on the sides, are evidently of long standing. They are supposed to be formed in the following manner. The bed of limestone, every where beneath the surface, has innumerable holes or crevices in it. After heavy rains, large masses of water are collected in basons, in the superincumbent clay. In various instances, the water works its way through the clay, to the bed of limestone; and, finding one of these fissures, immediately flows through it. As the water descends through the earth beneath, it removes some of it, and thus partially undermines the limestone. After this process has been repeated a sufficient number of times, the limestone, having lost its support, and become too thin to bear its own weight, and that of the trees and earth above, breaks and falls in.

* Imlay.

NORTH-CAROLINA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. ORIGINAL POPULATION. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. MANNERS AND CUSTOMS. LITERATURE. MEDICAL SOCIETY. CITIES AND TOWNS. ROADS. CANALS. MANUFACTURES. COMMERCE.

Extent. THIS state is situated between 33 50 and 36 30 N.; and between 75 45 and 84° W. Its length in lat. 35 7, is 430 miles. The greatest breadth is 180. In the west, it terminates in a point. The eastern part is much the broadest, and the whole extent of the coast is not less than 300 miles. The number of square miles is 48,000.

Boundaries. On the N. by Virginia; on the E. and S. E. by the Atlantic; on the S. W. and S. by South-Carolina; and on the W. and N. W. by Tennessee.

Divisions. This state is divided into 62 counties; each county is subdivided into towns.

Counties.	No. inhabitants in 1810.	Chief towns.
Moore	6,367	Alfordstown
Haywood	2,780	
Beaufort	7,203	Washington
Cabarras	6,158	
Gates	5,965	Hertford
Surry	10,366	Salem
Franklin	10,166	Lewisburg
Washington	3,464	
Currituc	6,985	
Green	4,867	
Granville	15,576	Williamsborough
Buncombe	9,277	
Randolph	10,112	
Montgomery	8,430	Stokes
Burke	11,007	* *Morgan*
Edgecombe	12,423	Tarborough
Bertie	11,218	Windsor
Warren	11,004	Warrenton
Columbus	3,022	
Rutherford	13,202	Rutherfordton
Duplin	7,863	Sarecto
Rockingham	10,316	

* The towns, whose names are in Italic, are the places where the superior courts of law and equity are held.

Counties.	No. inhabitants in 1810.	Chief towns.
Robeson	7,528	Lumberton
Martin	5,987	Williamston
Craven	12,676	*Newbern*
Brunswick	4,778	Smithville
Camden	5,347	Jonesborough
Pitt	9,169	Greensville
New-Hanover	11,465	*Wilmington*
Sampson	6,620	
Carteret	4,823	Beaufort
Jones	4,968	Trenton
Tyrrel	3,364	Elizabethtown
Perquimans	6,052	
Richmond	6,695	Rockingham
Halifax	15,620	*Halifax*
Chatham	12,997	Pittsborough
Bladen	5,671	Elizabethtown
Wake	17,086	* RALEIGH
Stokes	11,645	Upper Saura
Pasquotank	7,674	Nixonton
Cumberland	9,382	*Fayetteville*
Northampton	13,082	
Wilks	9,054	
Ash	3,694	
Lenoire	5,572	Kingston
Wayne	8,687	
Iredel	10,972	
Guilford	11,420	Martinville
Anson	8,831	Wadesborough
Onslow	6,669	Swansborough
Caswell	11,757	Leasburg
Person	6,642	
Nash	7,268	
Orange	20,135	*Hillsborough*
Johnson	6,867	Smithfield
Chowan	5,297	*Edenton*
Rowan	21,543	*Salisbury*
Hertford	6,052	Wynton
Hyde	6,029	Germantown
Lincoln	16,359	Lincolnton
Mecklenburg	14,272	Charlotteville
Total	555,500	

This state is entitled to send 13 representatives to congress.

Names. This state was at first a part of the *Florida* of the Spaniards and French, and of the *Virginia* of the English. It was next included in the patent of *South-Virginia*; then in that of *Carolana*; and afterwards in that of *Carolina*. In 1729 it received the name of *North-Carolina*, in consequence of its being made a distinct province.

* The seat of government.

Original Population. In 1700 there were 13 tribes of Indians in this province,* viz.

		Towns.	Gun men.	Geographical situation.
1	Tuscarora	15	1200	Bertie county
2	Waccon	2	120	Halifax on the Roanoke
3	Machapomga	1	30	Hyde county
4	Bear River	1	50	
5	Meherrin	1	50	Meherrin river
6	Chowan	1	15	Chowan county
7	Pasquotank	1	10	Pasquotank county
8	Poteskoit	1	30	Currituc county
9	Hatteras	1	16	Hatteras banks
10	Connamon	2	25	
11	Neus	2	15	On the Neus river
12	Pamplico	1	15	Pamplico sound
13	Janpim	1	6	Yanpim river
			1582	

The whole number of souls in these tribes Lawson reckoned to be about 4000. Five other tribes came to North-Carolina about this time, containing 750 souls.

Of all these tribes there are now remaining in North-Carolina a few of the Tuscaroras only, who live in Bertie county, amounting, in 1790, only to about 60 souls.

History. North-Carolina was early discovered, and the first English colony ever planted in America was settled on the island of Roanoke, in Pamlico sound, in 1585. The next year the colony returned to England. This country was included in the territories granted by charter at various times under the names just recited.

The first permanent settlement was made on the eastern bank of the Chowan, and called Albemarle, in honour of gen. Monk. The emigrants came from Nansemond, in Virginia, and settled here about 1660.

In 1663 the earl of Clarendon and the other proprietors offered very generous terms to all who should emigrate to Carolina. Two years afterwards a colony from the island of Barbadoes planted itself at cape Fear, under John Yeamans, who was appointed commander in chief of the country. A constitution was granted by the proprietors in 1667.

In 1669 the first assembly was constituted and convened at Albemarle. The first assembly for the whole province met at Charlestown in 1674.

An insurrection broke out at Albemarle, in 1677, and for two years the people exercised all the rights of an independent state.

Charles II. sent over a company of foreign Protestants, in 1679, for the purpose of raising oil, wine, silk, and other productions of the south.

The country was divided into 3 counties, in 1682, two of which were in North-Carolina, and one in South. The form of govern-

* Lawson's History North-Carolina, London, 1709.

ment devised by Mr. Locke for Carolina, was finally abrogated in 1693; and a government agreeable to the charter was established. The rice plant was introduced two years after.

The Corees, Tuscaroras, and other tribes, attempted to exterminate the colonists in North-Carolina, in 1712, but were defeated. The legislature in 1715 divided the country into parishes.

The crown purchased the whole of Carolina of the proprietors, in 1729, for 17,500*l.* sterling; and the king immediately divided it into two provinces.

In 1769 this province resisted the oppressions of the ministry. Two years afterwards, about 1500 of the inhabitants, assuming the name of *regulators*, rose in rebellion. Gov. Tryon fought and defeated them: 300 were killed in the battle, and, of those taken, 12 were condemned for high treason, and 6 executed.

The royal troops were defeated, at Moore's Creek Bridge, in 1776; and the Americans, at Briar Creek, in 1779; again, at the Waxhaws, in 1780; and again, at Guilford courthouse, in 1781. The constitution of the state was agreed on, Dec. 18, 1776.

Religion. The western parts of the state are settled by Presbyterians from Pennsylvania, the descendents of Scotch-Irish emigrants. Almost all the country between the Catawba and Yadkin, as well as that lying on those rivers, is thus peopled. A few settlements of German Lutherans and Calvinists are intermixed. There are some Presbyterians also in the lower country. The Moravians, in 1751, purchased a tract of 100,000 acres of lord Granville. It lies between the Dan and Yadkin, is called Wachovia, and contains a number of flourishing villages, the three largest of which are Salem, Bethany, and Bethabara.

The Friends have a settlement in New-Garden, and congregations at Perquimons, Pasquotank, and Crane creek.

The Methodists and Baptists are numerous in the middle country, and considerably so in the lower districts. The numbers of the first are much greater than those of any other in the state.

Government. The legislature is styled the *general assembly*, and consists of a senate and house of commons. The senators are chosen annually, one from each county, and must possess 300 acres of land, and have resided the preceding year in the county. The members of the house of commons are chosen annually, two from each county, and one from each of six towns; and must have resided there the preceding year, and be possessed of 100 acres of land. Voters for the senate must possess 50 acres, and have resided in the county one year. Voters for commoners must have resided one year, and paid taxes.

The governor is chosen annually by a joint ballot of both houses; and is eligible 3 years in 6. He must be 30 years of age, have a freehold worth $1000, and have resided in the state 5 years. The executive council consists of 7 persons chosen annually, by a joint ballot of the two houses.

Population. North-Carolina contained in the year

1749		45,000	1800	337,774 whites 133,296 slaves 7,033 free bl.	478,103
1790	288,204 whites 100,571 slaves 4,976 free bl.	393,751	1810	376,410 whites 168,824 slaves 10,266 free bl.	555,500

The items of the census of 1810 were as follow:

	males.	females.	total.
Under 16 years of age	98,357	95,474	193,831
Between 16 and 45	69,086	71,877	140,963
45 and upwards	21,189	20,427	41,616
Total	188,632	187,778	376,410

At the first census, this was the fourth state in point of population, and at the second and third, the fifth. At the last census the increase of whites was 39,636, or $11\frac{7}{10}$ per cent.; and that of the blacks 38,761, or $29\frac{7}{10}$ per cent. In the low country the increase of whites bears no proportion to that of the mulattoes and blacks.

Militia. The number of fencible men in this state may be estimated at about 60,000, organized as in Virginia.

Manners and Customs. The North-Carolinians are mostly planters, and live from a half a mile to three and four miles from each other, on their plantations. They have a plentiful country, no ready market for their produce, little intercourse with strangers, and a natural fondness for society, which induce them to be hospitable to travellers.

Temperance and industry have not heretofore been reckoned among the virtues of the North-Carolinians. The time which they wasted in drinking, idling, and gambling, left them very little opportunity to improve their plantations or their minds. The improvement of the former was left to their overseers and negroes; the improvement of the latter was too often neglected.

Time that is not employed in study or useful labor, in every country, is generally spent in hurtful or innocent exercises, according to the custom of the place or the taste of the parties. The citizens of North-Carolina, were formerly in the habit of spending their time in drinking, or gaming at cards and dice, in cock fighting, or horse racing.

We are told that a strange, and very barbarous practice prevails among the lower class of people, in the back parts of Virginia, North and South-Carolinas, and Georgia; it is called gouging, and is neither more nor less than a man, when boxing, putting out the eye of his antagonist with his thumb. We have lately been told, that in a particular county, where at the quarterly court, 20 years ago, a day seldom passed without 10 or 15 boxing matches, it is now a rare thing to hear of a fight.

Since the peace, there has not been greater progress in the arts of civilized life made in any of the states, than in North-Carolina. Instead of dissipation and indolence, formerly too prevalent among

the inhabitants we generally find a more orderly, industrious people, who are, in some measure, indebted for this reform to the great immigration of farmers and artizans from the northern states, who have roused the spirit of industry among them, in a country where it may be cultivated and cherished to any degree. The schools that have lately been erected in different parts of the state, have greatly contributed to the advancement of knowledge, and the improvement of the people. Many native young gentlemen, first initiated in literature in some of these schools, and finishing their education in Europe, or in some of the northern colleges, have exhibited proofs of genius in the learned profession equal to most of their northern brethren. Some of these characters are distinguished in the legislature, on the bench, at the bar, and in the pulpit, doing honour to their country.

North-Carolina, in point of numbers, is the fifth state in the union. During this progress in population, which has been greatly aided by immigrations from Pennsylvania, Virginia, and other states, while each has been endeavoring to increase his fortune, the human mind like an unweeded garden, has been suffered to shoot up in wild disorder. But when we consider that during the late revolution, this state produced many distinguished patriots and politicians, that she sent her thousands to the defence of Georgia and South-Carolina, and gave occasional succours to Virginia—when we consider too the difficulties she has had to encounter from a mixture of inhabitants, collected from different parts, strangers to each other, and intent upon gain, we shall find many things worthy of praise in her general character.

Literature. The general assembly of North-Carolina, in December, 1789, passed a law incorporating 40 gentlemen, five from each district, as trustees of the university of North-Carolina. To this university they gave, by a subsequent law, all the debts due to the state, from sheriffs or other holders of public money, and which had been due before the year 1783. They also gave it all escheated property within the state. A considerable quantity of land has been given to the university. The general assembly, in December, 1791, loaned 5000*l.* to the trustees, to enable them to proceed immediately with their buildings. The trustees fixed on Chapel Hill, in Orange county, for the site of the university, an elevated and handsome situation, 28 miles W. of Raleigh, and 14 S. of Hillsborough. The village began with the university, around which were erected, previous to 1803, 25 or 30 houses. Chapel Hill village is near, containing 15 or 20 houses. The college has a professor of sciences, a professor of languages, three tutors, and about 100 students. There is a library, philosophical apparatus, and a small cabinet of curiosities. The students are from North-Carolina, Virginia, Tennessee, and Kentucky.

A college edifice of brick, 100 feet by 40, two stories high, and another 180 by 40 feet, 3 stories high; houses for the president and steward, of wood, constitute the public buildings belonging to the university.

There is a very good academy at Warrenton, which had, some

years since, 120 scholars. The academy at Fayetteville has about the same number. There is also an academy at Guilford, at Lumberton, at Newbern, at Williamsborough in Granville county, at Charlotte courthouse, and Hillsborough.

Medical Society. In this state a medical society was incorporated, Dec. 23, 1799. The members of the society are from the most reputable physicians of the state. It is a valuable institution. They have encouraged the culture of various medicinal articles, which thrive here very well. Palma christi and other medicines promise to be articles of exportation.

Cities and Towns. NEWBERN, the largest town in the state, stands at the confluence of the Trent with the Neus, on a sandy point of land between the two rivers. The Neus is here a mile and a half wide, and the Trent $\frac{3}{4}$ of a mile. The public buildings are a small Episcopal church, a handsome courthouse, and a gaol, all of brick, and a theatre, which was formerly a distillery. The houses are almost wholly of wood, and are indifferently built. The population in 1800, amounted to 2467, of whom 1298 were slaves. It carries on a considerable trade with the West-Indies. Lat. 35 20 N. lon. 77 25 W.

FAYETTEVILLE stands on Cross creek, near its junction with Blount creek, and a mile from its entrance into Cape Fear river, at the head of natural navigation on this river, 100 miles above Wilmington. It is regularly laid out, and the principal streets are 100 feet wide. There are upwards of 400 houses. The public buildings are a Presbyterian church, a handsome courthouse, and a townhouse. The inhabitants are almost wholly Scotch Highlanders, and many of them speak their native *Erse*, the language of Ossian. Fayetteville is better situated for commerce, and vends more merchandize than any inland town in the state; and few places are more eligible for the establishment of several important manufactures. There are three mills at this place, which make excellent flour; several cotton machines, which go by water, several extensive tan yards; and one or two considerable distilleries and breweries. The product received here is tobacco, cotton, which is becoming one of the principal exports from this place, flour, wheat, beef, pork, flax seed, some hemp, butter, and a variety of other articles, the product of a rich and fertile back country, lying to the north and west of this town, from 30 to 180 miles. Add to this, quantities of saw mill lumber, staves, and some naval stores made in the neighborhood. The town has increased since the revolution in a very rapid manner, but has experienced some dreadful checks from fire: the inhabitants begin now to use bricks for building, which are made here of a fine quality, and sold from five to six dollars per thousand. The country immediately round the town is a high, sandy, dry soil, and not fertile, except on the water courses, which are numerous, and generally afford as rich soil as any in the state.

WILMINGTON is 34 miles from the sea, on the E. bank of Clarendon river. The town is regularly built, and has an Episcopal church, a courthouse, and gaol. Population in 1800, 1689. The trade is considerable.

EDENTON is situated on the N. side of Albermarle sound, and has about 150 indifferent wood houses, and a few handsome buildings. It has a brick church for Episcopalians, which for many years has been much neglected. Its local situation is advantageous for trade, but not for health. It is the county town of Chowan county, and has a courthouse and gaol. In or near the town lived the proprietary and the first of the royal governors.

RALEIGH is the seat of government, and stands 120 miles in a direct line from the coast, and 40 from the Virginia boundary. Four spacious streets divide the town into as many squares. The houses are of wood. The statehouse is of brick, 102 feet by 56, and in beauty and convenience will very well compare with those of other states. It cost $30,000. The city has about 120 houses, and upwards of 1000 inhabitants.

PLYMOUTH is about 20 miles from Edenton. It is a place of considerable trade. The navigation is free and open, and there is a constant communication between the two places across Albemarle sound.

HILLSBOROUGH is an inland town, situated in a high, healthy, and fertile country, 180 miles N. of W. from Newbern. It was settled by about 60 or 70 families as long ago as 1786.

WASHINGTON is in the county of Beaufort, on the north side of Tar river, in lat. 35 30, distant from Ocrecoc inlet 90 miles. From this town is exported tobacco of the Petersburg quality, pork, beef, Indian corn, peas, beans, pitch, tar, turpentine, rosin, &c. and pine boards, shingles, and oak staves. About 130 vessels enter annually at the custom house here; and it owns more shipping than any other town in the state. The inhabitants are noted for their hospitality.

GREENVILLE, so called after major general Nathaniel Green, is situated in Pitt county, on the S. bank of Tar river, in lat. 35 35, distant from Ocrecoc inlet 110 miles. At this town there is an academy.

TARBOROUGH is in the county of Edgcomb, on the S. bank of Tar river, in latitude 35 45, distant from Ocrecoc inlet 140 miles. At this town large quantities of tobacco of the Petersburg quality, pork, beef, and Indian corn, are collected for exportation.

SMITHFIELD is at the head of navigation on the Neus, ninety miles from Newbern by land, 250 by water. It has seven stores; is the county town of Johnson county, and has the best courthouse in the state.

Roads. The roads of this state have been much neglected, and are in a very bad condition. Bridges are wanting on most of the streams, even on the main post road, in many instances.

Canals. A canal has been completed around Buckhorn falls, in Cape Fear river, 7 miles below the junction of Deep and Haw rivers. Another is partly finished around Smilie's falls, in the same river. It is to be 6 miles long. The Chesapeak and Albemarle canal, heretofore described, is partly in this state and partly in Virginia. One important object of this canal is to convey to market the otherwise useless lumber of Dismal swamp.

Manufactures. The Moravians have a paper mill at Salem. Iron works have been established in the counties of Guilford, Surry, and Wilks, all on the Yadkin river; also in Lincoln and Johnson counties. The quality of the iron is very good. Pitch, tar, and turpentine, are among the chief articles of export from this state. Whiskey and peach brandy are distilled in considerable quantities for home consumption.

Commerce. The amount of exports from this state, in 1804, was $928,687; and in 1810, $403,949; of which $401,465 were of domestic produce, and $2484 of foreign. A great proportion of the produce of the back country, consisting of tobacco, wheat, and maize, is carried to the Virginia and South-Carolina markets. The exports from the low country are lumber, tar, pitch, turpentine, rosin, maize, furs, tobacco, pork, tallow, bees wax, and myrtle wax. Cheese, cider, apples, potatoes, iron, tin ware, furniture, hats, and shoes, are imported from New-England; and foreign merchandize chiefly from New-York. The aggregate tonnage of this state for the year 1805 was 34,090 tons.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. INLAND NAVIGATION. SWAMPS. SOUNDS. CAPES. MOUNTAINS. BOTANY. MINERALOGY. MINERAL SPRINGS. CURIOSITIES. ISLANDS.

Climate. IN the flat country, near the sea-coast, the inhabitants are subject to intermitting fevers, which often prove fatal, as bilious or nervous symptons prevail. These fevers are less dangerous to the natives who are temperate. They bring on other disorders, which greatly impair the natural vigour of the mind, debilitate the constitution, and terminate in death. The countenances of the inhabitants, during these seasons, have generally a pale yellowish cast, occasioned by the prevalence of bilious symptoms. They have very little of the bloom and freshness of the people in the northern states.

It has been observed that more of the inhabitants, of the men especially, die during the winter, by pleurisies and peripneumonies, than during the warm months by bilious complaints. These pleurisies are brought on by intemperance, and by an imprudent exposure to the weather. Were the inhabitants cautious and prudent in these respects, they might in general escape the danger of these fatal diseases. June is the most healthy month; often May and July may be called healthy. Summers dry and cool are the most salubrious. More deaths occur in February and March, from inflammatory complaints of the head and breast than in any part of the year. In the hilly country fluxes are common, and very fatal to children. Pulmonary consumptions, epilepsies, apoplexies, te-

tanus, and rickets, are hardly known in North-Carolina. Ring worms, tetters, scurvy in the teeth and gums, are common. The western hilly parts of the state are healthy. The air there is serene a great part of the year, and the inhabitants live to old age, which cannot be said of the inhabitants of the flat country. Though the days in summer are extremely hot, the nights are cool and refreshing. The hottest weather is in July. From the first of July, to the first of September, the mercury ranges between 80 and 96, and sometimes, though seldom, it rises above 100. Within a few years past, the intermittent fever has become more common in the upper parts of the state. Autumn is very pleasant, both in regard to the temperature and serenity of the weather, and the richness and variety of the vegetable productions which the season affords. The winters are so mild in some years, that autumn may be said to continue till spring. Wheat harvest is in the beginning of June, and that of Indian corn early in September.

Face of the Country. The flat or low country in North-Carolina extends about 80 miles from the sea. Its natural growth is the pitch or long leaved pine. Between this and the lower falls of the rivers lies a belt of land, about 40 miles wide, consisting of small sand hills, and covered with pitch pine. The lower falls of the Roanoke are about 10 miles above Halifax; of the Pamlico, 15 above Tarborough; of the Neus, at Smithfield; of Cape Fear river, some distance above Fayetteville; and of the Yadkin, a few miles below the South-Carolina line. Beyond these falls the country is a land of hills and vallies, and farther back it is mountainous. Inland and river swamps are numerous in the flat country. They abound with cypress and bay trees.

Soil and Agriculture. Wheat, rye, barley, oats, and flax grow well in the back hilly country, but tobacco is the most important article of agriculture. Cotton and hemp are cultivated there to a considerable and increasing extent, and the first more abundantly in the lower part of the hilly country. Maize and pulse are extensively cultivated throughout the state. Rice is cultivated in some of the swamps of the low country. The greater part of the low country is not worth cultivating. It is however very valuable for its timber, tar, pitch, and turpentine. The country of sand hills is also very indifferent.

Rivers. The Roanoke runs partly in Virginia, and the Yadkin and Catawba partly in South-Carolina. They have heretofore been described.

Cape Fear river is formed by Haw and Deep rivers. These rise near together in the same mountains, and, running each about 90 miles, unite 7 miles above Buckhorn falls. The course of the river is thence S. and S. E. about 160 miles to the ocean, into which it empties between Cape Fear island and Smithville. It is navigable for sea vessels 25 miles above Wilmington, for large boats to Fayetteville, 65 miles farther, and for smaller boats above the forks. About 6 miles from Wilmington the river divides and encompasses a considerable island, below which it has more the appearance of a bay than a river. Clarendon river, or the N. E. branch, is a

stream, that runs nearly S. about 90 miles, and unites with the east arm of Cape Fear river, just above Wilmington. Black river is a longer stream, which rises in the upper country, and running parallel with the Cape Fear, falls into it a little below Appleby.

Neus river rises in the upper country, a little above Hillsborough, and near some of the branches of the Roanoke. It runs on the whole S. E. and falls into Pamlico sound at its southwestern extremity. Its length is about 220 miles, of which it is navigable for sea vessels 52, for large boats 90, and for small boats, to Smithfield, 160. Cotecney creek is the principal tributary on the E.; and the Trent on the W. This last empties at Newbern, and is navigable for sea vessels 12 miles, and for boats 25.

Pamlico river is formed by Tar river and Fishing creek, which unite a little above Tarborough. The last is the longest stream, and heads near Warrenton. The course of the Pamlico is about S. E. and it empties its waters into the western extremity of Pamlico sound. Its length is about 180 miles. It is navigable for vessels drawing 9 feet water, to Washington, 40 miles, and for large boats to Tarborough.

Chowan river is formed by the Nottaway and Blackwater, which unite on the Virginia line, and the Meherrin, which falls in from the W. 10 miles below. All these rise in Virginia, and pursue a southeasterly course. The Meherrin, the longest, runs about 100 miles. After the confluence the Chowan runs S. E. and S. 40 miles, and falls into the head of Albemarle sound, near the Roanoke, by a mouth 3 miles wide.

Pasquotank, Perquimons, White Oak, and New rivers, are little streams, or rather creeks, extending but a few miles into the country.

Waccamaw and Little Pedee, branches of the Pedee, and Broad river, an arm of the Congaree, flow a considerable distance in this state. Great Kanhawa, a branch of the Ohio, rises in the N. W. part of the state. French, Broad, and Watuga rivers, branches of the Tennessee, rise here also; and Big Pigeon, another branch of the Tennessee, rises in Georgia and passes across this state.

This state would be much more valuable, were it not that the rivers are barred at their mouths, and the coast furnishes no good harbors. These circumstances prevent the state from building large ships, for which they have an abundance of excellent timber. Several causes have been assigned for all the harbors and rivers being barred, south of the Chesapeak. Some suppose the bars are formed by the current of the long rivers throwing up the sands where their rapidity terminates. Others say that a bank is thrown up by the gulf stream, which runs near these shores.

The banks of the rivers in this, and the other neighboring states, often overflow after great rains, which does much damage to the plantations. A gentleman on the spot asserts, that he has seen the water 30 feet below the banks of the river, just after it had been ten feet above them. This is owing to the narrowness of the mouths of the rivers, which do not afford a sufficient channel for the waters, accumulating every mile, to discharge themselves into the ocean.

Inland Navigation. A committee of the general assembly, held at Fayetteville, December, 1793, being appointed to inquire into the probability of improving the inland navigation of the several rivers in this state, reported that eight might probably be operated upon with great effect:

	miles.
Broad river, for	30
Catawba (a branch of Santee)	140
Yadkin (a branch of Pedee)	180
Haw river	50
Deep river	50
Neus, above Smithfield	50
Tar river, above Tarborough and Fishing creek	40
Roanoke, above Halifax	30
Dan river	50
	620

Swamps. There are two swamps that have been called *Dismal.* Great Dismal is on the dividing line between Virginia and North-Carolina. It is chiefly owned by two companies. The Virginia company, of which general Washington was one, owns 100,000 acres. The North-Carolina company owns 40,000 acres. In the midst of this Dismal there is a lake about seven miles long, called Drummond's pond. The waters of that lake in rainy seasons discharge themselves to the southward into Pasquotank of North-Carolina, and to the north and eastward into the branches of the Nansemond, Elizabeth river, and a river which runs into Currituc sound. A navigable canal is to be dug from the head of Pasquotank to the head of Elizabeth river in Virginia, the distance about 14 miles. This canal will pass about a mile to the eastward of Drummond's pond, and will receive water from that lake. To pass through the lake would not be safe for low sided vessels. The company, by whom this canal is to be cut, have been incorporated by the concurring laws of Virginia and North-Carolina. In September, 1791, the subscription being nearly full, the company chose their directors and other officers. By the canal, the exports of Norfolk must be greatly increased.

The other Dismal is in Currituc county, on the south side of Albemarle sound. This *Dismal* had not drawn the public attention as an object of importance before the end of the late war, at which time it was chiefly taken up. It is now supposed to contain one of the most valuable rice estates in America. In the midst of this Dismal there is a lake of about 11 miles long, and 7 miles broad. In the year 1785, or 1786, Josiah Collins, Esq. of Edenton, in company with Messrs. Allen and Dickinson of that place, having taken up nearly 100,000 acres of land round the lake, resolved to make a navigable canal from the lake to the head of Skuppernong river; the distance five and a half miles. This canal, 20 feet wide, was finished in 1790, and the company in 1791 raised above 120 acres of rice on the margin. The natural channel by which the lake used to discharge its waters is now stopped, and the waters pass

off by the canal. About 500 yards from the lake, the company have erected several saw mills. The water in the lake is higher than the surface of the ground for about half a mile from the lake on both sides of the canal; whence it follows that the company can, at any time, lay under water about 10,000 acres of a rich swamp, which proves admirably fitted for rice. Beside these, there is the Great *Green* swamp, of which we know nothing but the name.

Sounds. Pamlico and Albemarle sounds have already been described.* Core sound is merely a narrow arm of Pamlico sound, between cape Lookout island and the main.

Capes. Cape Hatteras is one of the most noted capes on the coast. It is in lat. 35 15 N.; and is a point running out from the middle of a long narrow sand island, which separates Pamlico sound from the ocean. From the ancient surveys of this part of the coast it appears, that the sand banks near the cape, were formerly shoaler and much more extensive, than at present. The outshoals now lie 14 miles S. W. of the cape, are but 5 or 6 acres in extent, and in the least depth have 10 feet water at low tide. The gulf stream touches the eastern edge of this bank, from which there is a sudden descent from 10 fathoms, to no soundings. On this bank it has been the lot of many a good tight ship, to strike in a gale of wind, and go to pieces. No spot in the ocean is more violently agitated, or more dangerous in a storm, than this. The sailors call this bank the *full moon shoal;* and from it a ridge runs the whole distance to the cape. It is about a half a mile wide, and has 10, 11, and 12 feet water at low tide. There are several gaps or channnels, in it, with a depth of 15 or 16 feet. A little N. of the cape, is good anchoring in 4 or 5 fathoms. The bottom, from cape Henry to cape Hatteras, is uniformly a smooth sand.

Cape Lookout is south of cape Hatteras, opposite Core sound, and has already been mentioned, as having had an excellent harbor entirely filled up with sand, since the year 1777.

Cape Fear is remarkable for a dangerous shoal, called, from its form, the Frying Pan. This shoal lies at the entrance of cape Fear river, the south part of it, six miles from cape Fear pitch, in latitude 23 32.

Mountains. The Allegany ridge crosses the western part of the state, and the Blue ridge lies farther east. But we have been able to obtain no satisfactory account of the mountains of North-Carolina.

Botany. The long-leaved pine covers the flat country, and is also the chief forest tree among the sand-hills. Here the black jack also grows extensively. Cypress and bay are the common trees of the swamps. Red and white oak, walnut, and short-leaved pine are the principal timber of the back country, below the mountains. On them are found the chesnut, hickory, maple, birch, and most of the trees of the American forest. The misletoe is common in the lower parts of the back country. It does not grow out of the earth, but on the tops of trees. The roots, if they may be so called,

* Page 222, 223.

run under the bark of the tree, and incorporate with the wood. It is an evergreen, resembling the garden boxwood. The principal wild fruits are plums, grapes, strawberries, and blackberries. Ginseng, Virginia snakeroot, Seneca snakeroot, and lion's heart, are among the medicinal herbs. The rich bottoms are overgrown with canes. The leaves are green through the winter, and afford excellent food for cattle. A species of the sensitive plant grows wild, and Venus's fly-trap is also found here.

Mineralogy. A gold mine has been lately discovered in Cabarras county in this state, which had in 1805 furnished the mint of the United States, with virgin gold, which has produced, 11,000 dollars gold coin; more has been found, but the extent of the mine has not yet been discovered. Gold has been discovered in other creeks in the same neighborhood.

In Buncomb county, near Mackeysville, at the foot of the mountains, is a mine of cobalt, the ore of which is rich, with a large intermixture of arsenic. Its manufacture into smalt is contemplated.

On some of the rivers in North-Carolina there is found what may be called a *shell rock*, being a concretion of shells and sand, in a hard ragged composition, and is sometimes used instead of stones, for the foundation of houses, which purpose, when mixed with mortar, it answers very well, making a strong wall. It is used in this way at Newbern.

There is a long ridge of limestone, which, extending in a southwesterly direction, crosses the whole state of North-Carolina. It crosses Dan river to the westward of the Sawro towns, crosses the Yadkin about 50 miles N. W. from Salisbury, and thence proceeds by the way of King's mountain to the south. No limestone has been found to the eastward of that ridge. A species of rock has been found in several places, of which lime is made, which is obviously a concretion of marine shells. The state is traversed nearly in the same direction by another stratum of rocks, which passes near Warrenton.

Mineral Springs. In the counties of Warren, Montgomery, Rockingham, Lincoln, Buncomb, and Rowan, are mineral springs of great medicinal virtue. They are impregnated chiefly with sulphur, nitre, and the aerial acid, and are powerful in removing cutaneous scorbutic complaints, and correcting indigestions. Numbers of people from the lower country and elsewhere, repair to these springs in the autumn for health, which is generally obtained by copiously drinking the waters.

Curiosities. The Ararat, or Pilot mountain, about 16 miles northwest of Salem, draws the attention of every curious traveller in this part of the state. It is discernible at the distance of 60 or 70 miles, overlooking the country below. It was anciently called the Pilot, by the Indians, as it served them for a beacon, to conduct their routes in the northern and southern wars. On approaching it, a grand display of nature's workmanship, in a rude dress, is exhibited. From its broad base, the mountain rises in easy ascent, like a pyramid, near a mile high, to where it is not more than the area of

an acre broad; when, on a sudden, a vast stupendous rock, having the appearance of a large castle, with its battlements, erects its perpendicular height to upwards of 300 feet, and terminates in a flat, which is generally as level as a floor. To ascend this precipice, there is only one way, which, through cavities and fissures of the rock, is with some difficulty and danger effected. When on the summit, the eye is entertained with a vast delightful prospect of the Apalachian mountains, on the north, and a widely extended level country below, on the south; while the streams of the Yadkin and Dan, on the right and left hand, are discovered at several distant places, winding through the fertile low grounds, their way towards the ocean.

In the county of Rowan, about 10 miles southwest from Salisbury, 200 from the sea, and 70 from the mountains, is a remarkable subterraneous wall. It stands on uneven ground, near a small brook. The stones of the wall are all of one kind, and contain iron ore. They are of various sizes, but generally weighing about four pounds. All are of a long figure, commonly 7 inches in length, sometimes 12. The ends of the stones form the sides of the wall. Some of these ends are square, others nearly of the form of a parallelogram, triangle, rhombus, or rhomboides; but most of them are irregular. Some preserve their dimensions through the whole length; others terminate like a wedge. The alternate position of great and little ends aids in keeping the work square. The surface of some is plain, of some concave, of others convex. Every concave stone is furnished with one convex. Where the stones are not firm, they are curiously wedged with others. The most irregular are thrown into the middle of the wall. Every stone is covered with cement, which, next to the stone, has the appearance of iron rust. Where it is thin the rust has penetrated through. Sometimes the cement is an inch thick, and where wet, has the fine, soft, oily feeling of putty. The thickness of the wall is uniformly 22 inches, the length yet discovered is about 300 feet, and the height 12 or 14. Both sides of the wall are plastered with the substance in which the stones are laid. The top of the wall appears to run nearly parallel with the top of the ground, being generally about a foot below the surface. In one place it is several feet. There is a bend or curve of 6 feet or more, after which it proceeds in its former direction. The whole appears to be formed in the most skilful manner, but when or for what purpose, is left entirely to conjecture.

Six or eight miles from this wall another has since been discovered, 40 feet long, 4 or 5 feet high, 7 inches thick. These stones are all of one length, but of different kinds.

Islands. The coast of this state is lined with small islands of no great importance, but to impede the navigation. Among these, are *Smith's* island, at the mouth of cape Fear river, remarkable for the production of a fine breed of sheep, resembling the wild merinos of Spain. They are perfectly wild, are very fine boned, and run with great swiftness. The fleece is fine, of most delicate softness to the touch, and purely white. It nearly resembles the best

Spanish wool, except that the animal will yield three times as great a quantity. The sheep of the island are shorn twice a year, at which time they are driven into spaces enclosed on the one side and bounded by the sea on the other. After shearing they are set at liberty, and reassume their native wildness. The extent of the island is such that many are never taken, and live to a great age. The climate, pasturage, and constant access to salt, together with many other causes, at present not known, have no doubt greatly contributed to improve the fleece.

TENNESSEE.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAME. DIVISIONS. ORIGINAL POPULATION. HISTORICAL EPOCHS. ANTIQUITIES. RELIGION, GOVERNMENT. POPULATION. INDIANS. MILITIA. REVENUE. MANNERS AND CUSTOMS. LANGUAGE. COLLEGES AND ACADEMIES. CHIEF TOWNS. MANUFACTURES. COMMERCE.

Extent. miles. Length 400, Breadth 104¼ } between { 79 38 and 88 38 W. long. 35° and 36 30 N. lat.

Boundaries. On the N. by Kentucky and Virginia; E. by North-Carolina; S. by Georgia and the Missisippi territory; and W. by the Missisippi river; its figure being rhomboidal.

Name. The state was named from its principal river; the name, it is said, having been applied to the river by the Indians, on account of its curvature, giving it in their imagination, the shape of an Indian spoon, which the name indicates.

Divisions. This state, constituted in 1796, is divided into 5 districts; 2 in East-Tennessee, viz. Washington and Hamilton; and 3 in West-Tennessee, viz. Winchester, Mero, and Robertson. The terms East and West-Tennessee were first adopted, for convenience, in an act of congress; by which a federal district court was established at Knoxville, for the settlement east of Cumberland mountain, and another at Nashville, for the settlement west; a wide wilderness intervening. This wilderness was afterwards purchased of the Cherokees; and the *settlements* have extended so as to come in contact with each other. But the names continue; and as the state is too long for its width, and is intersected by a high mountain, its two divisions will probably be always distinguished by different appellations; and finally become two states.

The following is a table of the districts, with their several counties, and the town in each, in which the courts are held, beginning at the eastern extremity, and proceeding westward.

Districts.	Counties.	No. inhabitants.	Towns.
Washington	Carter	4,190	Elizabethtown
	Sullivan	6,847	Blountville
	Washington	7,740	Jonesborough
	Greene	9,713	Greeneville
	Hawkins	7,643	Rogersville
Hamilton	Cocke	5,154	Newport
	Jefferson	7,309	Dandridge
	Sevier	4,595	Sevierville
	Grainger	6,397	Rutledge
	Knox	10,171	Knoxville
	Blount	3,259	Maryville
	Claiborne	4,798	Tazewell
	Anderson	3,959	
	Roane	5,581	Kingston
	Campbell	2,668	
	Rhea	2,504	
	Bledsoe	8,839	
Winchester	Overton	5,643	Monroe
	Jackson	5,401	Williamson
	White	4,028	Sparta
	Warren	5,725	Macminville
Mero	Sumner	13,792	Gallatin
	Wilson	11,952	Lebanon
	Rutherford	10,265	Jefferson
	Robertson	7,270	Springfield
	Davidson	15,608	Nashville
	Williamson	13,153	Franklin
	Maury	10,359	Columbia
	Franklin	5,730	
	Hickman	2,583	
Robertson	Montgomery	8,021	Clarkesville
	Stewart	4,262	
	Dickson	4,516	
	Bedford	8,242	
	Giles	4,546	
	Humphries	1,511	
	Lincoln	6,104	
	Smith	11,649	

Tennessee is entitled to 6 representatives to congress.

Original Population. Like most of the western countries, its primary inhabitants, who seem by the abundant remaining monuments to have occupied it for several centuries, are supposed to have at length migrated to Mexico.

Historical Epochs. About the middle of the last century, the Shawanee Indians, who lived on the Savannah river, in Georgia, removed and settled themselves on the Cumberland river, near the present site of Nashville. They were not suffered, however, long

to remain in this fine country; but were driven off by the more powerful Cherokees.

This country was included in the second charter granted by Charles II. to the proprietors of Carolina; and in a subsequent division it was made a part of North-Carolina.

Its situation was so remote from the sea board, beyond rude mountains, and exposed to savages, that no settlement of white people was begun, till near the commencement of the revolutionary war. The first settlers stationed themselves on the Watauga river. Here they continued several years unnoticed by the government of North-Carolina, and under no laws but those of their own making. Their operations in the war were connected with those of the western settlers of Virginia.

The year 1776 was signalized by a formidable invasion of the Cherokees. Their intention was to depopulate the country, as far as the Kanhawa, because this brave people had rejected, with a noble firmness and indignation, the proposals of Henry Steuart and Alexander Cameron for joining the British standard, and were almost unanimous in their resolution to support the measures of Congress. This invasion issued in a total defeat of the Indians. The first appearance of any persons from this district, in the public councils of North-Carolina, was in the convention that formed the constitution of that state in 1776.

Tennessee became a distinct territorial government in 1790, and in 1796 was erected in due form into an independent state, making the 16th in the union.

Antiquities. Vestiges remain of ancient dwellings, towns, and fortifications, with mounts, barrows, utensils, and images, wherever the soil is of a prime quality and convenient to water, throughout the country. The growth of forests over these relics demonstrates, that the country was evacuated at least 500 years ago, and more probably nearer a 1000.

The bodies of two of these people were discovered in the autumn of 1810, in Warren county; one of a man, the other of a child to appearance about 4 years old. They were 4 feet below the surface, in a situation perfectly dry, the earth being a mixture of copperas, alum, sulphur, nitre, &c. Their skin was preserved, though its original complexion could not be ascertained; and their hair, which was auburn. The child was deposited in a basket, well wrought of smooth splits of the reed; (*arundo gigantica*;) and several singular species of cloths, as well as deer skins, dressed and undressed, were wrapped round and deposited with them, and two feather fans and a curious belt.

Religion. The most numerous denominations of Christians in this state are Methodists, Baptists, and Presbyterians. There are a few societies of the Scotch Seceders, and a few Friends. Many of the preachers are persons of limited attainments in learning; whose discourses consequently, are better calculated to excite the passions, than to enlighten the understanding. But great good, it is apprehended, has been done by their instrumentality.

The buildings erected for public worship, are very ordinary. In

a new country splendid edifices are not to be expected. But from the increase of population and wealth in Tennessee, which contains many professors of religion, larger and more convenient places for public worship, will doubtless soon be erected.

Government. By the constitution of this state, which was formed and ratified at Knoxville, Febuary 6, 1796, the legislative authority is vested in a general assembly, consisting of a senate and house of representatives. The number of representatives is to be fixed once in seven years, by the legislature, according to the number of taxable inhabitants, who are to be numbered septennially, the number of representatives not to exceed 26, until the taxable inhabitants shall be 40,000,

The senators are never to be less than one third, nor more than one half the number of the representatives, and are to be chosen upon principles similar to those for the choice of representatives. The election for members of both houses is biennial. Having been three years in the state, and one in the county, immediately preceeding election, possessing 200 acres of land in the county, and being 21 years of age, render a man eligible to a seat in either branch of the legislature. Each house may choose its own officers, judge of the qualifications and elections of its own members, and make its own rules. Senators and representatives, during their session, and in going to, and returning from the same, are privileged from arrests in all cases except treason, felony, or breach of the laws, and are not answerable for any thing said in either house, in any other place.

When vacancies happen, the governor shall issue writs of election to fill up such vacancies. Neither house can adjourn for more than three days without the other. Bills may originate in either house—shall have three several readings, and being once rejected, shall not be passed into a law the same session.

The doors of each house shall be kept open.

The salaries of the governor, judges of the supreme court, secretary, treasurer, attornies, and members of the legislature are fixed until 1804.

No person holding an office under the authority of the United States can have a seat in the general assembly, nor can any person hold more than one lucrative office at the same time.

The executive power of the state is vested in a governor, who is chosen by the electors of the members of the legislature; the person having the highest number of votes is chosen. Contested elections for governor are determined by both houses.

The governors are to be chosen biennially, and are eligible six years out of eight—are commanders in chief of the army and navy, except in the service of the United States.

Every freeman of 21 years of age, possessing a freehold in the county, and having been an inhabitant of the state for six months preceding, may vote for the members of the legislature. The house of representatives have the sole power of impeaching, and the senate of trying impeachments. The judicial power is vested in courts of law and equity. County officers are, sheriffs, coroners, trustees,

and constables. Military officers are to be elected by persons subject to military duty. Ministers of the gospel are not eligible to a seat in the legislature. No person who denies the existence of God or a future state can hold any civil office. The oath of allegiance and of office is to be taken by persons holding any office of trust or profit.

When two thirds of the general assembly think it necessary to amend or change the constitution they are to recommend to the electors at the next election for members to the general assembly, to vote for a convention, and if there is a majority of votes for it, the general assembly at their next session shall call a convention, which shall consist of as many members as the general assembly, and be chosen in the same manner. They may revise or change the constitution. The constitution closes with a declaration of rights.

Population. The population, according to the last census, was as follows:

In East-Tennessee.		In West-Tennessee.	
Free people	91,991	Free people	125,201
Slaves	9,376	Slaves	35,159
Total	101,367	Total	160,360
Grand total	261,727.		

In 1791 the population was 35,691. In 1795, 77,262; of which West-Tennessee contained less than 12,000.

The inhabitants migrated chiefly from the Carolinas and Virginia. But there are intermingled settlers from most of the other states and from Europe.

Indians. There are no Indians in the state, except a few towns of the Cherokees; which are in East-Tennessee. South of West-Tennessee live the Chickasaws. The latter were always friendly to the white people; nor is there any probability, that they will wish ever to be otherwise. Some in both these nations are rich, and have attained to a considerable degree of improvement.

The lands between the Missisippi and the Tennessee rivers, and south of Duck river, are retained by the Chickasaws for hunting grounds; and they seem tenacious of their "goodly heritage." But when game is extinct, what should prevent them from selling?

The Cherokee claim lies east of the former, and includes the south part of the state, a very desirable tract. But hunting is already of little account there; and they will, probably, at no very distant period, relinquish all within the limits of Tennessee, except, perhaps, some inconsiderable portions.

Militia. There are several companies of cavalry in the state, and some of infantry, which are tolerably expert; though in general, the militia are far from being well disciplined. The number on the militia rolls, is between 20,000 and 30,000 men. But they would make excellent partizan warriors. Their hands and their eyes are familiar with the rifle. And they are too near the aboriginals, and too well acquainted with the wilderness, not to understand scouting. They are hardy and used to privations, and

must prove formidable to any enemy, that should attempt an invasion of their territory or of their rights.

Revenue. This is raised by taxation. But the taxes are low. Each 100 acres of land pays annually to the state only 12½ cents; a free poll, the same; and a slave, 25. Though there is commonly a county tax of nearly the same amount. And every merchant, or pedlar, pays 20 dollars a year in each county, where he exhibits his goods for sale.

Manners and Customs. In these particulars there is a greater resemblance between Tennessee and the southern states, than the northern. The character of the inhabitants, however, is not yet completely developed. Some practices, once ascendant, are discontinued. Billiards, so inauspicious to morals, are effectually proscribed; and gambling generally is less prevalent than formerly. Several years ago the assembly passed an act against the barbarous custom of duelling, disfranchising the parties concerned; since which no duel has occurred. On the whole the state of society is improving.

Language. The national language is used universally. Foreigners, coming by single families, and not in companies, as in some parts of the union, cannot preserve their different dialects, but are under a necessity of conforming to the language of the place.

Colleges and Academies. Acts of incorporation were passed, by the *territorial* government, for three colleges in East-Tennessee; one in Washington county, one in Greene, and the other in Knox. The first, called Washington college, is without funds; though numbers of youths have been educated there, under the tuition of the rev. president Doak, who deserves well for his assiduity. The second, called Greenville college, has some endowments, and is in a flourishing condition. Its president is the rev. Charles Coffin, D. D. The third is near Knoxville, and not at present in operation. It is, however, entitled to the benefits of a donation from congress, which, there is an expectation, will produce to it a capital of 50,000 dollars. And it is understood that some addition has been made by subscriptions from the people in that vicinity.

In West-Tennessee, there is a college at Nashville, recently established, by the name of Cumberland college. The building erected for the accommodation of the students is of brick, three stories high, and containing 22 rooms with fire places. The president's salary is 1500 dollars a year; who is assisted by a tutor at 1000. Connected with it is a preparatory school, the preceptor's salary 500.

Cumberland college is entitled to the proceeds of a donation from congress, equal to that conferred on the college near Knoxville, estimated, as before mentioned, at 50,000 dollars. It has also some other property.

The donation from congress for these colleges consisted of 100,000 acres of land. Another 100,000 they conferred also for the support of academies, one in each county. In 1806 a sale of these lands was authorised by a law of the state, at a dollar an acre, payable by ten equal annual instalments, without interest.

Acts were also passed instituting an academy in each of the counties then organized, and appointing trustees. But without waiting for a quotient of this dividend, several of the boards of trustees, especially in West-Tennessee, have already employed instructors, and their pupils are numerous. A spirit for education seems to be increasing.

Chief Towns. KNOXVILLE is situated in the county of Knox, on the north bank of the river Holston, (where a treaty was held with the Cherokees in July, 1791; it being then a wilderness) honored with this name after major general Henry Knox, then secretary of war, and is now the seat of government of this state. Its latitude is 35 42N.; distance from Philadelphia, 638 miles; from Baltimore, 543; and from Richmond, 458; to each of which there is a good waggon road. The superior courts of judicature for the district of Hamilton and the district federal courts for East-Tennessee are held here twice a year, and county courts four times. There were in this town in 1796 twelve stores. The town contained then about 80 dwelling houses, a large and handsome courthouse of stone, and several other public buildings. The number of inhabitants, in 1801, was 518;—free males 198, females 159, slaves 161. The increase since is not known.

NASHVILLE, situated on the south bank of Cumberland river, about latitude 36°, nearly 190 miles westward of Knoxville, is now the largest town in the state, and in a thriving condition. It contains a handsome brick courthouse, a markethouse, and a bank; and adjacent is Cumberland college. The federal circuit court for the state, and the federal district court for West-Tennessee, are held here; as well as the various county and state courts. Cotton is spun here by machinery, and there is also a manufactory of hemp. Most of the buildings, lately erected, are of brick. People of business flourish here, and it is surrounded by a fertile and increasing neighborhood.

Manufactures. In East-Tennessee there are several furnaces, forges, and bloomeries, for the manufacture of iron, a rolling and a slitting mill, and two paper mills. In West-Tennessee there are also several furnaces and forges, and one or more bloomeries, and a paper mill; also several machines for the spinning of cotton; and several for the manufacture of hemp and cotton into bagging, as well as ropewalks. Salt is also made in great quantities in this state.

Commerce. The principal exports from this state hitherto have been cotton and tobacco. But the people are beginning to raise hemp in large quantities. Corn, potatoes, beef, pork, lard, and fowls, are carried in boats to New-Orleans, to advantage. Many other articles would answer well. Potash is not made in the state; though most of the wood is suitable for it. Cheese and butter are not exported, and the former not manufactured, though the country might afford both in great plenty. Flour and indigo, peach brandy, cider, and whiskey, wool, feathers, and honey, might be added to the catalogue.

The banks of Cumberland are as inviting to the ship builder, as

those of Ohio; abounding with excellent materials. And the river rises high enough, in the wet season, to float vessels of any dimensions.

Goods imported are brought from Philadelphia and Baltimore to East-Tennessee in waggons; and to West-Tennessee principally by waggons as far as Pittsburgh, and then by water down the Ohio, and up the Cumberland. But Orleans sugar, and some other groceries, come up the Missisippi. The freightage to West-Tennessee by this channel, is about $5\frac{1}{4}$ dollars a hundred. And steam boats, it is expected, will soon facilitate importation and lessen the expence.

West-Tennessee is well situated to derive advantage from the commerce of the upper countries. It can easily supply itself with the commodities, which shall be exported from any of the vast regions about the Missouri, the Missisippi, and Ohio, and their numerous auxiliary channels; as well as supply them with certain articles, of which their climate forbids the cultivation.

The Missisippi is at present the greatest outlet for exports. But it is expected a water communication will be opened with the Mobile; between the Hiwassee and Coosee, for East-Tennessee, and between Occachappo and Tombeckby for West-Tennessee; by which the distance to tide water, will be much shortened; and *importation* in particular facilitated. It is expected also that the grand western canal in contemplation, which is to connect the western waters with the Hudson, through the lakes, will favorably affect the future commerce of this state, as well as of Kentucky and Ohio.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. SALT SPRINGS. RIVERS. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. CURIOSITIES.

Climate and Seasons. THE climate is agreeable; but the observations for describing it scientifically have not been attended to. It is estimated that the season of vegetation commences 6 or 7 weeks sooner than in New-Hampshire, and continues as much later, making a difference of three months.

Cumberland river has never been frozen over since 1797. In every winter there are cold spells, and generally a few snows; though winters have passed since that period, in which there was too little to be measured. Ten inches is a deep snow, and ten days an extraordinary term for its duration.

Nor are the summers much hotter, than in New-England; nor is the heat so sensibly felt. The nights are cooler, owing to their greater length. And as they are much shorter in winter, the general temperature is more equable.

Many parts of the state have proved as healthy as any section of

the globe. It is healthy generally, except where there are stagnant or sluggish waters, to generate noxious gases. In such places, intermittents occur, and other bilious diseases; especially with the people newly settled in such situations.

The piercing northerly winds that prevail during the winter in the Atlantic states, seldom affect the inhabitants on Cumberland river; for they have no great mountains to the northward or westward. The inhabitants of the Atlantic states are also subject to sudden changes in the atmosphere, arising from their vicinity to the ocean. The air that comes from the surface of the sea, especially from the warm gulf stream in winter, must be very different in its temperature from the air that comes across the cold and high mountains; but the great distance between the Cumberland settlers and the ocean, as many great mountains intervene, effectually secures them against the bad effects of those sudden changes. Northeasterly storms never reach this country.

Face of the Country. The face of the country is greatly variegated, exhibiting many beautiful vallies, and some extensive tracts, which are either level or gently sloping, especially in West-Tennessee. But there are parts of it broken and unfit for culture.

Parts of it are covered with aged forests; parts destitute of timber, called barrens; and there are many shrubberies, and many parcels of open woods without undergrowth.

Soil and Agriculture. The soil is a mixture; a great proportion of it clay. On Cumberland, Duck, and many of the rivers, it is of a very superior quality.

Corn is produced in abundance. It is excellent for hemp. Cotton does well; and so does wheat and other small grain, where the land is not too rich. It is tolerable for flax, and for sweet potatoes, as well as for the other kinds. Tobacoo grows thriftily; it will answer also for upland rice, and for indigo. Vines, garden plants, and fruit trees, grow luxuriantly; and, as far as experiments have been made, it produces the grasses, both for pastures and meadows. But of many of these articles the inhabitants are very negligent.

Salt Springs, &c. Salt springs and licks are found in various places, especially in West-Tennessee, but no works are yet erected for the manufacture of salt. East-Tennessee is supplied with it from King's works, or Preston's, in Virginia. It is boated down the Holston by the North Fork. West-Tennessee is supplied partly, from the same source, down the Tennessee and up the Cumberland, partly from Louisiana; partly from the Wabash, where it sells at 75 cents a bushel; and partly from several works in Kentucky, boated down the Cumberland. So ample is the provision made by the beneficent Creator, for a full supply of this indispensable commodity, that a scarcity can happen only through the negligence of man.

"On the waters of French Broad river, is a fine, large, clear, medicinal, warm spring. Numbers of persons from the Carolinas, Georgia, and the southern parts of Virginia, have experienced its salutary effects in various complaints. When the improved state

of the country shall afford sufficient accommodations, this spring will probably be as much resorted to as those of the back parts of Virginia, being more convenient to the southern states, and equally efficacious in healing diseases. The heat of the water is such, that at first going into it, it is hardly supportable."*

Rivers. East-Tennessee is *veined* by a number of boatable rivers, the principal of which is the Holston. This river rises in Virginia; and in Tennessee unites with a secondary branch, called the North Fork, 100 yards wide at the mouth, and boatable 60 or 70 miles.

Not far from their junction it receives the Watauga, from North-Carolina; and, a few miles above Knoxville, the French Broad, through a part of the same state, from South-Carolina. The latter enters the state of Tennessee at a breach of the mountain, which constitutes its eastern limit; and is boatable nearly up to that place. From the southeast comes in the Pigeon, and from the northeast the Nolachucky; both boatable.

Below Knoxville the Holston unites with the Tennessee, which rises near the confines of Georgia, and is boatable 30 or 40 miles.

Its junction with Clinch is lower, at the place called Southwest Point. Clinch rises among the mountains of Virginia; boatable, as estimated, 200 miles. In Anderson county it receives Powell's, a more westerly branch, boatable about 100 miles.

Several rivers not enumerated, and many creeks, contribute their share towards the noble collection of waters. Here boats may convene from several points in the Virginia line, and from near the limits of North-Carolina and of Georgia.

From this grand confluence the Tennessee rolling on in a southwestern direction, receives the Hiwassee from Georgia; crosses the boundary of Tennessee at the northwest corner of Georgia; then forms the arch of a circle in the Mississippi territory, of about 130 miles chord, usually called the Great Bend, recrosses the boundary; crosses the state in a northern direction; and reaches the the Ohio through the western extremity of Kentucky, about 60 miles from the Mississippi; its mouth being 600 yards wide.

From its entrance into the Ohio, to the Muscle shoals, 250 miles, the current is very gentle, and the river deep enough, at all seasons, for the largest row boats. The Muscle shoals are about 20 miles in length. The bed of the river in this distance, consists of broken stones, easily removed, and the navigation will admit of much improvement. At these shoals the river spreads to the width of three miles, and forms a number of islands, and is of difficult passage, except when there is a swell in the river. From this place to the *Whirl* or *Suck*, where the river breaks through the Great ridge, or Cumberland mountain, is 250 miles, the navigation all the way excellent.

The *Whirl*, as it is called, in about, latitude 35°. It is reckoned a greater curiosity than the bursting of the Potowmac through the Blue Ridge. The river, which a few miles above is half a mile

*Gov. Blount.

wide, is here compressed to the width of about 70 yards. Just as it enters the mountain, a large rock projects from the northern shore, in an oblique direction, which renders the bed of the river still narrower, and causes a sudden bend; the water of the river is of course thrown with great rapidity against the southern shore, whence it rebounds around the point of the rock, and produces the whirl, which is about 80 yards in circumference. Boats pass the whirl without danger or difficulty. Such is the situation of the shore that boats ascending the river may be towed up. In less than a mile below the whirl the river spreads into its common width, and except the Muscle shoals, already mentioned, flows beautiful and placid, till it mingles with the Ohio.

West-Tennessee is still better accomodated. Besides being bordered by the Missisippi, and bisected by the Tennessee, the Cumland ranges circuitously through seven or eight of its counties. It rises in Kentucky, and is navigable for boats more than 100 miles before entering Tennessee, and 400 afterwards. It joins the Ohio 10 or 12 miles above the mouth of the Tennessee.

Oby, a boatable river, proceeding from Cumberland mountain, unites with the Cumberland four miles after the entrance of the latter into the state.

Lower down, perhaps 80 or 90 miles, the Cumberland receives from the southwest, a large fork, 100 yards at the mouth, and boatable 40 or 50 miles, which, for want of another name, is called the Cany Fork. It originates on Cumberland mountain; west of which it receives Holly river, from the northeast; and afterwards Rocky river, from the southeast; another, called Falling Water from the northeast; and Collin's river from the south.

Stone river, from the southeast enters the Cumberland 8 or 9 miles above Nashville; boatable to Jefferson.

Lower down the Harpath comes in; and near Clarkesville the Red river, from the east.

Elk river and Duck are also worthy of particular mention; the former entering the Tennessee near the Muscle shoals, and the latter lower down; both boatable a considerable distance.

"Wolf, Hatchee, Forked Deer, Obion, and Reelfoot rivers discharge themselves immediately into the Missisippi. These rivers in general are deep, flow with a gentle current, and are unincumbered with rocks and rapids; most of them have exceedingly rich low grounds, at the extremity of which is a second bank, as on most of the lands of the Missisippi. Besides these rivers, there are several smaller ones, and innumerable creeks, some of which are navigable; in short, there is hardly a spot in this country which is more than 20 miles from a navigable stream."*

Mountains. The mountains of this state are ribs of the Allegany. Stone, Yellow, Iron, Bald, Smoky, and Unaka mountains, are names applied to different portions of that grand ridge, which separates it from North-Carolina. Its general course, as well as that of most of the others, is nearly from the northeast to the southwest.

* Gov. Blount.

The principal mountains between this and the Cumberland mountain, are Bay's mountain, Copper ridge, Clinch mountain, Powell's mountain, and Walling's ridge. They are of enormous length, and nearly parallel to each other, and between them there are excellent vallies, several miles in width.

Cumberland mountain is the largest eminence in the state. Its summit is extensive, and much of it level. There are several roads across it, and settlers along those roads. And though the soil is meagre, it answers for clover, small grain, and orchards. It gives origin to various rivers and creeks; some of which fall into the Clinch, some into the Tennessee, and some into the Cumberland.

The Cumberland mountain, in its whole extent, from the Great Kanhawa to the Tennessee, consists of the most stupendous piles of craggy rocks of any mountain in the western country. In several parts of it, for miles, it is inaccessible even to the Indians on foot. In one place particularly, near the summit of the mountain, there is a most remarkable ledge of rocks, of about 30 miles in length, and 200 feet thick, shewing a perpendicular face to the southeast, more noble and grand than any artificial fortification in the known world, and apparently equal in point of regularity.

West-Tennessee is not mountainous. Parts of it are broken with ridges and knobs, but much of it is sufficiently level.

Botany. The kinds of trees and plants found in this state, are poplar, hickory, black and white walnut, all kinds of oaks, buckeye, beech, sycamore, black and honey locust, ash, hornbeam, elm, mulberry, cherry, dogwood, sassafras, papaw, cucumber tree, coffee tree, and the sugar tree. In the eastern district is a species of pitch-pine, useful for boards, timber, and tar. The undergrowth, in many places, and especially in low grounds, is cane, some of which is upwards of 20 feet high, and so thick as to prevent any other plant from growing; there are also Virginia and Seneca snakeroot, ginseng, Carolina pink, angelica, senna, lobelia, Indian physic, spicewood, wild plum, crab apple, haws, hazlenuts, sweet anise, red bud ginger, spikenard, wild hop, and grape vines. The glades are covered with wild rye, wild oats, clover, buffalograss, strawberries and pea vines. On the hills, at the heads of rivers, and in some high cliffs of Cumberland, are found majestic red cedars; many of these trees are 4 feet in diameter, and 40 feet clear of limbs.*

Zoology. The bison, misnamed buffalo, which abounded in West-Tennessee at the time of its first settlement by white people, has been long since totally exterminated. And no more can the hunter display among his trophies an elk's skin or a panther's. Bears and wild cats also are becoming scarce, and beavers so rare as to be a curiosity. A remnant of wolves still lurk in the forests, but seldom commit depredations upon sheep, probably, because, in so genial a climate, they acquire their sustenance on easier terms.

But the common deer is still so plenty, that venison bears but a moderate price. And there is no scarcity of racoons, foxes, o-

* Gov. Blount.

possums, and grey squirrels. There is also an abundance of rabbits; and some ground hogs, called in New-England, woodchucks; and polecats, another appellation for skunks; and in East-Tennessee there is another species of squirrels, larger than the grey, of a yellowish hue, known by the name of fox squirrels. The other quadrupeds are, ground squirrels, flying squirrels, rats, mice, and moles, and perhaps a few minxes.

All the species of birds common in the United States are found in this country. Wild turkies continue in many parts to be numerous, as do partridges, which in New-England are perhaps with more propriety called quails. They seem indeed to increase, and in some years the pigeons are innumerable. There are a few pheasants, or New-England partridges, and several species of ducks. Parroquets are plenty in West-Tennessee, chiefly in the neighborhood of salt licks. Eagles, hawks, owls, and jays, common and carrion crows, and turkey buzzards, belong to the choir, as well as red birds, sparrows, thrushes, humming birds, and a variety of others.

The rivers contain various kinds of fish; some of them large and of an excellent flavor. There are no trouts, and those called salmon, are a species different from the salmon of New-England. Some of the fish caught, are gars, eels, pike, catfish, buffalofish, drumfish, redhorse, &c. Some catfish have been caught that weighed upwards of 100 pounds; and the western waters being more clear and pure than the eastern rivers, the fish are in the same degree more firm and savory to the taste.* In 1799, a fish was caught in the Holston a few miles below Knoxville, of a species unknown there. It was about 6 feet long. The scales, which were large and thick set, gave fire by collision with a flint, like steel.†

Some alligators, but not of the largest dimensions, have "worked their passage" up the Missisippi, Ohio, and Cumberland, to the Cany Fork.

Bones and teeth of the mammoth have been discovered in West-Tennessee, in several places. And in 1810 the bones of an extinct species of clawed animals were found in a nitrous cave, in White county, one of the claws of which, though partly decayed, weighed a pound and an half.

Mineralogy. Iron ore is found in abundance both in East and West-Tennessee, enough for their own wants and to supply the lower countries, which are said to be destitute. Copperas is made in West-Tennessee, which contains a profusion of this mineral, as well as of alum. A great deal of saltpetre is also manufactured in the state, from the nitrous caves; sold, generally, at 12½ cents a pound. Some lead mines have been discovered.

In the mountains there is a plenty of gritstone, from which good grindstones are made. In many places there are suitable rocks for millstones. In West-Tennessee are vast beds of slate, generally of a dark hue, and impregnated with bitumen. There is a variety of excellent flint; different sulpherets; many beds of fossil coal, as

* Gov. Blount. † Fisk.

well as indications, in innumerable places, of more. Marble is talked of, and probably will be found in many places. But the principal rocks are limestone, which pervade almost the whole country. In West-Tennessee all quarries of whatever kind of rocks are horizontal. In East-Tennessee, they are generally inclined, but some are vertical.

Curiosities. Caves are very numerous; there are also many streams of water, which, after running awhile upon the surface, are lost in a subterranean passage. In White county, there is a mill on one of these subterranean streams, under ground. The country contains many petrifactions, of different kinds. In East-Tennessee there are several intermitting springs, and a remarkable one in the adjacent parts of Virginia.

Under this head we mention the *Enchanted Mountain*, about 2 miles south of Brasstown,* on the borders of Tennessee.

There are on several rocks a number of impressions resembling the tracks of turkies, bears, horses, and human beings, as visible and perfect as they could be made on snow or sand. The latter are remarkable for having uniformly 6 toes each; one only excepted, which appears to be the print of a negro's foot. By this we must suppose the originals to have been the progeny of Titan or Anak. One of these tracks is very large, the length of the foot 16 inches, the distance of the extremes of the outer toes 13 inches, the proximate breadth behind the toes 7 inches, the diameter of the heel ball 5. One of the horse tracks is likewise of an uncommon size, the transverse and conjugate diameters are 8 by 10 inches; perhaps the horse which the great warrior rode. That these are the real tracks of the animals they represent, appears from the circumstance of a horse's foot having apparently slipped several inches and recovered again, and the figures having all the same direction like the trail of a company on a journey. If these tracks are a *lusus naturæ*, the old dame never sported more seriously. If the operation of chance, perhaps there was never more apparent design. If done by art, they might be intended to perpetuate the remembrance of some remarkable event of war or engagement fought on the ground. The vast heaps of stones near the place, which are tombs of warriors, slain in battle, seem to favor the supposition. The texture of the rocks is soft. The part on which the sun has the greatest influence, and which is the most indurated, is easily cut with a knife, and appears to be of the nature of the pipe stone. Some of the Cherokees entertain an opinion that it always rains when any person visits the place, as if sympathetic nature wept at the recollection of the dreadful catastrophe, which those figures were intended to commemorate.

The springs, which are said to be the sources of some branches of the Tugulo, Apalachicola, and Hiwassee rivers, are very near neighbors in these mountains. A person may visit all these sources in the space of 10 minutes. Their situation is in the form of a triangle, the sides perhaps from 150 to 200 yards.†

* Brasstown is situated on the head waters of Tennessee river, about 100 miles a little east of south from Knoxville.

† The foregoing account was furnished chiefly by Moses Fisk, esq. of Tennessee.

SOUTH-CAROLINA.*

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. ORIGINAL POPULATION. RELIGION. GOVERNMENT. POPULATION. MILITIA. REVENUE. MANNERS AND CUSTOMS. LITERATURE. CITIES AND TOWNS. ROADS. BRIDGES. INLAND NAVIGATION. MANUFACTURES. COMMERCE.

Extent. THIS state lies between lat. 32° and 35 8 N.; and between lon. 78 24 and 83 30 W. The greatest length of the state, from the mouth of the Santee to the N. W. angle, is upwards of 340 miles. The breadth on the coast is 170 miles, but it is generally much less; and, at the farthest extremity, it terminates in a point. It contains 24,080 square miles; of which 14,510 are between the falls of the rivers and the Atlantic, and 9,570 above the falls.

Boundaries. On the N. and N. E. by North-Carolina; on the E. by the Atlantic; and on the S. W. and W. by the Savannah and Tugulo rivers, which separate it from Georgia.

Divisions. This state is divided into 28 districts.

Districts.	No. inhab. in 1800.	No. inhab. in 1810.
Charleston	57,480	63,179
Chester	8,185	11,479
Spartanburgh	12,122	14,259
Laurens	12,809	14,982
Marlborough	18,299	4,966
Darlington		9,047
Chesterfield		5,564
Union	10,235	10,995
Fairfield	10,097	11,857
Pendleton	20,052	22,897
Newberry	12,006	13,964
Marion	6,914	8,884
Lexington	15,766	6,641
Williamsburgh		6,871
Orangeburgh		13,229
Lancaster	5,012	6,318
Edgefield	18,130	23,160
Georgetown	22,938	15,679
Horry		4,349
Barnwell	7,376	12,280
Abbeville	13,553	21,156

* The following description of South-Carolina has been improved from MS. remarks by judge Dessaussure, but more largely from Dr. Ramsay's late excellent history of this state, in 2 vols. 8vo. 1809.

Districts.	No. inhab. in 1800.	No. inhab. in 1810.
Kershaw	7,340	9,867
Greenville	11,504	13,133
Sumpter	13,103	19,054
Beaufort	20,428	25,887
York	10,248	10,032
Richland	6,097	9,027
Colleton	24,903	26,359
Total	345,591	415,115

This state is entitled to 9 representatives to congress.

Name. This was a part of the *Florida* of the early Spanish and French, and of the *Virginia* and *South-Virginia* of the early English voyagers. With North-Carolina and Georgia it received the name of *Carolana*, in 1630; and, that of *Carolina*, in 1663. The name of *South-Carolina* was given it, when it was separated from North-Carolina, in 1729. It then included Georgia.

History. The coast of this state was discovered by the early American voyagers. It was included in South-Virginia, as limited by king James's patent of 1606; and, with North-Carolina and Georgia, constituted the country of *Carolana*, as described in that of Charles I. (to sir Robert Heath) in 1630. In 1663 Charles II. granted the same tract, to the earl of Clarendon and others, calling it *Carolina*. Two years after, the king gave a second charter to the same persons with an extension of privileges.

In 1670 the first settlement was made under gov. Sayle, at Port Royal; who removed with his colony, the next year, and planted old Charlestown, on the west bank of Ashley river, and 9 years after they abandoned that settlement and began to build on the present site of Charleston. Mr. Locke's constitution for the government of Carolina, arrived in 1670, and though for a while in operation, was found wholly inadequate to the state and necessities of the colony.

In 1672 the Spaniards of St. Augustine made an unsuccessful attempt to disturb the peace of the settlers. The first assembly of the whole province met two years afterwards at Charlestown.

In 1682 the province was divided into 3 counties. A colony of French refugees, in 1690, exiled in consequence of the revocation of the edict of Nantz, settled in Carolina. The proprietors, in 1693, wholly abolished Mr. Locke's constitution, and restored the people to their rights under their charter. The next year rice was introduced into the province, from Madagascar, by gov. Thomas Smith. The church of England was established, by law, in 1703.

The French and Spaniards, from St. Augustine, invaded Charlestown, in 1706, but were repulsed with loss. The *Yamassees*, a powerful tribe of Indians, invaded Charlestown, in 1715, and were defeated. The colonists throughout Carolina threw off the proprietary government, in 1719, and established one for themselves. The next year the privy council sanctioned their proceedings; and, in 1729, parliament, for 17,500*l.* purchased the territory of the proprietors for the crown, when it was divided into two provinces of North and South-Carolina.

A Swiss colony settled at Purysburgh in 1733, a German colony at Orangeburgh in 1735, and an Irish colony at Williamsburgh in 1737.

In 1740 a most formidable insurrection of the negroes took place, which was instigated by the Spaniards. The culture of the indigo plant was introduced into South-Carolina, 1743, by Miss Lucas.

In 1752, 1600 foreign Protestants arrived in Carolina.

The province suffered severely from the incursions of the Cherokees in 1760; and, the following year, completely reduced them.

In 1764, a large colony of Germans settled the town of Londonderry. The peace of South-Carolina was threatened, in 1768, by back country settlers, under the name of Regulators.

In 1769 this, with the other provinces, began openly to resist the oppressive measures of the British ministry.

In 1774 an insurrection of the tories in this state was suppressed.

The British troops occupied Charleston, and a considerable part of Carolina, in 1780. Several actions were fought here during that and the succeeding year, the most decisive of which was the battle of Eutaw Springs, in 1781, which, in effect, terminated the war in this state.

The constitution of the state was agreed on in 1790.

Original Population. When South-Carolina was settled by the English, it was in the occupation of 28 nations or tribes of Indians. The principal of these were the Cherokees, the Catawbas, the Creeks, the Chickasaws, and the Choctaws. The Cherokees inhabited the western part of the state, in the districts of Pendleton and Greenville; they ceded this territory to Carolina in 1777, and now reside beyond the mountains. The Catawbas were settled in the northern part of the state, and still keep part of their original possessions, at present occupying a tract of country 15 miles square, on each side of Catawba river. They are fast decreasing. Of the 28 original tribes, 26 have entirely disappeared.

Religion. In this state there are 10 Episcopal churches, 3 of which are in the city of Charleston, and 16 clergymen of this denomination, 4 of whom have no cures. They have a bishop.

The Presbyterians of different descriptions are organized in five presbyteries, viz. The presbytery of Charleston, the most ancient in the state, consisting of 5 churches; two in the western part of the state, consisting of more than 20 ministers, who have in their connexion more than 60 congregations; another presbytery, recently formed, embraces several churches in Georgia, with a number in the lower parts of Carolina; and a presbytery of seceders, consisting of 9 ministers, and having under their care 22 congregations. The first and last excepted, these presbyteries are in connexion with the general assembly of the Presbyterian church.

The Baptists have 5 associations, consisting of 100 ministers, 130 churches, 10,500 communicants, and about 75,500 adherents.*

The Independents or Congregationalists have 7 churches, and 6 ministers.

* Ramsay's Hist. vol. ii. p. 25, 28.

The Methodists have 26 travelling, and upwards of 90 local, preachers, who preach about 18,000 sermons annually, for a compensation of $2080.* They have about 200 churches or stations for preaching, which cost, on an average, but about $135 each.

Beside the above, there are a few German and French Protestants, Quakers, Roman Catholics, and Jews. The greater part of these denominations reside in the city of Charleston.

The constitution of this state tolerates all religions, and "those individuals, also, who keep aloof from all religious societies."†

Several benevolent institutions have been established in this state for the benefit of elderly and disabled ministers, and their widows and orphan children.

It will be pertinent to add, under this head, the following interesting account of the orphan house establishment in the city of Charleston,‡ and this cannot be better done than in the words of the eloquent and celebrated historian of the state.

"Though the different sects in Charleston have been long separated from each other by distinct religious property, and different modes of worship, yet in one instance there is a communion of all Christians highly honorable to human nature. It often happened that persons, whose daily wants were supplied by their daily labor, departed this life, leaving helpless orphans without any prospect of education; and often without the means of support. Instances of this became so numerous as to require a systematic arrangement for their accommodation. The business was taken up with ardor. By donations of individuals, and appropriations from the city treasury, a spacious building, called the Orphan house, was erected at the close of the eighteenth century, in which about 130 orphans are successively fed and clothed. They also receive the rudiments of a plain education. One thing was wanting: no means had been provided for their religious instruction. The bounty of individuals and of the public soon added a church for the performance of divine service for their benefit, and of such of the inhabitants as chose to attend with them. The clergy of all denominations of Christians, with consent of their respective congregations, concurred in performing divine service in a routine fixed by the managers of the institution. Thus a free church was constituted in which the gospel was preached without expense, not only to the orphans, but to all who chose to attend. It is remarkable that in the various services which have been performed by the clergy of different sects of Christians, nothing has been at any time introduced savoring of the peculiarities of sect or party. The truths of the gospel in which all Christians are agreed, and the principles of morality sanctioned by universal consent, have been the only topics brought forward. The astonished hearers, consisting of Jews and Gentiles, Catholics and Protestants, Christians and infidels, found that all religions tended to make men better; and that good men of all de-

* Ramsay, p. 31. † Ibid. p. 40.

‡ This excellent institution is under the direction and management of 12 gentlemen and 12 lady commissioners, and these are selected from among the first characters in the city.

nominations substantially meant the same thing. They wondered at the contentions of Christians, for they perceived that they all agreed on matters of the greatest moment, and only differed on subjects of minor importance.* From charity in giving, an unexpected transition was made to charity in thinking. When they intended nothing more than to relieve the necessities of the fatherless, they found their minds gradually cleared from that narrowness of thinking, which leads bigots of all descriptions, to suppose themselves exclusively right, and all others wrong. Their minds expanded with good will and charity to their fellow citizens, though differing from them in modes and forms.

These are some of the good consequences which have resulted in Charleston from the establishment of a charitable institution on a broad basis, and still more extensively over the whole state from placing all religious denominations on an equal footing, without discrimination or preference".†

Government. The legislature consists of a senate and house of representatives. The senate is composed of 43 members, chosen every 4 years, by districts. A senator must be a free white man, 30 years of age, must have been a citizen and resident in the state the 5 preceding years; and, if a resident in the district, must be worth 300*l.* sterling; if not, 1000*l.* Half of the senators are chosen every 2 years. The house of representatives consists of 124 members, chosen every two years, by districts. A representative must be a free white man, 21 years of age; must have been a citizen and resident in the state the three preceding years; and, if a resident in the district, must be worth 500 acres of land and 10 *negroes*, or a real estate valued at 150*l.* sterling; if not a resident, he must have a freehold worth 500*l.*

The governor is chosen, every two years, by a joint ballot of both houses. He can hold the office only two years in six. He must be 30 years of age, and possessed of a real estate worth 1500*l.* sterling; and, must have been a citizen and resident 10 years. A lieutenant governor is chosen for the same time and must have the same qualifications. The governor has power to pardon, except in cases of impeachment.

Justice is administered in the state by courts of law and courts of equity. The state is divided into 28 law districts, which are thrown into 5 circuits. Six judges, with each a salary of 600*l.* who hold their offices during good behaviour, constitute this court. A

* While we highly commend the catholic spirit of this admired historian, we apprehend the two preceding sentences will admit of a construction, which his known correct views, of the peculiar doctrines of the gospel, would forbid. It is no part of *Christian* charity, to consider *Jews* and *Gentiles*, Catholics and Protestants, Christians and *infidels*, as "all agreed on matters of the *greatest moment*, and as differing *only* on subjects of *minor importance*."—Nor do we believe the author's sentiments are expressed in the obvious sense of these sentences. They are exhibited clearly, at large, in his memoirs of Mrs. RAMSAY, a work which does much credit to the talents and heart of the author, and exhibits, with great truth, one of the best female characters, that has ever adorned this or any other country.

† Ramsay's Hist. Carolina, vol. ii. p. 43.

judge goes round each circuit, twice a year, with power to try all civil and criminal cases with the aid of a jury. After the close of the circuit, the judges assemble, and determine motions in arrest, and petitions for new trials. The state is also divided into 9 equity districts, which are formed into 3 circuits. Five judges, with the same salary and tenure of office, constitute this court. A judge goes round each circuit, twice a year, to hear all cases in equity; and, at the close of the circuits, the judges assemble to hear appeals.

Population. The following numbers are the result, partly of estimates made at the time, and partly of actual enumerations:

1700	5,500 whites		1790	130,178 whites 107,094 slaves 1,801 free bl.	239,073
1721	14,000 whites				
1723	14,000 whites 18,000 blacks	32,000			
1734	7,333 whites 22,000 blacks	27,333	1800	196,255 whites 146,151 slaves 3,185 free bl.	345,591
1750		30,000			
1765	40,000 whites 90,000 blacks	130,000	1810	214,201 whites 196,365 slaves 4,554 free bl.	415,115

The items of the census of 1810 were as follow:

	males.	females.	total.
Under 16 years of age	56,862	54,126	110,988
Between 16 and 45	41,421	39,562	80,983
45 and upwards	11,304	10,926	22,230
Total	109,587	104,614	214,201

The increase in the first 10 years was 96,518; in the second 10, 69,524. The increase of whites in the last 10 years was 17,946, or 9¼ per cent.; that of the blacks was 51,583, or 34½ per cent. This great disproportion is, in part, owing to the importation of slaves from Africa, which was permitted by the legislature of this state, till the national law prevented it; and, in part, to intermixture. The blacks will considerably outnumber the whites at the next census, should the increase be in the proportions above mentioned, as they do already in the flat country. The proportion of blacks to whites is much greater in this, than in any other state. It is nearly as 20 to 21. South-Carolina, at the first and second enumerations, was, in point of population, the seventh state; and at the third, the sixth. In black population it was the third at the first; and the second at the second and third. "In the year 1755 the country, from the Waxhaws, on the Catawba, across to Augusta, on Savannah river, did not contain 25 families. Within the same limits, in 1809, there were 12 large and populous districts." In one of these districts, containing 17,000 white inhabitants, there is not a woman of the age of 25, who is not a wife or a widow.*

Militia. The militia of this state is at present respectable. It is divided into 2 grand divisions, each commanded by a major general. These divisions comprehend 9 brigades, 39 regiments of in-

* Ramsay's Hist. vol. ii. p. 600, 602.

fantry, 8 regiments and a squadron of cavalry, and 1 regiment and a battalion of artillery, besides artillery companies, which are attached to some of the regiments of infantry. The brigades are commanded by as many brigadier generals, and the regiments are commanded by lieutenant colonels. The governor is commander in chief of all the militia of the state, both by land and sea. This increases every year. At present it approaches to 40,000 men

The militia thus organized, are particularly under the direction of a brigade inspector, with the rank of major for each brigade; and of an adjutant general holding the rank of lieut. colonel, who superintends the whole, and reviews the militia regimentally throughout the state from year to year. The duties of the brigade inspectors are to attend the regimental and battalion meetings of the militia, composing their several brigades during the time of their being under arms, to inspect their arms, ammunition, and accoutrements, superintend their exercise and manœuvres. The duties of the adjutant general are to receive and distribute orders from the commander in chief to the several corps, to attend all public reviews, when the commander in chief shall review the militia, to furnish blank forms of different returns, to receive from the several officers of the different corps throughout the state returns of the militia under their command, reporting the actual situation of their arms, accoutrements, and ammunition, their delinquencies, and every other thing that relates to the general advancement of good order and discipline. From all which returns he is to make proper abstracts, laying the same annually before the commander in chief of the state.

Revenue. The average of taxes annually collected, is about 135,000 dollars. and the state receives from other sources about 175,000 dollars, making in the whole a revenue of $310,000. The expenditures on an average amount to about 220.000. In 1804, the state had a balance in their treasury of $754,775, 300,000 of which they invested in the stock of their state bank, and with part of the remainder they endowed the college at Columbia. The legal rate of interest in this state is 7 per cent. The taxes are on lands and negroes. The lands, for the purpose of being taxed according to their value, are divided into three grand divisions; the first reaches from the sea-coast to the extent of the flowing of the tides; the second, from these points to the falls of the rivers; and thence to the utmost verge of the western settlement makes the third. These grand divisions, for the sake of more exactly ascertaining the value of the lands, are subdivided into 21 different species. The most valuable of which is estimated at six pounds, and the least valuable at one shilling per acre. Half per cent. on the value thus estimated, is levied from all granted lands in the state. The collection of taxes is not annexed to the office of sheriff, but is committed to particular gentlemen appointed for that purpose, who are allowed two and a half per cent. in Charleston, and five per cent. in the other parts of the state, on all they collect.

Manners and Customs. In the back country, the inhabitants are generally farmers on the New-England plan; they have few or no

slaves, and cultivate their own lands. They live however chiefly on plantations. In the low country almost all the whites live on plantations. The only labourers here are slaves, and the blacks constitute more than half of the inhabitants. The evils necessarily attendant on slavery are of course extensively felt.

Among the virtues of the Carolinians, Dr. Ramsay enumerates the love of liberty, hospitality, charity, and a sense of honor. Among the vices, drunkenness, a disposition to contract debts, and indolence. Hunting both as a business and a diversion has always been useful and fashionable in Carolina. Dancing is a favorite diversion among the young people. Great attention is paid to music, and many attain to excellence. The complexion of the Carolinians inclines to a greater degree of sallowness, than is common in more northern latitudes. The inhabitants of Carolina may be divided into four classes. The *planters*, who have large incomes, live at their ease, are high minded, and possess much of that dignity of character, which constitutes an independent country gentleman. The farmers are more active, depend on their own exertions and have few or no slaves. The *cottagers* have no slaves, and being unable to procure the place of overseers, have no resource but irregular employment, to obtain a subsistence. The lowest class, called *squatters*, have always been nuisances. Settling on any man's land—paying no rent—cultivating little or no ground—they live ostensibly by hunting, but often shoot the domestic animals of their more industrious neighbors. This last class are rapidly diminishing.

"The female character appears to great advantage in Carolina. The women are generally well educated. Many of them have highly cultivated minds and refined manners. The name of the family always depends on the sons; but its respectability, comfort, and domestic happiness, often on the daughters. While young they enter into amusements with the vivacity natural to their age; but this vivacity is in general so well tempered by sweetness of disposition, and discretion, as leaves little room for anxiety to their parents with regard to their future conduct. No pursuit of pleasure interferes with duty to a father or affectionate attention to a brother; so that the happiness as well as cheerfulness of a family is increased in proportion to the number of daughters. When they become wives and mothers they are devoted to their families—they regard their husband's friends and relations as their own. They follow no amusement incompatible with their new duty, but seek to "make well ordered home man's best delight:" nor are there wanting examples of those who, remaining single, perform admirably well the duties of daughters, sisters, and friends, and have been eminently useful in assisting to train up and educate their younger connexions. They are capable of enjoying prosperity with zest, and of bearing adversity with dignity. Their virtues were put to a severe trial in the American revolution, and the result was highly in their favor. When they are left widows, though with small means, large families, and great embarrassments, they, in many cases, extricate the estate with wonderful address and de-

vote themselves to the education of their children. Speculating, intemperate, mismanaging husbands advance their families by dying and leaving to their widows the sole management of their embarrased fortunes. In the lower grades of life, where there are no fortunes to repair, the industry and economy of the wife produces similar results, eminently conducive to the advancement of the common interest."*

To the correctness of this character, the author, from a pretty extensive personal knowledge, can cheerfully add his testimony.

Literature. In 1785 three colleges were constituted in this state, on the same day, one at Charleston, one at Winnsborough, and the other at Cambridge; but they are colleges in *name* only, in truth only grammar schools. In 1795 the citizens of Beaufort preferred a claim to have a charter granted for a college to be erected in their vicinity. The advocates of the measure urged the uncommon healthiness of the place, the great number of their youth, and the danger of sending them from the wholesome air and pure morals of their native spot either to the capital or distant parts of the country. They prevailed so far as to obtain a charter and such funds as they could collect from the sale of escheated and confiscated property in the district, and also from the sales of the vacant lots in the town of Beaufort. The latter in a few years rose two or three hundred per cent. in value, and aided the funds of the institution beyond the expectation of its most sanguine friends. Suitable buildings for the accommodation of the students were erected, and schools set on foot preparatory to the college. The seminary blossomed well, but little fruit has yet been gathered; its prospects are brightening. Its funds amount to between 60,000 and 70,000 dollars. It has many natural advantages favorable to the proper education of youth.

The multiplication of colleges did not answer the end. Instead of yielding any more to the partial wishes of sections of the state, the assembly, in the year 1801, took up the business on its proper ground, and passed a law for building and endowing a college at the seat of government, by the name of the *South-Carolina College*. It is under the management of a board of trustees consisting of the governor, judges, and other great officers of state, and of 13 other gentlemen, selected for their character and talents. The instructors are a president, three professors, and two tutors. An extensive library and handsome philosophical apparatus have been presented by the state. The legislature has endowed this seminary with an annual income of $6000, and is constantly holding out to it a fostering hand. The college building is handsome, and will accommodate 600 students. This is their present number. The president's house is one of the best in the state, and those of the professors are very handsome. The institution is now flourishing.

There are academies at Charleston, two in Newbury district, one at Spartanburgh, a most respectable one in Abbeville district, and another at Pineville, in St. Stephen's district, and others in various parts of the state. There is a general and increasing desire among the inhabitants to give an education to their children. For-

* Ramsay.

merly those of wealthy parents were sent in considerable numbers to Oxford and Cambridge; now many more are sent to Harvard and Yale, particularly to the latter. The library society in Charleston possesses a large and well chosen library, which is increased annually by an importation of books to the amount of 300*l.* sterling. The South-Carolina society, formed in the year 1737, for the purpose of charitably educating poor children of both sexes, has a fund of $137,000, and supports a school of upwards of 70 children. The children are clothed as well as educated. There are several other incorporated societies, for the like benevolent purposes, in different parts of the state.

Cities and Towns. CHARLESTON is the largest town in the state, and in the whole country south of Baltimore; and the fifth in size in the United States. It is built on a peninsula, between Ashley and Cooper rivers, which unite immediately below the city, and form a capacious and convenient harbor. The tide here rises usually 6½ feet. The Ashley is 2100 yards wide opposite the town, and the Cooper 1400. Both are deep and navigable for large vessels. The town is 8 miles from the ocean, and its site is elevated but a few feet above the height of spring tides. It is a mile and a quarter long, and three quarters wide. The streets extend east and west between the two rivers; others intersect them nearly at right angles, from N. to S. They are from 35 to 70 feet in width. The new houses are of brick, and many of them are elegant. The public buildings are an exchange, a statehouse, an armory, a poor house, and an orphan house; 2 Independent or Congregational churches, 3 Episcopalian, 2 Presbyterian, 2 Methodist, 1 German Lutheran, 1 Baptist, 1 orphan house church, 1 French Protestant, 1 Friends, 1 Catholic, and 1 synagogue. One of the Congregational churches is an elegant brick edifice, built in the form of a circle, the inner diameter of which is 88 feet. The population of the city in 1790, was 16,359; in 1800, 20,473; and in 1810, 24,711; viz. 11,668 whites, and 13,143 blacks, of whom 11,671 were slaves. Unaffected hospitality, affability, and politeness, are characteristics of the respectable people of Charleston. The commerce of this city is extensive and increasing; the aggregate tonnage in 1805 was 42,547. The climate here is delightful, and the markets excellent and abundant. Lat. 32 44 30 N. lon. 80 39 45 W. 538 miles S. by W. from Washington.

GEORGETOWN is on a point of land between Sampit creek and Georgetown bay, and, owing to the fertility of the neighboring country, well situated for trade. It is about 13 miles from the sea; and vessels, drawing more than 12 feet water, cannot enter its harbor. The public buildings are a courthouse, gaol, and 3 churches for Episcopalians, Methodists, and Baptists. The number of dwelling houses is about 120, of families about 150, and the population in 1810 was about 2000, of whom between 6 and 700 were whites.

COLUMBIA is the seat of government, and of South-Carolina college. It stands on the east side of the Congaree, just below the confluence of Saluda and Broad rivers. It is laid out in a regular manner, contains about 100 houses, and is a very flourishing town.

The public buildings are 2 college edifices for the students, and 2 others for college officers, a statehouse, courthouse, meeting house, and gaol. It is 115 miles N. W. of Charleston. Lat. 34 1 N.

Beaufort is very pleasantly situated on Port Royal island, at the mouth of the Coosawatchie river. It contains an Episcopal, a Baptist, and an Independent church, and about 120 houses. Here is also a large and handsome college edifice. The harbor is one of the finest, most safe and capacious on the American coast. The town is remarkably healthy, and the state of society highly agreeable. Here is a well chosen public library of about 700 volumes, and schools containing together about 200 scholars. It is 70 miles southward of Charleston.

Camden is built on the E. side of the Wateree, 35 miles N. E. of Columbia. It was settled in 1750, and incorporated in 1791. It contains a Presbyterian, a Methodist, and Baptist church, a courthouse, and gaol, and about 150 houses. It is the largest inland town in Carolina, and has considerable advantages for trade, having an easy and quick communication with Charleston, through the Santee canal, and an extensive and thriving back country, in both the Carolinas.

Statesburgh, on the high hills of Santee, is a respectable and flourishing village of 10 or 12 dwelling houses, an Episcopal church, 4 or 5 stores, and a circulating library. Near it is a respectable academy, and 2 Baptist churches.

Pineville, in St. Stephen's district, has a flourishing academy, between 20 and 30 dwelling houses, 150 white inhabitants, and 300 negroes. The water here is pure, cold, and wholesome. Near this place is a valuable quarry of brown iron stone, the only one found in the low country of Carolina.

Roads. A turnpike has been completed between Charleston and Columbia. Little attention, however, has been paid to the roads in this state. In the low country they can be made only at a very great expence, as the materials must be brought from an immense distance. In the upper country the soil itself furnishes the materials. A good waggon road has been opened from the back settlements to Knoxville, in Tennessee.

From the head waters of the Catawba in the vicinity of Morgantown, a turnpike road or a canal might be formed to the head waters of both the Kanhawa and Tennessee; which three rivers head near each other. Either when accomplished, would facilitate an intercourse between Charleston and the states of Kentucky and Tennessee on easier and better terms, than it can be carried on between these western states and any other Atlantic port in the union.

Bridges. Bridges have been erected over the Congaree at Columbia, and the Savannah, at Augusta; but have been carried away by freshets.

Ashley river bridge was built in 1810 and 1811. It crosses Ashley river, one mile above the city of Charleston. It is 33 feet wide and 2100 long. It is lighted with lamps and has a draw 80 feet wide. The piles, which support the bridge, are covered with sheet lead, to protect them against the worms. At each end of the bridge

is a causeway, of 1500 feet, 3000 feet in the whole. By means of this bridge and a turnpike to Rentoul's ferry, the road to Savannah is shortened 5 miles.

Inland Navigation. A canal, 22 miles in length, connects Santee and Cooper rivers. The ascent, from the Santee to the highest intervening ground, is 35 feet, and is effected by 4 locks; the descent to the Cooper is 68 feet, and is effected by 9 locks. The locks are of brick and stone, and are 60 feet long, by 10 wide. The canal is 20 feet broad at the bottom, and 35 at the top; and has 4 feet depth of water, admitting boats of 20 tons. The expence was $650,667. The toll does not exceed $13,000. The Keowee, or Seneka river, at an expence of less than $700 has been rendered passable in boats, carrying 10,000 weight, more than 20 miles from its mouth. Many other projects for improving inland navigation in this state have been formed, but are not yet carried into effect.

Manufactures. Domestic manufactures, in the upper districts, are carried on to an extent which goes far to supply the wants of families, but none are made for exportation, articles of iron excepted. The numerous streams, and convenient falls, which abound in this part of the state, offer great advantages for carrying on various manufactories, where the impelling power of water is necessary. Hats have been made of the palmetto, which are strong and durable; those of the common kind are made in the western districts. Tanners and shoemakers are common. But the genius of the people leads them to agriculture. The first iron works in this state were erected in 1773, in the upper country. They were destroyed during the revolutionary war, and rebuilt in 1783.

Commerce. The exports from this state, in 1804, amounted to $7,451,616, and in 1810 to $5,290,614, of which $4,881,840 were of domestic produce, and $408,774 of foreign. In 1811, the whole amount of exports was $4,861,279. Cotton is the capital article, and exceeds in value all the others. Rice is now of the second consequence. At the commencement of the American revolution, the average quantity annually exported was about 142,000 barrels. The annual export since the introduction of cotton has been about 100,000 barrels. The other articles are lumber, pitch, tar, turpentine, beef, pork, indigo, and tobacco. Of this last article 9,646 hogsheads were exported in 1799. Charleston furnishes foreign merchandize to almost all South-Carolina, to a considerable part of North-Carolina, and to a part of Georgia. It is 100 miles nearer to Knoxville, in Tennessee, than any other large seaport, and will probably engross, ultimately, the trade of a considerable part of the country south of the Ohio. The foreign trade of South-Carolina is with Great Britain, Germany, to the Mediterranean, with France, Spain, United Netherlands, Madeira, and Russia. There never was but one vessel fitted out from Charleston for the East-Indies.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. CASCADES. HARBORS. MOUNTAINS, CATARACTS, AND SPRINGS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITIES. ISLANDS.

Climate. SOUTH-CAROLINA lies in the same parallel with Cyprus, Candia, Morocco, Barbary, Damascus, Tripoli, Palmyra, Babylon, and other parts of Turkey in Asia and with parts of Persia, India, and China. In comparing American climates with those of Europe, to bring them to a par with each other, a difference of 12 degrees should be allowed for peculiarities in the American continent. The most remarkable of these is such a predominance of cold as subjects an American, in N. lat. 35, to an equal degree of cold with an European residing in N. lat. 47. The climate of South Carolina is in a medium between that of tropical countries and of cold temperate latitudes. It resembles the former in the degree and duration of its summer heat, and the latter in its variableness. Since 1791 the difference between the coolest and warmest summers has ranged between 88 and 93, and the difference between the mildest and coldest winters has ranged on a few particular days from 50 to 17. The degree of heat in Charleston is considerably less than in the interior western country. In the summer of 1808, at Columbia, it was frequently at 96 and 97, and sometimes at 98; while at Charleston it did not exceed 91. April, May, and June are in common the healthiest months, with the exception of the cholera infantum and bowel diseases among children. August, and September are the most sickly; April and May the driest; June, July, and August the wettest; November the pleasantest. The old people are oftenest carried off in cold weather; the young, the intemperate, and the laboring part of the community, when it is hot. In some years January, and in others February, is the coldest month. It is remarkable that when orange trees have been destroyed by frost, it has always been in the month of February. It is also remarkable that oranges, though plentiful 40 or 50 years ago, are now raised with difficulty. Once in every 8 or 10 years a severe winter destroys the trees on which they grow. Of this kind were the winters of 1766, 1779, 1786, and 1796. The transitions from heat to cold have in the same period been great and rapid. November and December are the best months in the year for strangers to arrive in Carolina. Such should calculate so as not to make their first appearance either in summer or in the face of it, or in the first months of autumn. The hottest day of the year is sometimes as early as June, sometimes as late as September, but oftenest in July or August. The hottest hour of the day in Charleston varies with the weather; it is sometimes as early as ten in the forenoon, but most commonly between two and three in the afternoon. In winter the mountains near the western bounda-

ry of the state are often covered with snow. From thence to the sea shore snow but seldom falls so as to cover the ground, except on extraordinary occasions. The soil is seldom in like manner bound up with frost. This seldom extends into the ground more than two inches. In March and April the planting season begins and continues till June. In July and August the heats increase, and the heavy rains set in attended at times with severe thunder and lightning. September is the principal month of harvest. In it the evenings and mornings are chilly, but the sun is extremely oppressive in the middle of the day. Storms of rain are produced, accompanied sometimes with hurricanes. The leaves of deciduous trees begin to fall, and nature by degrees assumes the sober dress of winter. In October the weather is generally mild and clear. About the middle of this month frosts commence and generally terminate in the month of March. On their approach they bring with them a cure for the fevers, then usually prevalent. The inhabitants of Charleston keep fires in their houses from four to six months in the year; but there are some warm days in every one of them in which fires are disagreeable. On the other hand there are some moist cool days in every month in the year, with the exception of July and August, in which fires are not only healthy but pleasant. These, with the addition of June, are the only months which are exempt from frost in all years and in every part of South-Carolina. Sharp cold weather seldom commences before December, though there are several cold days in November, and the evenings, and mornings are generally so. In these two months, especially the last, vegetation is checked and continues so for about four weeks. In this manner the annual circle revolves in the varying climate of South-Carolina. The last half of December and the first half of January is the dullest period of the whole. If the year was to be regulated with a particular reference to Carolina, it might be said to commence about the middle of January, and to terminate about the middle of December; for the one begins and the other ends its visible natural vegetation.

The hygrometer in Charleston shows an almost constant humidity in the air. For the last seven years it has not marked in any one year more than 24 dry days; and the average of the whole 7 years is less than 16 dry days for each. The variation of the barometer is considerable. It generally stands between 30 and 31, but has been as low as 29 7 and as high as 31 8. The extremes of heat and cold since 1791 have been 76 degrees asunder. The average annual fall of rain for 7 years (1795—1801) was 57·14 inches. The quantity in 1799, the most abundant year, was 83·4 inches; that in 1800, the least abundant, was 38·6.

In the upper country the climate is much like that of New-England; except that it is less severe in winter, and rather warmer in summer. Since 1800 it has been less healthy than formerly. The progress of population and cultivation has introduced new diseases, common in older settlements. The old settlers in the upper country say that the spring season, is several weeks later than formerly.

Face of the Country. This state is sometimes divided, as

to its surface, into Lower and Upper country; and sometimes, into Lower, Middle, and Upper. The Upper country includes all the land above the falls of the rivers; the Middle includes a tract of 40 miles broad, lying below this; and the Lower is intended sometimes to comprize the middle and all the country below it; and sometimes only the country between it and the sea coast. According to the second division, the Low country reaches from the sea about 80 miles. This tract is an almost absolute level, and entirely destitute of stones. The surface is a very thin stratum of light black earth, resting on a bed of sand; which, in some places, is only a few feet thick, and lies on a substratum of marle or clay; and, in others, is 15 or 20, and rests upon a bed of small and broken sea shells. This country produces extensive forests of pitch pines, which are called *pine barrens*. The only underwood, in these, is the shrub oak; and a coarse wild grass covers the ground. Extensive swamps and marshes are also found in this tract; and great numbers of creeks, bays, and inlets put up from the coast. In this distance, by a gradual ascent from the sea coast, the land rises about 190 feet. Here if you proceed in a W. N. W. course from Charleston, commences a curiously uneven country. The traveller is constantly ascending or descending little sand hills, which nature seems to have disunited in a frolic. If a pretty high sea were suddenly arrested, and transformed into sand hills, in the very form the waves existed at the moment of the transformation, it would present the eye with just such a view as is here to be seen. Some little herbage, and a few small pines grow even on this soil. The inhabitants are few, and have but a scanty subsistence on corn and sweet potatoes, which grow here tolerably well. This curious country continues till you arrive at a place called *The Ridge*, 140 miles from Charleston. This ridge is a remarkable tract of high ground, as you approach it from the sea, but level as you advance north-west from its summit. It is a fine high, healthy belt of land, well watered, and of a good soil, and extends from the Savannah, to Broad river, in about 6 30 W. lon. from Philadelphia. Beyond this ridge, commences a country exactly resembling the northern states, or like Devonshire in England, or Languedoc in France. The hills and dales, with all their verdure and variegated beauty, present themselves to the eye. Wheat fields, which are rare in the low country, begin to grow common. Here Heaven has bestowed its blessings with a most bounteous hand. The air is much more temperate and healthful than nearer to the sea. The hills are covered with valuable woods—the vallies watered with beautiful rivers, and the fertility of the soil is equal to every vegetable production. This, by way of distinction is called the Upper country, where are different modes, and different articles of cultivation; where the manners of the people, and even their language, have a different tone. The land still rises by a gradual ascent; each succeeding hill overlooks that which immediately precedes it, till having advanced 220 miles in a north-west direction from Charleston, the elevation of the land above the sea coast is found by mensuration to be 800 feet. Here

commences a mountainous country, which continues rising to the western terminating point of this state.

The high hills of Santee in this belt, which are singular objects of curiosity, are an exception to this account. They are between 80 and 90 miles from the ocean, forming a ridge from 3 to 5 miles wide; they rise 300 feet above the adjacent level, affording from their summits a prospect 20 and 30 miles in extent. They are a mixture of sand, clay, and gravel; producing oak and hickory, and a profusion of underwood. These hills are among the most populous parts of the state.

In the western part of the upper country the hills swell into more towering heights, and gradually form the base of mountains, which divide this state from Tennessee, and the eastern waters from those of the Missisippi. See *Mountains*.

Soil and Agriculture. The banks of the large rivers, both in the middle and lower divisions, are bordered with a belt of excellent land, covered natively with a growth of the heaviest timber, and producing from 50 to 70 bushels of maize, and 12 cwt. of cotton in the seed, to the acre. The marshes and swamps in these districts, and the borders of the inlets, bays, and creeks, are the seat of the rice plantations, and are generally productive. Some of the low grounds between the sand hills in the middle district are suitable for agriculture and pasturage. The soil on the hills of Santee is well calculated for upland cotton, indigo, and every kind of grain but rice. These two districts, with these exceptions (and the exceptions bear but a small proportion to the whole extent) are, as has been already mentioned, a sandy, barren soil, not worth cultivation or fencing. The soil of the upper country is generally strong and productive. It is a dark, fertile mould, resting generally on a stratum of reddish brown, tenacious clay, and sometimes on a stratum of marle.

Cotton, the great staple of the state, is of three varieties. The *black seed* cotton is grown on the sea islands and in the low country. It produces a fine, white fleece, of a silky appearance, very strong, and of a long, good staple. *Green seed* or *upland* cotton is principally cultivated in the middle and upper country; also, in the lower country, on some tide lands, and salt water marshes, after they have been effectually reclaimed. Its fleece is white, and good, but of a shorter staple, and inferior to the other; and it adheres so closely to the seed, that, till the invention of the cotton gin by Mr. Whitney, it was not worth cleaning, and none of it was exported. Since that time, it has become the great article of cultivation and export. That one invention has been of incalculable benefit to the southern states. It has made the poor comfortable, and those in moderate circumstances rich; and the whole country has been improved beyond all example. The *nankeen* cotton is grown chiefly in the middle and upper country, for family use. The color of the fleece is that of nankeen cloth, which it retains as long as it is worn. But little of this kind of cotton is raised. The growth of rice is confined almost exclusively to the low country; small quantities, for home consumption, are, however, raised in the midland swamps.

The swamps on the bays, creeks, inlets, and rivers, which are overflowed by the tide, are the best rice lands; and the next to these are the inland swamps, with reserves of water. The best tide lands produce 2400 pounds of clean rice to the acre, and the tide plantations generally from 1200 to 1500 pounds. The inland plantations produce from 600 to 1500 pounds to the acre. The kinds of rice are the *white, gold Guinea, bearded, short grained*, and *highland* rice.*

Rice ground is prepared only by effectually securing it from the water. It is sowed in the tide lands about the 20th of March, and in the inland swamps about the second week in April. The land is previously turned up with the plough or hoe, and then is drilled, by the same instruments, into trenches. In these the rice is sown, from 1 to 2 bushels to the acre. The tide planters then flow the fields with water; keeping it on from 2 to 4 days. This kills the worms, and starts the grain, which appears 5 or 6 days after. It is commonly hoed 3 times, during its growth; and, in the second hoing, the grass is picked, by the hand, from the trenches, and the rice is then overflowed from 10 to 20 days. As the water is drawn off gradually the plants branch; and on the number of branches depends the size of the crop, each branch producing one ear of from 100 to 300 grains. Three months after sowing, it begins to joint, blossom, and form the ear. It is then overflown till harvest; which commences, near the sea, in the latter part of August, and in September, is general throughout the state. During this last overflow of the rice the negroes are sent into the pine lands to split staves and heading for barrels. After harvest the rice is threshed, winnowed, beaten in mills, sifted, and packed in barrels.

Tobacco and indigo were formerly much cultivated in this state; at present very little attention is paid to them. The crop of maize is large. It is cultivated in each of the three districts, but chiefly in the upper. The best lands, on the banks of the large rivers, yield from 50 to 70 bushels; the lands in the upper country, generally, from 30 to 50; those in the middle and lower from 10 to 30. The culture of grapes, figs, and of the olive have been partially introduced, and might be made productive. Hemp and flax are grown in the upper country, for domestic use. Wheat there yields 15 bushels; and in the best lands, from 20 to 25. Barley has been successfully cultivated, and some exported. It has yielded from 50 to 70 bushels an acre. Silk was formerly raised to some extent near Purysburgh, and is still continued at New-Bordeaux, near Abbeville. Considerable tracts of land are devoted to pasturage in the upper country; and some lands near Charleston are laid down for mowing. Waggons are the carriages for heavy transportation in the middle and upper country; and ox carts in the lower. The enclosures throughout the state are generally of split rails; and are, what in New-England are called *Virginia fence*. In the low and middle country, they are made of pine, in the upper, of chesnut and oak.

* Rice was introduced into Carolina, from Madagascar, by Gov. Thomas Smith (whose descendants are among the most respectable people in this state) about the year 1693.

The soil in the upper country is elevated and dry (except near the edges of the water courses) in the most rainy seasons. There is but little stagnant water in this region; the living springs are numerous, and their waters pure and excellent.*

Rivers. Every part of the state is intersected with rivers. Its side, which borders on the sea, is watered by the Waccamaw, Pedee, Black river, Santee, Wando, Cooper, Ashley, Stono, Edisto, Asheppo, Combahee, Coosaw, Broad, and Savannah rivers. Some of these have two mouths, others have several heads or branches. The Santee, in particular, is formed by a junction of Congaree and Wateree rivers. The same stream, which below is called Wateree, passes in the upper country by the name of the Catawba. Congaree is formed by a junction of Broad and Saluda rivers. Broad river unites in its stream three rivers, the Enoree, the Tyger, and the Pacolet, and afterwards becomes a component part of the Congaree; which last named river, uniting with the Wateree, takes the name of Santee.

Most of these rivers have a margin of swamp extending from half a mile to three miles. The short ones head in swamps, but the long ones in the mountains or other high grounds. They all run in a southeastern direction from their heads to the sea, which if extended, would cross the mountains and vallies in an acute angle to the south of east. Waccamaw river takes its rise in North-Carolina, and empties into Georgetown bay. Broad, Coosaw, Port Royal, and other short rivers, are properly arms of the sea. Their waters are deep, and their navigation safe. Broad and Port Royal rivers can safely and conveniently accommodate a large navy. They insulate a great part of Beaufort district, and by their windings and junctions form islands. These generally are suitable to the culture of cotton or indigo.

Wando river empties itself into Cooper about three miles above Charleston. It is navigable for about 20 miles, and then heads in swamps. Cooper river rises in Biggen and other swamps, and is about 1400 yards broad, where it empties itself into Charleston harbor. It is navigable by schooners and sloops to Watboo bridge, about 50 miles, and its eastern branch admits like vessels as far as Huger's bridge.

Ashley river originates in the Cypress and other contiguous swamps, and, uniting with Cooper river at White Point, forms Charleston harbor. Its navigation for vessels extends only a few miles, but for sloops and schooners as far as Bacon's bridge. Its width opposite to Charleston is about 2100 yards.

Stono river rises in swamps not far distant from the ocean, into which it empties itself between Kaywaw and Coffin land. Its navigation extends above Rantowle's and Wallace's bridge, but to no great distance.

Asheppo river springs from swamps in the low country, and empties itself into St. Helena sound. Its navigation extends nearly the whole of its short course.

Combahee river originates in Salt Catcher swamp. Its naviga-

* Ramsay.

tion for schooners and vessels, is about 30 miles. It empties itself into the Atlantic ocean through St. Helena sound.

Black river takes its rise in the middle country from the high hills of Santee. It winds between Santee river and Lynche's creek, and having formed a junction with the Pedee, their united waters are emptied into Georgetown bay. Its navigation for schooners and sloops extends many miles up its stream, and for flat bottomed boats, flats, and rafts, as far as its forks.

Edisto river is too shallow to admit boats of heavy burden to any considerable distance. In a full river the navigation of its northern branch is open as far as Orangeburgh, and its southern branch is also navigable some miles, until it is interrupted by islands and shoals. When that river is low, it is fordable at Parker's ferry, about 35 miles from the sea. This river takes its rise in the middle country from the ridge of highlands, which lies between the Congaree and Savannah rivers. These two last mentioned rivers, like all others which terminate in high lands, are subject to freshets.

Savannah river is bold and deep, and its navigation extends from the sea to Augusta for boats of 70 tons. At this place the falls of the river commence. Beyond it the navigation is continued for 60 miles to Vienna for boats of 30 tons or more.

The navigation of Santee river extends from the sea to the fork of the Congaree and Wateree rivers, thence up the Wateree to Camden on one side, and up the Congaree to Granby on the other, for boats of 70 tons. At these places the falls and rapids of the rivers commence; their upper branches are dispersed extensively over the country.* Sometimes they are obstructed by rocks, but in general their current is gentle and deep, In light boats and full rivers several hogsheads of tobacco have been brought down their streams with safety.

The Pedee also stretches from the sea towards the mountains, through the northern part of the state. Its free navigation extends from the sea to Greenville for boats of 70 tons, and from thence to Chatham for boats of lesser draught. Here the navigation is impeded by rocks and shallows, although in full rivers boats of light burden descend with the stream from North-Carolina.

These large rivers, by innumerable tributary streams, spread themselves throughout all the upper country. Some of their branches are wider than the rivers themselves. Keowee, though 200 yards wide for several miles above its confluence with the Tugoloo, is the narrowest of these two streams whose united waters take the name of Savannah river. Hence when the accumulated waters of rain

* Broad river, one of the branches of the Congaree, is the northern and eastern boundary of Union district. The Enoree river is its western and southern boundary. Besides these two rivers, the Pacolet runs through its northern portion, and forms a confluence with Broad river at Pinckneyville. Tyger river runs through its southern portion, and forms a confluence with Broad river at its southeastern extremity. Fairforest creek, which from its size seems entitled to the appellation of river, takes rise in Spartanburg, and after running 25 or 30 miles nearly through the centre of Union, discharges itself into the north side of Tyger river.

and snow pour down their channels, the adjacent low lands and intervals are overflowed with destructive freshets.

The natural advantages for mills and other labor saving machinery, are great in most of the upper districts, but especially in those at a moderate distance from the mountains. The springs which gush from their sides after running 60 or 70 miles, become streams from 1 to 300 yards wide. These have many shoals where they spread wider, and are so shallow as to be generally fordable. In the intermediate spaces, the water is on an average from 8 to 10 feet deep. At many of these shoals the falls are sufficient with the aid of a small dam to impel the most weighty machinery. At some of them the falls are so great and abrupt as to admit 20 feet wheels upon the overshot construction without any, or at most very short, races: at others the ledges of rocks extending across the river form a natural dam quite sufficient for the obstruction of as much water as is required for working 1 or 2 mills. The artist has little to do but to erect his house and machinery. These places generally afford a sufficiency of durable materials for erecting the necessary buildings. They also frequently afford the rock out of which the mill stones are cut. Smaller streams, called creeks, take their rise at the foot of the hills: these are from 10 to 15 miles in length, and generally contain such a quantity of water as with the advantages of the falls which they afford, is sufficient to give activity to labor saving machines of the largest size.

Many of the branches that take rise from the springs at the foot of the hills, after running 2 or 3 miles, afford beautiful sites for the erection of similar works upon a smaller scale. Some of these are now improved for the purpose of cleaning cotton with the saw-gin, and a few of them have also a pair of mill stones fitted up in the gin house, which, without manual labor, serve for grinding a sufficiency of grain for a distillery and for domestic consumption.

The common tides along the coasts of South-Carolina rise from 6 to 8 feet at neap tides, and from 8 to 10 feet at spring tides; they are however much influenced by wind; for a neap tide with a south-easterly wind is higher than a spring tide with a northeasterly one. Along the coast the depth of sea water is from 2 to 5 fathoms to a distance of some miles from the shore. In general the tides ascend the rivers, as far as 30 or 35 miles in a direct line from the ocean. This however is to be understood only in those rivers whose streams are not impetuous; for in the Santee the tides do not flow more than 15 miles in a direct line, and the salts are so kept back by the column of fresh water, continually flowing down, that except in times of great drought, they do not ascend further than 2 miles from the sea. When a drought prevails, they scarcely ever penetrate more than 3 or 4 miles in a direct line. The salts proceed further up Georgetown bay, and are sometimes injurious to agriculture 14 miles or more from the sea. The Savannah river partakes also of the same influences, and nearly in the same extent with Santee river.

Lakes. Few lakes are to be found in South-Carolina: one however, situated in Barnwell district, presents a beautiful sheet of water

near a mile in circumference. Large rivers of this state present us with several instances where their waters have broken through peninsulas and worn a short channel as wide and as deep as the circuitous one which they before pursued. When the mouths of these old channels are partly stopped up, and the streams in them become slow, they are denominated lakes. Of such is Lowder's lake on Pedee river, over which the surrounding lands project elevations of near 100 feet.

Cascades. So much of South-Carolina is level that cascades are very rare, especially in the low country. There cannot be recollected a single instance of an overshot mill within 100 miles of Charleston, though one might be advantageously worked at each end of the Santee canal. There are many such in the upper country, and a few beautiful natural water falls. One of these is the precipice across Reedy river at Greenville court house. The perpendicular fall is 36 feet, and exceeds the whole breadth of the stream.

From the Glassey, Table, and Oolenoy mountains, streams of water, 15 or 20 yards wide, tumble into the vallies below, and in the whole of their passage dash upon and foam over rocks.

Nothing in South-Carolina is equal to the Catawba falls. They are situated above Rocky mount. Hills confine the descending stream as it approaches to them. When it advances nearer it is further narrowed on both sides by high rocks piled up like walls. The Catawba river, from a width of 180 yards, is straitened into a channel about one third of that extent, and from this confinement is forced down into the narrowest part of the river called the Gulph. Thus pent upon all sides but one, it rushes over large masses of stone, and is precipitated down the falls. Its troubled waters are dashed from rock to rock, and foam from one shore to the other; nor do they abate of their impetuosity till after they have been precipitated over 20 falls of a depth very little short of 100 feet.

The scenery of these falls is sufficiently grand and interesting to attract the visits of the curious from a distance.

These falls greatly impede the water communication between the upper and lower country. To open it is the object of an incorporated company. See *Mountains.*

Harbors. The only harbors of note are those of Charleston, Port Royal, and Georgetown. The intended building of a light-house at the entrance of Georgetown (on North island) will improve the trade, and diminish much the risk of entering this improving town. The bar at the entrance of Winyaw bay, which leads to Georgetown, does not admit vessels drawing more than 12 feet water; and is in many respects a very dangerous place. This circumstance has proved injurious to the growth of Georgetown, which is otherwise exceedingly well situated for all the purposes of an extensive trade. Charleston harbor is spacious, convenient, and safe. It is formed by the junction of Ashley and Cooper rivers. Its entrance is guarded by fort Johnson. Twelve miles from the city is a bar, over which are four channels; one by the name of Ship channel, has 18 feet water; another 16½; the other two are for

smaller vessels. The tides rise from 5 to 8 feet. Port Royal has an excellent harbor, of sufficient extent to contain the largest fleet in the world.

Mountains, Cataracts, and Springs. "The western limits of Carolina so much resemble the apex of a triangle, the base of which is on the sea coast, that only 4 of the 25 districts into which it is divided can be called mountainous. These are the districts of Pendleton, Greenville, Spartanburg, and York. In that part of the state 7 or 8 mountains run in regular direction. Among them the Table mountain in Pendleton district is the most distinguished. Its height exceeds 3000 feet, and 30 farms may be distinguished at any one view from its top by the unaided eye. Its side is an abrupt precipice of solid rock 300 yards deep, and nearly perpendicular. The valley underneath appears to be as much below the level as the top of the mountain towers above it. This precipice is called the lover's leap. To those who are in the valley it looks like an immense wall stretching up to heaven. At its base lie whitening in the sun the bones of various animals, who had incautiously advanced too near its edge. Its summit is often surrounded with clouds. The gradual ascent of the country from the sea coast to this western extremity of the state, added to the height of this mountain, must place its top more than 4000 feet above the level of the Atlantic ocean: an eminence from which vessels crossing the bar of Charleston might be seen with the aid of such impoved glasses as are now in use. Large masses of snow tumble from the side of this mountain in the winter season, the fall of which has been heard 7 miles. Its summit is the resort of deer and bears. The woods produce mast in abundance. Wild pigeons resort to it in such flocks, as sometimes to break the limbs of the trees on which they alight.

The Oolenoy mountain is in the vicinity of the Table mountain. From it a cataract of water descends 6 or 700 feet. This forms the southern head branch of Saluda river.

The summit of the Oconee mountain, near the head waters of Keowee and Tugoloo rivers, is 5 or 600 yards above the adjacent country. From it there is a most beautiful prospect of Georgia and of the Cherokee mountains. The country between Ooconee and Table mountain is generally wild, but all the vallies are highly cultivated. Some of them produce 100 bushels of corn to the acre. From the numerous settlements in them, and the hoards of children who rush from every cottage to gaze on travellers, it is apparently the most populous part of the state. When the country which is overlooked from these mountains is cultivated and adorned with villages and other embellishments, it will afford such brilliant prospects as may give full employment to the pencils of American artists. In this part of Carolina Indians have resided for time immemorial. Here were situated their towns, Eseneka, Keowee, Eustaste, Foxaway, Kulsage, Oustinare, Socony, Estatoe, Warachy, Noewee, Conoruse, Tomasse, and Cheokee, besides many others whose names are now forgotten. In the midst of them near the eastern bank of the Keowee river stood fort George, in which a gar-

ison was long continued for the protection of that part of the state. But time has swept away both the one and the other. A pellucid stream which meanders among these mountains makes 2 falls of nearly 50 feet each ; then calmly flowing about 200 yards it is precipitated upwards of 80 feet. This last descent is extremely beautiful. The rock over which it tumbles is in the form of a flight of short steps. At its summit it is about 12 feet broad, but increases as it descends to 96. The protuberances, which resemble steps, break the current into a thousand streams. These pour in every direction, and cover their moss ground channels with foam. The original stream is small and turbulent. Although the weight of water is not great it is so dissipated as to produce a most beautiful effect. About 4 miles from general Picken's farm there is another cataract ; to approach which it is necessary for visitants occasionally to leap, crawl or climb. The mountains arise like walls on each side of the stream, which is choaked by the stones and trees that for centuries have been falling into it. The cataract is about 130 feet high, and some sheets of the stream fall without interruption from the top to the bottom. All the leaves around are in constant agitation from a perpetual current of air excited by this cataract, and causing a spray to be scattered like rain to a considerable distance. Another cataract may be observed descending from the side of a mountain about 6 miles distant. This is greater and more curious than the one just described.

Paris's mountain is situated in Greenville district; from it the Table mountain, the Glassey, the Hogback, the Tryon, and King's mountain are distinctly visible. Many farms are also to be seen from this beautiful eminence. The rocks on its southern side are adorned with the fragrant yellow honeysuckle. Reedy river is formed by the streams which flow from its surface. A spring impregnated with iron and sulphur issues from its side. This is said to cure ringworms and other diseases of the skin.

The Glassey and Hogback mountains are situated near the boundary line of Greenville and Spartanburg districts. Waters flow from them which form the sources of the Tyger and Pacolet rivers. These at their fountains are too cold to be freely drank in summer. On these mountains there are 4 or 5 snug level farms, with a rich soil and extensive apple and peach orchards. Cotton and sweet potatoes do not thrive thereon. The settlements are all situated on the south side, for the north is unfit for cultivation, on account of prodigious rocks, precipices, and bleak cold winds. Every part, even the crevices of the rocks, is covered with trees and shrubs of some kind or other. The chesnut trees are lofty, and furnish a quantity of excellent food for swine. In these mountains are several large caverns and hollow rocks, shaped like houses, in which droves of hogs shelter themselves in the great snow storms, which occur frequently in winter. The crops of fruit, particularly of apples and peaches, never fail. The climate in these mountains is less subject to sudden changes, than in the plains below. Vegetation is late, but when once fairly begun, is seldom destroyed by subsequent frosts. Neither are there any marks of trees being

struck with lightning, or blown up by storms. It is supposed that the mountains break the clouds, and that the lightning falls below; for there the effects of it are frequently visible. On the Hogback mountain there is a level farm of 30 or 40 acres of the richest high land in South-Carolina. This is covered with large lofty chesnut trees, with an undergrowth of luxuriant wild pea vines, very useful for fattening horses. These animals, while there, are free from flies. The ascent to this mountain is very steep for about two miles; but with the exception of 30 or 40 yards, expert horsemen may ride all the way to its summit. The prospect from it towards the N. and W. exhibits a continued succession of mountains, one ridge beyond another, as far as the eye can extend.

From a spring on one of the small mountains, between the Hogback and the Tryon, water is conveyed more than 1000 feet in a succession of wooden troughs, to the yard of a dwelling house built by Mr. Logan. It empties into a large reservoir from which, when filled, it runs over, and soon mingles with the adjacent N. Pacolet river, which is there a very small stream. Thus a great domestic convenience is enjoyed by a single mountaineer, which has not yet been obtained by the opulent city of Charleston.

On King's mountain in York district, the real limestone rock has been discovered. This has also lately been found in Spartanburg district. Before these discoveries the inhabitants had frequently to haul lime for domestic use upwards of 100 miles.

Beautiful springs of water issue in plentiful streams from these mountains. They also for the most part produce a profusion of grass, and are clothed to their summits with tall timber. The intermediate vallies are small, but of great fertillity. Hence the pastoral life is more common than the agricultural. The soil of the Table mountain is excellent; that of the others is stony and less fertile. But chesnut, locust, pine, oak, and hickory trees grow on them. The champagne country, which becomes more level as it approaches the sea, affords an interminable view, finely contrasted with the wild irregularities of these immense heights, which diversify the western extremity of Carolina."

Botany. The catalpa; iron wood; several varieties of elm, willow, and birch; the red bud tree; tulip tree; alder; chesnut leaved, black, smooth leaved, hairy leaved, downy black, and downy red oaks, and yellow berried holly, are found scattered over the state, though chiefly in the upper country. The dogwood, horse chesnut, red, white, and upland white oaks, sassafras, rose colored locust, and honey locust grow in high lands; and buttonwood, spicewood, winter plum, ash leaved, and red flowering maple, persimon, tupelo, water, and harp leaved oak, and various species of ash grow in the low mellow lands and swamps, in the several districts. The sorrel tree, black cherry, chesnut, black walnut, white walnut, and shagbark, white pine, fir, red mulberry, great black mountain chesnut, scarlet, and chinquapin oaks, and the sugar maple grow indiscriminately over the upper country; while the auriculated bay tree, cucumber tree, the prickly ash, and the aspen grow only on its highlands, and the linden, papaw, white locust, beech, and sycamore

in its swamps. The red bay, crab apple, laurel magnolia, shrub, Spanish, and upland willow, laurel leaved, and sandy red oaks, and pitch and yellow pines are found in the lower country; and the sweet and loblolly bays, loblolly pine, willow leaved oak, umbrella tree, and cypress, grow in its low lands and swamps.

Of shrubs the fringe tree, callicarpa, thorn apple, red, white, and evergreen-scarlet honeysuckle, dwarf palmetto, buckthorn, Canadian elder, wild laurel, several varieties of whortleberry, thorn, sumach, and sarsaparilla, the mock orange, sensitive briar, witch hazel, and poison oak, are found throughout the state; the flowering ptelea, yellow honeysuckle, Virginian itea, rosebay, glaucus hydrangea, Carolina alspice, mountain laurel, flowering and mountain stewartia, and hazel, only in the upper country; Syrian and smooth leaved storax, snowdrop tree, black sloe, May apple, several varieties of hibiscus, the casseva shrub, and purple nettle tree, in the low country. The smaller plants are too numerous to mention.

The following exotic plants and trees have been naturalized: rice, cotton, tobacco, indigo, cow pea, long and round potatoe, wheat, rye, barley, buck wheat, Guinea corn, hemp, flax, turnips, melons, gourd, pompion, squash, tannier, cucumber tomata, apple, quince, pear, plum, apricot, peach, nectarine, sweet and bitter almond, olive, oleander, fig, pomegranate, okra, sweet and sour orange, lemon, lime, popniac, Palma Christi, tallow tree, pride of India, Lombardy poplar, flowering aloe, sweet myrtle, Cape jasmine, and weeping willow.

Zoology. The quadrupeds of this state are the buffaloe, bear, panther, catamount, wildcat, wolf, beaver, red fox, red deer, otter, wild rat, mouse, black, red, grey, flying and ground squirrels, rabbit, polecat, mole, mink, opossum, racoon, lizard, toad, and frog. The birds are the bald eagle; fisher, pigeon, grey and mallow-tailed hawks; turkey buzzard; crow; large owl; cuckow; parroquet; blue jay; purple jackdaw; red winged black-bird; rice-bird; white, red and yellow-bellied, gold-winged, hairy and small spotted woodpeckers; great and small nutthatch; wild pigeon; turtle dove; may bird; robin; thrush; bullfinch; swamp and little sparrows; snow bird; mock bird; blue grosbeak; purple and painted finch; blue linnet; chatterer; blue bird; crested and black cap fly-catcher; summer red-bird; crested and yellow titmouse; pine and yellow throated creeper; humming bird; king fisher; kildeer; plover; hooping crane; blue and little white heron; crested bittern; common and black cormorant; white and brown curlew; oyster catcher; canda, small white brant, and great grey brant goose; duck and mallard; large black, bull-neck, round crested, summer, and little brown duck; blue and green, winged and white faced, teal; water pelican; wild turkey; pheasant; quail; wren; swallow; martin; whip-poor-will; snipe; woodcock; and marsh hen. The serpents are the common and small rattlesnake; water and black viper; copper-belly snake; bluish green snake; hognose snake; wampum snake; horn snake; black snake; little brown bead snake; ribbon snake;

chain snake; coachwhip snake; corn snake; green snake; and glass snake. The insects are the earth worm, grub worm, snail, housebug, flea, wood worm, forty legs, wood louse, grasshopper, mantis, cockroach, cricket, beetle, fire fly, glow worm, butterfly, moth, ant, figeater, humble bee, ground bee, wasp, hornet, fly, musquito, sand fly, spider, tick and potatoe louse. The fresh water fish are the sturgeon, pike, trout, bream, mud fish, perch, sucking fish, cat fish, gar fish and rock fish; together with these kinds of shell fish, the soft shelled turtle, terrebin and cray fish. The fish on the shores are the shark, porpus, drum, bass, cavalli, mapper, shad, sheepshead, whiting, poggy, black fish, mullet, herring, and skip-jack; and the oyster, crab, shrimp, and fiddler.

Mineralogy. *Iron* ore of an excellent quality abounds in the upper country, particularly in the districts of Pendleton, Greenville, Spartanburg and York. *Red* and *yellow ochres* are found in York district; *limestone* at Eutaw springs, near Orangeburgh, and on the banks of Thicketty creek, also on King's mountains in York district; *mill stones* at Beaver creek on the Catawba; *asbestos* and *slate* near the head waters of Lynch's creek; a quarry of *gray stone*, resembling freestone, at Beaver creek; *soap stones* in York district; *rock crystal*, *white flint*, *fuller's earth* and *emery*, occasionally in the middle and upper country; marle in the lower; lead ore of a rich quality, in the Cherokee mountains; copper ore in several places.

Mineral Waters. Pacolet springs, on the west bank of Pacolet river, are impregnated with sulphur and iron, and cure rheumatisms and cutaneous disorders. There is another with similar properties and virtues in the Catawba reservation; another on a branch of Waxaw creek; another on the east side of Paris's mountain; another in the forks of Lynch's creek; and another in Richland district near Rice creek. There are numerous springs, around Little-Salt-Catcher swamp, in Orangeburgh district, which cure sores and pains in the body. Eutaw spring, near Nelson's ferry, rises through an opening in the earth of a few inches diameter; and immediately forms a bason several feet deep, and 650 feet in circuit, The water has a purgative effect, but is feebly marked with mineral properties.

Natural Curiosities. On a hill on Flat creek, a western branch of the E. fork of Lynch's creek, there is a singular cavern, called the Rockhouse. It is about half way up the hill, and is composed of two immense flat rocks, which lean against each other, like the roof of a house, and shelter an area of about 90 feet in circuit. A cascade passes beneath them. In the neighborhood in a valley lies the Great Flat rock, which is a single rock covering 50 acres, on the west side 80 or 90 feet high and inaccessible, but on the east side easily ascended. On this side there are two caverns in the rock, one of which reaches in upwards of two hundred yards. Its walls are highly polished, and appear to be a dark brown marble. Probably it was once the passage of a stream of water.

Islands. The sea coast is bordered with a chain of fine sea islands, around which the sea flows, opening an excellent inland navigation, for the conveyance of produce to market.

North of Charleston harbor, lie Bull's, Dewee's, and Sullivan's islands, which form the north part of the harbor. James island lies on the other side of the harbor, opposite Charleston, containing about 50 families. Further southwest is John's island, larger than James; Stono river, which forms a convenient and safe harbor, divides these islands. Contiguous to John's island, and connected with it, by a bridge, is Wadmelaw; east of which are the small isles of Keyway and Simmon. Between these and Edisto island, is North Edisto inlet, which also affords a good harbor for vessels of easy draught of water. Edisto island is situated about 40 miles S. W. of Charleston. It is 12 miles long, and from 1 to 5 broad, containing about 29,000 acres. It was settled about the year 1700, by emigrants from Scotland and Wales. Till the year 1796, the principal produce from the culture of this island was indigo, with some rice, corn, potatoes, &c. Since this period, cotton has been substituted for indigo. In favorable years, more than 750,000 pounds of net cotton wool are raised; which, at 2*s.* sterl. per pound, amounts to upwards of $321,000. The cotton crops yield annually about 30,000 bushels of cotton seed, which makes excellent manure. In 1808, there were on this island 236 white inhabitants, and 2600 slaves. The inhabitants are Presbyterians and Episcopalians; the former are the most numerous, and have a church here, established soon after the settlement of the island, which has permanent funds, in bonds bearing interest, and rents, yielding an annual income of $3,276, for the support of the gospel.* South of Edisto island, is South Edisto inlet, through which enter, from the northward, all the vessels bound to Beaufort, Asheepoo, Combahee, and Coosaw.

On the southwest side of St. Helena island lies a cluster of islands, one of the largest of which is Port Royal. Adjacent to Port Royal lie St. Helena, Ladies island, Paris island, and the Hunting islands, 5 or 6 in number, bordering on the ocean, so called from the number of deer and other wild game found upon them. All these islands, and some others, of less note, belong to St. Helena parish.

Crossing Broad river, you come to Hilton Head, the most southern sea island in Carolina. West and southwest of Hilton Head, lie Pinckney's, Bull's, Dawsuskies, and some smaller islands, between which and Hilton Head, are Calibogie river and sound, which form the outlet of May and New rivers. Pinckney's island borders on Port Royal harbor on the N. and is about 9 miles in circumference. Lat. 32 12 N. This island is the property of Gen. CHARLES COTESWORTH PINCKNEY, and the place of his residence from November to June, and contains 2 large plantations, on which are cultivated cotton, potatoes, corn, oats, &c.

The soil on these islands is generally better adapted to the culture of indigo and cotton than the main, and less suited to rice. The natural growth is the live oak, which is so excellent for ship timber; and the palmetto or cabbage tree, the utility of which, in the construction of forts, was experienced during the late war.

* Rev. Mr. M'Leod, in Ramsay's History of South-Carolina.

GEORGIA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. ANTIQUITIES. RELIGION. GOVERNMENT. POPULATION. INDIANS. MILITIA. MANNERS AND CUSTOMS. LITERATURE. CHIEF TOWNS. ROADS. BRIDGES. INLAND NAVIGATION. MANUFACTURES. COMMERCE.

Extent. THIS state lies between lat. 30 42 and 35° N.; and between lon. 80 20 and 85 54 W. Its length is 270 miles. Its breadth, at Savannah, is 250; on the southern boundary, 170; and on the northern, 120. It contains about 62,000 square miles.

Boundaries. On the N. by the parallel of 35° which divides the state from Tennessee and North-Carolina; on the N. E. by Savannah river, which separates it from South-Carolina; on the E. by the Atlantic; on the S. by East-Florida; on the S. W. corner, for about 30 miles, by West-Florida; and on the W. by the Missisippi territory. The southern boundary is, as far as it goes, the same with that of the United States. The western is, more minutely, for a little distance the river Tennessee; then a straight line, commencing at the Indian town of Nickajack, on that river, and passing in a direction nearly S. E. by S. till it meets the Chatahouchie, at the mouth of a small river, in lat. 32 25 N.

Divisions. That part of the state, which is settled, is divided into 4 districts, and 38 counties.

Counties.	Free persons.	Slaves.	Towns.
	Eastern District.		
Wayne	422	554	
Camden	1,254	2,687	St. Mary's
Glynn	572	2,845	Brunswick
M'Intosh	782	2,954	Darien
Liberty	1,420	4,808	Sunbury
Bryan	563	2,264	Hardwick
Bulloch	1,879	426	
Effingham	1,576	1,010	Ebenezer
Chatham	3,792	9,748	Savannah
Total 9	12,260	27,296	
	Middle District.		
Columbia	5,262	5,980	
Warren	5,677	3,048	Warrenton
Jefferson	3,775	2,336	Louisville
Burke	6,167	4,691	Waynesborough
Scriven	2,661	1,816	Jacksonborough
Washington	6,427	3,513	Saundersville

Counties.	Free persons.	Slaves.	Towns.
Montgomery	2,207	747	
Tatnal	1,664	542	
Richmond	2,753	3,436	Augusta
Total 9	36,593	26,109	
	Western District.		
Hancock	6,874	6,456	Sparta
Oglethorpe	6,862	5,435	Lexington
Clarke	5,034	2,594	Athens
Jackson	8,753	1,816	Jefferson
Franklin	9,159	1,656	Carnsville
Elbert	7,582	4,574	Petersburg
Lincoln	2,343	2,212	Lincolnton
Wilkes	7,603	7,284	Washington
Walton	966	60	
Total 9	55,175	32,087	
	Southern District.		
Jones	6,010	2,587	Clinton
Randolph	5,752	1,821	Monticello
Morgan	5,951	2,418	Madison
Greene	6,443	5,236	Greenesborough
Putnam	6,809	3,220	Eatonton
Baldwin	3,809	2,550	Milledgeville
Wilkinson	1,836	318	
Laurens	1,725	485	
Telfair	526	218	
Pulaski	1,565	528	
Twiggs	2,763	642	
Total 11	43,189	20,023	

This state is entitled to 6 representatives to congress.

The eastern district comprehends the sea coast; the southern lies W. of it; the middle lies N. of the southern, and N. W. of the eastern; and the western N. W. of the middle.

Names. The French and Spaniards early gave the name of *Florida* to a large undefined tract of country, reaching northward from the gulf of Mexico. The English, at the same time, gave it the name of *Virginia*, and *South-Virginia*. The name of *Carolana* was given, in 1630, to all the country south of lat. 36°; and that of *Carolina* to the country between 36° and 31° N. in 1663. This state was included under each of these territories. Its present name was given to it, in 1732, in honor of George II.

History. The early history of this state may be seen under that of South-Carolina.

In 1732 the country between the Savannah and Alatamaha was granted by George II. to gen. Oglethorpe and others. He with 40 others landed at Yamacraw bluff, the site of the city Savannah, on the 1st of February, 1733. They immediately selected the present site of Savannah for the place of a town, and erected the first

house on the 9th. In 1736 two considerable colonies of Scotch and Germans were brought over by gen. Oglethorpe, who immediately erected several fortifications. The Spaniards in Florida, taking umbrage at this, invaded the colony, in 1742, but accomplished nothing. Ten years afterwards the trustees surrendered the province to the king, and it soon began to flourish. A general court was established in 1755.

In 1763 George III. annexed the country between the Alatamaha and St. Mary's to the province.

Georgia in 1775 acceded to the union of the colonies and sent deputies to the congress.

In February, 1777, the first state constitution was adopted, and the then existing parishes were formed into counties.

The country was invaded, in 1778, by a body of troops from Florida, who burned a few buildings, and carried off some property; and, soon afterwards, by a British army under col. Campbell, who took Savannah, Dec. 29. Count D'Estaing made an unsuccessful attempt to retake it in October, 1779. The town and state were evacuated by the enemy in July, 1782.

The second constitution was adopted in May, 1785, and amended in May, 1789.

In 1795 the legislature sold, to several companies, about 22,000,000 acres of the western territory for $500,000, which was paid into the treasury. The original purchasers soon after sold it, at an advanced price, to various gentlemen, chiefly in the middle and eastern states. The next year, the succeeding legislature declared the sale unconstitutional, and ordered the records of it to be burnt; but kept the money. This is one of the most disgraceful acts, which perhaps was ever perpetrated by a free government.

In May, 1798, the present constitution was adopted.

In 1802, by a treaty held at fort Wilkinson, on the Oconee, the Creeks ceded to the United States (which has been since ceded to Georgia) a large tract of country, embracing the S. W. corner of Georgia.

Antiquities. On the west bank of the Alatamaha, ten or twelve miles above its mouth, and nearly opposite Darien, are to be seen the remains of an ancient fort, or fortification; it is now a regular tetragon terrace, about four feet high, with bastions at each angle; the area may contain about an acre of ground, but the fosse which surrounded it is nearly filled up. There are large live oaks, pines, and other trees, growing upon it, and in the old fields adjoining. It is supposed to have been the work of the French or Spaniards. A large swamp lies betwixt it and the river, and a considerable creek runs close by the works, and enters the river through the swamps, a small distance above Broughton island.

About 70 or 80 miles above the confluence of the Oakmulge and Oconee, the trading path from Augusta to the Creek nation crosses these fine rivers, which are there forty miles apart. On the east banks of the Oakmulge, this trading road runs nearly two miles through ancient Indian fields, which are called the Oakmulge fields; they are the rich low lands of the river. On the heights of these

low grounds are yet visible monuments or traces of an ancient town, such as artificial mounds or terraces, squares, and banks encircling considerable areas. Their old fields and planting land extend up and down the river, fifteen or twenty miles from this site. And, if we are to give credit to the account the Creeks give of themselves, this place is remarkable for being the first town or settlement, in which they set down, (as they term it) or established themselves, after their emigration from the west, beyond the Missisippi, their original native country.

On the banks of Little river, in the upper part of the state, are several curious and stupendous monuments of the power and industry of the ancient inhabitants of this country. Here are also traces of a large Indian town.

Religion. The inhabitants of this state, who profess the Christian religion, are of the Presbyterian, Episcopalian, Baptist, and Methodist denominations. The two latter are much the most numerous. They have but few regular ministers among them.

The inhabitants of Georgia, and of the other southern states, will never enjoy the advantage of a numerous and enlightened clergy, or the numberless social and political blessings, which religion draws after her, till adequate legal provision is made for their support.

Government. The legislature is styled *the general assembly*, and consists of a senate and house of representatives. The senate are chosen annually by counties, one from each. A senator must be 25 years of age, possessed of a real estate of $500, or pay taxes for $1000 within the county, and have been a citizen of the United States 9 years, and of this 3, and have resided within the county the year preceding. The representatives are chosen annually by counties; each sending at least one, and none more than four. A representative must be 21 years of age; possessed of a freehold worth $250, or of $500 taxable property, within the county, and have been a citizen of the United States 7 years, and of this 3, and have resided the preceding year in the county. The assembly meets annually, on the second Tuesday in January.

The governor is chosen for two years, by the general assembly. He must have been a citizen of the United States 12 years, and of this state 6 years; must be 30 years of age; and possessed of 500 acres of land and other property to the amount of $4000. In case of his absence, resignation or death, the president of the senate is governor *pro tempore*. All persons, 21 years of age, who have paid taxes one year, and resided in the county the 6 months previous to the election, are voters.

The judicial power is vested in a superior court, composed of 4 judges, one in each district, who are appointed for 3 years, and hold, each, a court in one of the districts twice a year; in an inferior court in each county, sitting twice a year, and consisting of 5 judges who are also judges of the courts of ordinary or probate; and in justices courts, sitting once a month, and consisting of a single justice of the peace; who summons 7 jurors, tries all cases not exceeding 30 dollars, and holds jurisdiction in criminal cases

over slaves. Other criminal cases are tried only by the superior court. Two justices of the peace are appointed for each captain's district.

Population. The population of Georgia was in the year

1749		6,000			
1790	52,886 whites	82,548	1800	101,068 whites	162,686
	29,264 slaves			59,699 slaves	
	398 free bl.			1,919 free bl.	
			1810	145,414 whites	252,433
				107,019 slaves	
				1,801 free bl.	

The items of the census of 1810 were as follow:

	white males.	white females.	total.
Under 16 years of age	39,953	37,520	77,473
Between 16 and 45	28,407	25,811	54.218
45 and upwards	7,485	6,238	13.723
Total	75,845	69,569	145,414

The increase in the number of whites during the last 10 years was 46,147, or 45$\frac{3}{5}$ per cent.; that of the blacks was 45,401, or 73$\frac{3}{5}$ per cent. The whites were greatly increased by immigration. The importation of slaves, during the whole of this period, was forbidden.

Indians. The *Creeks* or *Muskogees* inhabit the western half of Georgia, and the eastern parts of the Missisippi territory; and are the most numerous tribe in the union. They are composed of various hordes, who, after a series of bloody wars, united against the Chactaws. The names of these various tribes were Apalachees, Alibamas, Abecas, Cawittaws, Conshacks, Coosas, Coosactees, Chacsihoomas, Natchez, Oakmulgees, Oconees, Okohoys, Pakanas, Taensas, Talepoosas, Weektumkas, and some others. Their union rendered them victorious over the Chactaws, and formidable to all the other tribes. Their whole number some years since amounted to 17,280; of whom 5,860 were fighting men. They are a well made, hardy, sagacious and politic people; extremely jealous of their rights; and averse to parting with their lands.

In 1796, col. Hawkins was appointed superintendant of Indian affairs S. of the Ohio. Great praise is due to this gentleman for his judicious, benevolent, and persevering exertions to meliorate the condition of these Indians. He has spent most of his time since the period above mentioned, in drawing them off from a savage state, and in introducing among them the various arts of civilized life. They now cultivate tobacco, rice, maize, potatoes, beans, peas, and cabbages; and raise plenty of peaches, plums, grapes, strawberries, and melons. They have abundance of tame cattle, hogs, turkies, ducks, and other poultry. The loom, the wheel, the anvil, and many other mechanical implements are usefully established among them; and their children are now regularly taught reading, writing, and arithmetic. The speculations made upon their lands by some of their neighbors of a not much lighter complexion have given them unfortunate impressions respecting their honesty and good faith. This has rendered them desirous of a trea-

ty with the general government, by which states as well as individuals should be prevented from getting their lands by purchase or otherwise.

The country which they formerly claimed extended from Florida to the 34th degree of latitude; and from the Tombigbee to the Atlantic ocean; they have ceded a part of this tract on the seacoast, by different treaties, to the state of Georgia. Their principal towns lie in lat. 32° and lon. 11 20 from Philadelphia. They are settled in a hilly but not mountainous country. The soil is fruitful in a high degree, and well watered, abounding in creeks and rivulets, from whence they are called the *Creek Indians*.*

Militia. There are about 25,000 men on the militia rolls in this state, in general badly armed and disciplined.

Manners and Customs. No general character will apply to the inhabitants at large. Collected from different parts of the world, as interest, necessity, or inclination led them, their character and manners must of course partake of all the varieties which distinguish the several states and kingdoms from whence they came. There is so little uniformity, that it is difficult to trace any governing principles among them. An aversion to labor is too predominant, owing in part to the relaxing heat of the climate, and partly to the want of necessity to excite industry. An open and friendly hospitality, particularly to strangers, is an ornamental characteristic of a great part of this people.

Their diversions are various. With some, dancing is a favourite amusement. Others take a fancied pleasure at the gaming table, which, however, frequently terminates in the ruin of their happiness, fortunes, and constitutions. In the upper counties, horseracing and cockfighting prevail, two cruel diversions, imported from Virginia and the Carolinas, from whence those who practise them principally migrated. But the most rational and universal amusement is hunting; and for this Georgia is particularly well calculated, as the woods abound with plenty of deer, racoons, rabbits, wild turkies, and other game; at the same time, the woods are so thin and free from obstructions, that one may generally ride half speed in chase without danger. In this amusement, pleasure and profit are blended. The exercise, more than any other, contributes to health, fits for activity in business and expertness in war; the game also affords them a palatable food, and the skin a profitable article of commerce.

The evils of slavery are felt here, and by many lamented, as is the case in all the low country south of the Delaware state.

* The late General M'Gillivray, the celebrated chief of the Creeks, was a half blooded Indian, his mother being a woman of high rank in the Creek nation. He was so highly esteemed among them, that they, in a formal manner, elected him their sovereign, and vested him with considerable powers. He had several sisters married to leading men among the Creeks. This gentleman would gladly have remained a citizen of the United States; but having served under the British during the late war, his property in Georgia, which was considerable, was confiscated. This circumstance induced him to retire among his friends, the Creeks, and he remained, till his death, an active and zealous partizan in their interests and politics.

A considerable number of gentlemen, of respectable characters, have lately exerted themselves in behalf of the unfortunate blacks, and a degree of infamy is now attached to the character of the man who is guilty of cruelty towards them.

Literature. The Legislature, in 1785, incorporated what is called the *University of Georgia.* It consists of a college; and of an academy, established, or to be established, in each county. This body of institutions is under the direction of a corporation called the *Senate of the University*, and composed of the president of the university, the governor, senate, speaker of the house of representatives, chief justice, and a number of gentlemen, who by themselves constitute a board of trustees for the college, and are permanent members, of the senate of the university. The college is established at Athens, in Clarke county. The president of the university is its president. It has also several professors; but hitherto has not flourished equal to the public expectation.

The senate of the university appoints a board of commissioners, in each county, to superintend the academy of the county and the inferior schools. This board receives its instructions from the senate, and is accountable to it. The rector of each academy is an officer of the university; and is appointed by the president, with the advice of the trustees, and commissioned under the public seal.

The funds, for the support of these institutions, consist of about 50,000 acres of land of an excellent quality, and about 6000*l.* sterling in bonds, and in houses and town lots in Augusta. Public property, also, to the amount of 1000*l* has been set apart, in each county, for building and furnishing an academy.

Chief Towns. SAVANNAH is built on a sandy bluff, 40 feet above low water mark, and 18 miles from the bar at the mouth of the river. The river runs N. of this bluff close to the town; on the S. lies a level sandy pine barren, two miles across; on the E. and W. are extensive fresh marshes, which are flowed every tide, and are excellent rice plantations. These render it very unhealthy. The town is laid out in the form of a parallelogram; and contains 10 public squares of one acre, at equal distances from each other, inclosed and planted with trees, and having pumps in the centre. Two rows of trees are, also, set out in most of the streets; and avenues of trees extend, on the N. and S. sides of the city, the whole length of it. The public buildings are a Presbyterian, Episcopalian, Methodist, Baptist, Lutheran, and Catholic church, and a synagogue; a court-house, in a ruinous condition; a prison, on the S. common, 3 stories high, with 6 rooms on a floor, and passages of 20 feet wide; an exchange, on the centre of the bluff, 5 stories high with a steeple and clock, a heavy gothic building; a poorhouse and marine hospital, at the W. end of the town; an academy, on the S. side, 180 feet by 60, and 3 stories high; and barracks, on the E. side, 270 feet long with 32 rooms, calculated for the accommodation of 300 troops. There is a strong well built battery on the S. side of the river, at five fathom hole, 3 miles below the town, calculated for 12 guns. Several useful societies have been lately established in this city, which do credit to the

benevolence and liberality of the citizens. The population of the city in 1787 was about 2300; in 1800, 5146; and in 1810, 2490 whites, 2195 slaves, and 530 free blacks: in all 5215. There are 1200 dwelling houses, and about 1800 buildings of other descriptions. A branch of the United States bank was established here.

AUGUSTA was laid out, in 1735, by general Oglethorpe, and from that period has been a place of considerable trade. It is built on a fine plain, on the S. W. side of the Savannah river, where it is 500 yards wide, and deep enough for boats of 50 tons. The streets are wide, and cross each other at right angles. The public buildings are 3 churches, an academy, courthouse, gaol, and market. There are 300 dwelling houses, and 2476 inhabitants. The bank here has a capital of $300,000. Large quantities of cotton, and some tobacco, are purchased here, and boated to Savannah. It is 127 miles by land N. W. from that town, in lat. 33 19 N. lon. 80 46 W.

SUNBURY is a small seaport, about 40 miles S. from Savannah, and has an academy and a safe and convenient harbor. It is a pleasant healthy town with few inhabitants.

MILLEDGEVILLE, the seat of government, is in Baldwin county, on the S. W. bank of the Oconee, 160 miles W. N. W. from Savannah, and 80 W. from Augusta. The river is navigable to this place for boats of 30 tons. Quantities of cotton, corn, and some tobacco are exported by boats from this place to Darien and Savannah. The statehouse, on a high eminence, is an elegant building. A shoal opposite this town, is famous for the quantity and quality of the shad caught on it. Population 1246.

ATHENS, on the S. W. side of the N. branch of the Oconee, in Clarke county, is 200 miles W. N. W. of Savannah, and has 248 inhabitants. It is the seat of the university.

FREDERICA, on the island of St. Simon's, lat. 31 15 N. was built by gen. Oglethorpe, in 1734. The fortress was regular and handsome, composed of tabby,* and is now in ruins. The town contains but few houses, which are also built of tabby. It is fronted by a large navigable river, which enters the ocean at the south end of the island. It communicates with the Alatamaha, and forms part of the inland navigation. This river seems formed for ship building. A safe harbor, deep channel, fine bluffs, surrounded with live oak and every other description of timber, and is withal said to be a healthy place.

LOUISVILLE, formerly the seat of government, in Jefferson county, near the Ogechee river, contains about 50 dwelling houses. The statehouse is a large brick building, now used as a county courthouse, and arsenal for the state. It is 108 miles N. W. of Savannah, and 52 from Augusta. It contains 524 inhabitants, including slaves.

ST. MARY'S is in Camden county at the S. W extremity of the state, and of the United States, on the N. bank of St. Mary's river, which separates it from Florida. It has a good harbor, and vessels drawing 17 feet water can be brought to the wharf. It was sopurg-

* A mixture of oyster shells and lime.

ed with yellow fever in 1808, though its inhabitants in general are healthy. The situation is low and the high spring tides overflow a considerable portion of the town. It contains 585 inhabitants, and is 130 miles S. S. W. of Savannah. Lat. 30 44 N.

DARIEN is on the N. branch of the Alatamaha river, on the N. bank, in M'Intosh county, 12 miles from the bar. A fort was built at this place, by gen. Oglethorpe, in 1736, and the town was settled by Scots Highlanders. A canal was cut through an island for the passage of boats, to facilitate the communication with Frederica. The town stands on a high sandy bluff, and promises, from the rapid increase of the back country, to be a place of considerable importance. It is 60 miles S. W. of Savannah, and contains 206 inhabitants.

PETERSBURG is on the eastern extremity of Elbert county, at the junction of Broad and Savannah rivers, and is a place of considerable trade, and the improvement of the navigation from thence to Augusta will increase its importance. It contains 332 inhabitants.

Roads. Little attention has been paid to the roads in this state. There are no turnpikes, though in some parts of the state they might be constructed to advantage, particularly the causeway on Ogechee river on the great road from Savannah to Sunbury and St. Mary's.

A road from fort Hawkins to fort Stoddart, through the Indian territory, was completed in the autumn of 1811.

Bridges. There is a good bridge across the Ogechee, at the causeway mentioned in the above article, which yields a handsome income to its proprietor. There are a few others in different parts of the state; but there is yet room for great improvements.

Inland Navigation. The coast of Georgia, as is that of all the southern states, is lined with islands, between which and the main land, boats, and in many parts vessels of considerable burden, may pass in safety, without going out to sea. The rivers, which intersect this state in all directions, render it convenient for the inhabitants in all parts to convey their produce to market.

Manufactures. The following articles were manufactured in 1810. The nominal value of each is annexed.

Cotton cloth,	yds. 3,591,612	$1,745,806·00
Cotton and wool	441,205	275,761·25
Woollen	5,591	4,192·25
Cotton and flax	10,722	8,051·50
Linen	1,790	1,790·00
Cotton bagging	9,463	5,593·37½
Total, yards of cloth	4,060,383	$2,041,194·37½
Rum, peach brandy, gin, and whiskey	galls. 545,122	408,841·50
Tanned hides	17,521	70,084·00
Beer	barrels 1,878	11,268·00
		$2,533,387·87½

Beside nails, bar iron, gunpowder, soap, and candles. The in-

habitants, in the interior, are in the habit of manufacturing their clothing and bedding for common use. This practice is gaining ground near the coast.

Commerce. The exports from the state, in 1810, amounted to $2,424,631·17. The following were the important articles.

Upland cotton	lbs. 9,282,711	$1,407,406·65
Sea island do.	2,523,331	756,999·30
Stained do.	83,605	12,540·75
Total	11,889,647	$2,176,946·70
Rice	tierces 10,588	190,504·00
Lumber		23,559.56
Tobacco	hhds. 283	10,980·00
Canes	(1000) 608⅓	3,649·20
Deer skins	lbs. 12,120	3,030·00
Maize	bushels 2,730	2,047·50
Hogs	300	1,800·00
Flour	barrels 190	1,520·00
Tar	barrels 564	1,128·00
Beef	barrels 106	1,060·00
Indigo	lbs. 788	788·00

In 1811 the exports amounted to $2,568,866.

Georgia, like North-Carolina and Virginia, owns comparatively but few tons of shipping. Most of her foreign merchandize is procured from New-York, Philadelphia, Baltimore, and Charleston, particularly from the first and last of these cities. Cheese, fish, potatoes, apples, cider, and shoes are procured chiefly from New-England. Savannah is the only seaport of consequence.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. SWAMPS. BAYS. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL SPRINGS. NATURAL CURIOSITIES. ISLANDS.

Climate. TILL within 8 or 10 years, the months of July. August and September, in the flat country, were denominated the *sickly season.* The summers, since that time, have been cooler; and the epidemic fevers have raged chiefly in the autumnal months, which are now justly entitled to the distinction of the sickly months. These fevers have many of the symptoms of the yellow fever; and those who recover from them, look as if their skins had been dyed by a strong decoction of saffron. They are more fatal than the fevers of South-Carolina, and much fewer of the inhabitants are exempted from their attacks. Strangers who spend the sickly season in the flat country, frequently fall victims to them.

The disorders of the climate originate partly from the badness of the water, which, in the low country, is generally brackish; and

partly from the noxious vapors, which are exhaled from the stagnant waters, and putrid matter in the rice swamps. The long continuance of warm weather also produces a general relaxation of the nervous system; and, as a great proportion of the inhabitants have no necessary labor to call them to exercise, indolence is the natural consequence; and indolence, especially amongst a luxurious people, is ever the parent of disease. The immense quantities of spiritous liquors, which are used to correct the brackishness of the water, form a species of intemperance, which too often proves ruinous to the constitution. Parents of infirm, sickly habits, often, in more cases than one, have children of their own likeness. A considerable part of the diseases of the present inhabitants may therefore be considered as hereditary.

Before the sickly season commences, many of the rich planters of this state remove with their families to the sea islands, or some elevated healthy situation, where they reside three or four months, for the benefit of the fresh air. In the winter and spring, pleurisies, peripneumonies, and other inflammatory disorders, occasioned by sudden and violent colds, are considerably common, and frequently fatal. Consumptions, epilepsies, cancers, palsies, and apoplexies, are not so common among the inhabitants of the southern as northern climates.

The winters in Georgia are very mild and pleasant. Snow is seldom or never seen. Vegetation is not frequently prevented by severe frosts. Cattle subsist tolerably well through the winter, without any other food than what they obtain in the woods and savannas, and are fatter in that season than in any other. In the hilly country, which begins about 50, and in some places 100, miles from the sea, the air is pure and salubrious, and the water plenty and good. From June to September, the mercury in Farenheit's thermometer commonly fluctuates from 76° to 90°. In winter, from 40° to 60°. The most prevailing winds are southwest and east; in winter northwest. The east wind is warmest in winter and coolest in summer. The south wind, in summer and fall particularly, is damp, sultry, unelastic, and of course unhealthy.

In the southeast parts of this state, which lie within a few degrees of the torrid zone, the atmosphere is kept in motion by impressions from the trade winds. This serves to purify the air, and render it fit for respiration; so that it is found to have a very advantageous effect on persons of consumptive habits.

Face of the Country. From the ocean, for the distance of 7 miles, there is a margin of islands and marshes, intersected by rivers, creeks, and inlets, communicating with each other, and forming a complete inland navigation, for vessels of 100 tons, along the whole coast. The sea islands consist of a species of land called *hammuck*, which produces the black-seed cotton, and of salt marsh. A narrow margin, on the coast of the main, consists also of *hammuck* lands and salt marshes. Immediately back of this commence the pine barrens, interspersed with numerous inland swamps. The rivers and creeks have, also, near their mouths, marshy lands, called *brackish swamps*, and higher up, *river-tide* swamps, which are en-

tirely fresh. Both of these, and the salt marshes, are overflowed partially or wholly at the return of the tide. The pine barrens reach from 60 to 90 miles from the coast. Within that distance, however, the pines become of a more vigorous growth, and the level is occasionally broken ; but the hills are mere sand hills. Beyond this commences a country resembling the middle country of South-Carolina ; except that large bodies of oak and hickory lands are interspersed among the lands covered with pine. The hills are higher, and more steep and sudden. Sand, however, is the common covering of this country also ; which, when examined by the microscope, is found to have every appearance of sea sand ; the angles and asperities being wholly worn off by friction. This tract of country, is from 30 to 40 miles wide, and terminates at the lower falls of the rivers, as at Augusta on the Savannah. A new feature, also is presented in this region. A large bank of oyster shells and other marine substances is found on the Savannah, 15 miles below Augusta, the direction of which is nearly parallel with the coast. A similar bank is found near Louisville on the Ogeechee, and at Long Bluff on the Oconee. It is supposed that these are merely parts of one continuous bank ; and that it stretches the whole length of the state, in a N. E. and S. W. direction. It is also believed by many, that the country below this bank has been gradually gained from the ocean, and that the original line of the coast may now be traced in this bank of oyster shells. In the gulf stream there are generally no soundings, and it is every where much deeper than the surrounding waters. It may not be improper to suggest whether this river of the ocean, as it scooped out its broad unfathomable channel, has not thrown up the unnecessary sands on the American coast, and thus formed the low country of the south, and of New-Jersey, the barrens of Long island, the sand hills of Cape Cod, and the banks of Newfoundland.

At the termination of this tract commences a more desirable region. Here the long leaved pines disappear, and the short leaved commence ; but the oak and the hickory are the common growth. Farther back at Washington and Greensborough, the fertile lands are again broken by black-jack, chesnut, and pine ridges, which become more frequent and extensive near the mountains. The only tract, that can be called mountainous, is close to the northern line of the state, near Tennessee. It will be observed that nothing is here said of the country S. W. of the Oakmulge and Alatamaha, except near the sea. Almost the whole of this is occupied by Indians, and has not been thoroughly explored.

Soil and Agriculture. The lands in the upper country are of four sorts. The best are the *low grounds*. These lie on rivers and creeks ; and have a soil, that is a mixture of rich black mould with a small quantity of fine sand. They produce abundantly maize, potatoes, pompions, melons, peas, beans, hemp, flax, tobacco, cotton and all kinds of vegetables. In some instances 100 bushels of maize have been raised to the acre. The natural growth of this land is walnut, oak, hickory, poplar, and ash ; and the underwood is the cane and wild pea-vine, which disappear soon after the

country is settled. Land of the second quality, called *mulatto-land*, has a fine dust of a reddish, yellow colour, approaching to a clay. The natural growth is oak, hickory, dogwood and poplar. It bears wheat, rye, oats, barley and all the productions just recited abundantly; but its crops suffer seriously from a drought, and from much rain. Crab-grass grows on it in great abundance, and is frequently cut and cured for hay. *Grey-land* is of the third quality. The soil is a mixture of grey mould, with a small portion of coarse sand, on a foundation of clay. Its productions are the same with those of the mulatto lands, but less plenteous. It is not however so liable to be affected by the extremes of wet and dry weather. The natural growth is oak, hickory and short-leaved pine, with underwood of the same species. The fourth quality, called *barrens*, is poor and chiefly unproductive. It yields however great quantities of coarse grass in summer, affording abundant pasturage for cattle and sheep. The soil is a mixture of sand, grey earth, clay and pebbles; interspersed with quarries of stone and rocks. The natural growth is the black-jack, chesnut, chinquapin and short-leaved pine. These four descriptions af land are found in the western district, and in the upper half of the middle and southern, composing about half of the settled parts of the state. The other half of the state, including the eastern district, and the low country of the middle and southern, consists almost wholly of pine barrens. The country, here, is a plain of sand, and the natural growth is the long-leaved pine, with a thick covering of poor coarse grass; on which, large droves of cattle are turned out, in the winter, to browze for subsistence. The inland swamps, which are here frequent, are generally beds of sand covered with a thin black soil; the natural growth of which is ash, black gum, oak, cypress and bay, with almost impenetrable shrubbery, some canes and a little grass. Ponds in this region are also numerous, and sometimes cover 50 acres. They are thickly grown over with cypress trees, and margined with high sedgegrass. The *low lands* on the rivers in the lower parts of the middle and southern districts, are less productive than those higher up; the black mould having a greater proportion of sand intermixed with it. Some tracts of *mulatto* and *grey lands* are found in this last mentioned region. The *low lands* and *river-tide* swamps, near the shore, have great quantities of very large timber, of almost all the kinds already named; together with the live-oak, cabbage-palmetto, and magnolia. Most of these lands are devoted to rice, but black-seed cotton and hemp grow equally well, and are beginning to be extensively cultivated on them. The extensive *salt marshes*, on the sea islands and on the main, have not as yet been improved; but it is conjectured that the *barilla cotton* would succeed, especially where samphire is a spontaneous growth. The best staple of the black-seed cotton has succeeded well on the *brackish swamps* on the Savannah and Alatamaha.

The table of exports exhibits, at once, the state of the agriculture, as to the proportional cultivation of each article.

On the dry plains, grow large crops of sweet potatoes, which are found to afford a wholesome nourishment, and from which is made,

by distillation, a kind of whisky, tolerably good, but inferior to that made of rye. It is by properly macerating and washing this root that a sediment or starch is made, which has obtained the name of sago, and answers all the purposes of the India sago.

Indigo was formerly cultivated in this state to a considerable extent, but has given place to cotton. The manner in which the indigo was cultivated and manufactured follows: the ground, which must be a strong rich soil, was thrown into beds of 7 or 8 feet wide, after having been made very mellow, and was then raked till it was fully pulverized. The seed was then sown in April, in rows at such a distance as conveniently to admit of hoing between them. In July the first crop was fit to cut, being commonly two and a half feet high. It was then thrown into vats, constructed for the purpose, and steeped about 30 hours; after which the liquor was drawn off into other vats, where it was *beat*, as they call it, by which means it was thrown into much such a state of agitation as cream is by churning. After this process, lime water was put into the liquor, which causes the particles of indigo to settle at the bottom. The liquor was then drawn off, and the sediment, which was the indigo, was taken out and spread on cloths, and partly dried; it was then put into boxes and pressed, and while it was yet soft, cut into square pieces, which were thrown into the sun to dry, and then put up in casks for the market. They had commonly three cuttings a season. A middle crop for 30 acres was 1300 pounds.

Rivers. The Savannah is the N. E. boundary. The Tennessee touches the N. W. corner of the state. The Alatamaha runs its whole distance in Georgia. The Alibama rises in Georgia. The Chatahouche rises in the state and is for a considerable distance its western boundary. These have already been described.

The Ogechee heads in Greene county, 170 miles from the ocean, and 50 from Savannah river. It winds in a southeasterly direction, about 200 miles; and empties into Hassabaw sound, a little north of the island of St. Helen's, and 15 S. W. of the Savannah.

Satilla river heads near the waters of Flint river, and pursues a crooked course, in an E. S. E. direction, to the Atlantic. It runs about 190 miles, and discharges its waters against Cumberland island.

St. Mary's river, the Indian Locklacufco, and a part of the southern boundary of the United States, heads in Okefonoke swamp. It issues from the swamp, on the south side, near the centre; and, at first takes a southern direction, for a considerable distance; then, after bending eastward, turns to the N. and proceeds as far as lat. 30 40. Its course is, thence, nearly due E. for 60 miles to the ocean, into which it empties between Amelia and Cumberland islands. For the last 30 miles, it has a wide open marsh on each side; above, its banks are covered with a thick forest. Its whole length is about 150 miles. The immense quantity of water, which, in wet weather, finds its way from the swamp through the St. Mary's to the ocean, is the best solution we have of the extraordinary depth of that river. Its water is every where deep enough for navigation; even so far up, that the banks are too near together to ad-

mit the passage of a vessel. Probably no river in the world incloses such a depth of water in so narrow a channel.

Crooked river, Turtle, Sapello, Newport and Little Ogechee are primitive rivers of a much smaller size.

Flint river rises in the country of the Creeks. It runs S. and then S. W. more than 200 miles; and in the S. W. corner of the state, discharges its waters into the Chatahouche, which here takes the name of the Apalachicola. It flows through a very rich and fertile country. The Creeks have numerous villages on its banks. The head-waters of the Okfuskee, and the Coosa, which form the Alibama, are in the mountainous country of Georgia.

Broad river, Little river, and Briar creek are the chief western tributaries of the Savannah.

The Ohoopee is an eastern branch of the Alatamaha; and the Little Satilla of the Satilla.

Swamps. Okefonoco is an Indian word, and means living ground or shaking ground. This swamp has been said to be 300 miles in circumference, but is not in fact more than 180. From it, is formed the two rivers called by the Indians Locklacufco, or St. Mary's, and Alopahaw, or St. Juan. The gentleman who furnished this article* penetrated this swamp on foot about 10 or 12 miles. About $\frac{3}{4}$ of it is Baygall swamp, so thick with under growth and bamboo briars, as to be almost impenetrable. The remainder, cypress ponds, some spots of rich hammuck and pine barren land, and of the latter there is no doubt so much that a passage might be found quite through the swamp, dividing those ponds connected with the sources of the two rivers before mentioned. The only inhabitants of which there were any traces, were alligators, snakes, frogs, and insects; of these there were abundance. The fabulous story of Mr. Bartram, of its being inhabited by beautiful women or any of the human race, must have been imposed on his credulity by some sagacious Indian, who found him inquisitive, and wished to excite his curiosity in such a way as to escape immediate detection. "The large portion of vegetable putridity and stagnant waters fully exposed to the heat of the sun, furnishes such a manufactory for muskетoes, as to give them a *warrantee title* over the soil of *Mr. Bartram's Paradise.*" The number of these insects, and the large portion of poisonous vapour produced in warm weather, render it uninhabitable by any human being. From the best information that can be obtained this swamp is about 60 miles in length from E. to W. and 40 in breadth. St. Mary's river comes out on the south side near its centre, and St. Juan a little south of the west end.

There is another swamp called Cypress swamp, between Flint and Satilla rivers, of which we have no accurate information.

Bays. There are numerous bays or sounds along the coast, between the islands and the main; the names and situation of which are best learned from the map.

Mountains. Cunaw-hee mountain is the southern termination of the Blue ridge. It rises, like a sugar loaf, out of the rich plains

* Capt. Hugh M'Call.

of Franklin county, and is about 1500 feet above the level of the sea. It is about 60 miles from the N. line of the state. The ridge north of it is much lower. The country below it gradually descends into hills, towards the headwaters of the Oconee, Oakmulge, and Chatahouche rivers. Westward of this range are some high lands, which occasionally rise to the elevation of mountains, but we have no particular account of them.

Botany. For an account of the forest trees see *face of the country* and *soil.* The mulatto and grey lands produce immense quantities of fine peaches, which are cultivated for the manufacture of peach brandy. Apples, pears, and cherries, are also raised, but with less success. The mulberry tree grows well, and is every where productive. On the pine barrens are raised the finest grapes in the union. For size and flavor they would be pronounced excellent by a native of Madeira. They may be raised in any quantities; and the only trouble necessary is elevating them from the ground. Those in Bulloch county are the finest, and at present the most abundant. The melons of Georgia are of a superior kind. The fine tropical fruits, and other plants, are cultivated with success on the coast, particularly on the southern half of it. The sweet oranges of Georgia and East-Florida are not inferior to those of the West-Indies. The orange, lemon, citron, pomegranate, Indian fig, arrowroot, and sugar cane, find here a genial climate. The almond tree has been introduced, with prospect of success, on a plantation near Augusta, within a few years.

Zoology. Alligators abound in the rivers of Georgia, and there are great numbers of reptiles, many of a venomous kind. The number of frogs is also prodigious. Musquitoes swarm, like the flies of Egypt, around the swamps and low grounds. The cochineal insect is found in great numbers on the leaves of the cactus opuntia, on the southern part of the coast. In July they propagate quickly, and at the approach of colder weather, withdraw to the under side of the leaf for a shelter during the winter.

Mineralogy. In the county of Washington, 12 miles from Milledgeville, is a large hill of yellow ochre. Several experiments have been made upon it, which justify the assertion, that for the fineness and softness of its particles and the beauty of its color it is not exceeded by any imported.

Mineral Springs. In the county of Wilkes, within a mile and a half of the town of Washingtcn, is a medicinal spring, which rises from a hollow tree, four or five feet in length. The inside of the tree is covered with a coat of matter, an inch thick, and the leaves around the spring are incrusted with a substance as white as snow. It is said to be a sovereign remedy for the scurvy, scrofulous disorders, consumptions, gouts, and every other disease arising from humours in the blood.

Cobb's mineral springs are situated in the county of Jefferson, and are famed for their medicinal virtues. In the summer they are a place of resort; 30 or 40 houses, or cabins of logs, are built for the accommodation of visitors.

Natural Curiosities. Rock spring, in Montgomery county, about

100 feet from the Oconee, on the east side, is surrounded by an extensive cane swamp. It is 30 feet deep, and gushes from a cavity in the rocks of 3 feet diameter, producing about 50 hogsheads of water in a minute. This water is remarkably clear and well tasted. Three or four large rock fish are constantly seen sporting at the bottom, and 50 or 60 at the mouth of the creek from 2 to 4 feet in length. There are 2 or 3 smaller springs, like this, on the opposite side of the river.

There is a curious cave, in the same county, between Saundersville and the Oconee. It is 70 or 80 feet long and about 30 or 40 deep. At the bottom, there are two cavities, entirely distinct from each other. One of them is a large natural well, with much water at the bottom, and is supposed to be upwards of 150 feet deep. The other is more superficial, but opens into a vault 25 or 30 feet in circumference.

Tockoa creek springs from the N. side of the Cunaw-hee mountain, and about 5 miles from it in a N. W. direction, forms a handsome bason, of considerable depth. The water of this bason flows through a short channel, about 20 feet wide, and a few feet deep, scooped out of solid rock. At the lower extremity of this channel the stream is precipitated 187 feet over the rock, which is a smooth and absolutely perpendicular precipice. The water shoots over the rock, and never touches it afterwards, but, gradually expanding itself in the air, at length falls, in the form of fine rain, into the deep bason below. The water, however, forms an almost entire sheet, when the creek is swollen by rain.

Islands. These are numerous; beginning at the north with Tybee island, on which is a lighthouse, and proceeding southwardly we pass Wassaw, St. Helen's, St. Catherine's, Sapelo, on which also is a lighthouse, St. Simon's, Jekyl, Cumberland and Amelia. On St. Simon's island is the town of Frederica, founded by Gen. Oglethorpe, and was one of the first towns built in Georgia. The fortress erected at its first settlement is still to be seen though in ruins. A branch of the Alatamaha runs on the west of the island and forms a bay before the town, affording a safe harbor for vessels of the largest burthen.

Cumberland island is very pleasantly situated at the mouth of St. Mary's river. This charming spot produces in abundance almost every useful vegetable, beside oranges, lemons, almonds, figs, and all the other tropical fruits. On this island is the delightful seat of Mrs. Miller, the former relict of general Greene.

MISSISIPPI TERRITORY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAME. ORIGINAL POPULATION. HISTORY. DIVISIONS AND POPULATION. RELIGION. GOVERNMENT. CHIEF TOWNS. ROAD. MANUFACTURES AND COMMERCE.

Extent. THIS territory extends from lat. 31° to 35° N. and from the Chatahouche, which empties into the gulf of Mexico, and is a part of the western boundary of Georgia, to the Missisippi; and is about 330 miles in length, from E. to W. and 278 in breadth; containing about 90,000 square miles.

Boundaries. Bounded N. by Tennessee; E. by Georgia; S. by West-Florida; W. by the Missisippi.

Name. It takes its name from the river which forms its western boundary.

Original Population. The Creek or Muskogee, Cherokee, Chactaw, and Chicasaw Indians, have been for ages, and still are, inhabitants of the greater part of this territory.

The *Creeks*, or *Muskogees*, who inhabit the eastern parts of this territory, and the western half of Georgia, have already been described.*

The *Cherokees* inhabit the country north of the Creeks, bordering on the river and state of Tennessee, having the Apalachian mountains on the E. Their country formerly extended W. to the Missisippi and N. to that of the Six Nations; but was surrendered by the treaty at Westminster, 1729, to the crown of Great Britain. In the beginning of the year 1810, the rev. Gideon Blackburn, who for several years was the laborious and faithful missionary among these Indians, gave the author the following particular and authentic account of the numbers and state of this nation.

"In the nation there are 12,395 Indians. The number of females exceeds the males 200. The whites in the nation are 341, One third of those have Indian wives, 113. Of negro slaves there are 583. The number of their cattle, 19,500; do. of horses, 6,100. The number of hogs, 19,600; do. of sheep, 1,037. They have now in actual operation 13 grist mills; 3 saw mills; 3 saltpetre works, and 1 powder mill. They have 30 waggons, between 480 and 500 ploughs, 1600 spinning wheels, 467 looms, and 49 silversmiths. Circulating specie is supposed to be as plenty as is common amongst the white people. These advantages have been mostly obtained since the year 1796, and rapidly increased since the year 1803. If we deduct from the year the number of Sabbaths it contains, and suppose that each spinning wheel turn off 6 cuts per day, the amount of 1600 will be 250,400 dozen of yarn in one year; this

* See page 561.

will make, when wove into cloth, 292,133 yards. If we should suppose each loom to put off 4 yards per day, the produce of 467 will be annually 584,684 yards. Allow two hands to a wheel 3,200 women will be employed in carding and spinning, 467 engaged in weaving, and as many to fill the quills. If each plough be allowed only 10 acres, then 500 ploughs would cultivate 5000 acres and would employ 1000 hands, as 1 must use the hoe after the plough. There is also nearly as much land in the nation wrought without a plough as with it; each acre will produce 50 bushels, which will be equal to 250,000, or 20 bushels to each person. The actual amount will double the sum. It is often asked, Are they increasing or on the decline? All I can say to this is, that both from my own observation and that of those most conversant with them, it is evident that there is less space between the younger children of families than those more advanced, and that in nearly the proportion as hunting life has yielded to the cultivation of the soil. The number of Bibles and Testaments, circulated in the nation, including the children of the schools, is upwards of 600, and a variety of other books as opportunity offered. On their roads they have many public houses, and on their rivers convenient ferries; there are many of them learning different trades, as their inclination may lead them."

The preceding statement evinces the happy effects of missionary labors, when vigorously and judiciously conducted, and is a great encouragement to perseverance in such benevolent exertions.

The *Chactaws* inhabit a very fine and extensive hilly country, with intervening and fertile plains, between the Alibama and Missisippi rivers. Several years since they had 43 towns and villages, in 3 divisions, containing about 6000 souls. In 1808 this nation sold to the United States a large tract of their territory, lying on the Pearl and Tombigbee rivers.

The *Chicasaws* inhabit a fine tract of country on the head branches of the Tombigbee, Mobile, and Yazoo rivers, in the N. W. corner of the Missisippi territory. They have 7 towns, the central one lies in lat. 34 23 N. and lon. 89 30 W. The number of souls has been estimated at 1725, of which 575 were fighting men. Their origin, as given by a late missionary,* from their own traditions, is as follows—"We are only a family from a great, rich nation towards the setting sun, as far as Indians travel in two moons; our fathers dreamed that towards the rising sun was the land of life; these people know more than Indians, and are above want; from them our posterity will learn good things. Our fathers then travelled, came here; this is the land of life. Our great Father's white children know more than Indians; Chicasaws not hurt any of them. Bye and bye we learn of them things make us glad." This agrees with the history of their conduct; other accounts say, they glory in never having shed the blood of an English American; that they have merited more from the United States than all the other Indian tribes. Like other savages, they believe in witchcraft. Every man has as many wives as he pleases; their connection is

* Mr. Bullen.

only during the pleasure of the parties; the children when the parents separate belong to the mother. A Chicasaw beau is loaded with ornaments, and covered with various paintings, with a looking glass in his pocket, or suspended by his side. They have lately given a kind reception to a Christian missionary from New-York, and it may be hoped that soon morals and the state of society will be improved among them. They have fields well cultivated, plenty of cows, horses, hogs, and corn. Numbers of white people have settled in their neighborhood, over whom our agent with the Indians acts as magistrate. In one of their towns is a post office.

The *Natchez*, formerly a powerful nation, and more civilized than any other Indian tribes, inhabited the country on the E. side of the Missisippi, around the present town of this name, particularly south of it. Nothing now remains of this nation but its name. The French completed their destruction in 1730. Du Pratz gives the following traditionary account of these Indians—"Before we came here (say they) we lived yonder under the setting sun." Perhaps in Mexico. "The country was fine, we maintained a warfare with the ancients of the country, who subdued some of our villages. Our people extended themselves along the great water, where this river loseth itself. But our enemies being numerous and wicked, our *Suns*" or princes, "sent persons to find a country where we might retire. They found a pleasant region on the east side of this river. We were ordered to remove into this land, to build a temple and to preserve the eternal fire. But the ancients our enemies, falling into divisions, our suns and a part of our people remained. After many generations their descendants joined us, when we were multiplied like the leaves of the trees. Now warriors of fire, who made the earth to tremble, had arrived in our old country, and conquered our ancient enemies. These warriors of fire were bearded, white men, who carried arms, which darted fire with a great noise, and killed men at a great distance; they had heavy arms which killed many at once, and like thunder made the earth tremble. They came from the rising sun in floating villages. The ancients, whom they subdued, inhabited from the western coast of the great water to the countries on this side the sun, and on this coast beyond the sun. Their villages were many and large, built of stone in which were houses, that would hold a whole village. Their temples were great, and their works beautiful." To the inquiry, whence are ye come? The answer was, "The ancient speech does not say from what land; all we know is, that our fathers, to come here, followed the sun, and came from the place where he rises; they were long on the journey; they were near perishing, and were brought to this country without seeking it." Some may, perhaps, suppose that the Natchez have their descent from the Phenicians, because, like them they have a sacred regard for the eternal fire; like theirs, their style is boldly figurative, and like them they scalp their enemies.

The *Yazoo* Indians, who inhabited on the river of that name, are now extinct, as a people.

History. A part of this territory has long been inhabited by

white people. In 1539, Ferdinand de Soto, with 900 men, beside seamen, from Cuba, proceeded as far as the Chicasaw country, lat. 35° or 36°, and in 1542 died, and was buried on the bank of the Missisippi. Since this period this country has often changed masters.

In 1773 gen. Putnam, capt. Enos, and Mr. Lyman, attempted a settlement on the Lousa Chitto, which failed.

In 1779 the British took possession of the Natchez country, which at this period was settling fast by immigrations from the northern states.

In 1795, when this territory belonged to the state of Georgia, its legislature sold to 4 different companies about 22,000,000 acres of its lands; which have been since purchased principally by gentlemen in the middle and eastern states. Serious disputes have since arisen concerning these lands, which are now in a train of adjustment between the United States and their present holders.

In 1800 this territory was erected into a separate government, with the same privileges which are enjoyed by the other territorial governments.

By treaty in Dec. 1801, at fort Adams, the Chactaw Indians relinquished to the United States all the land in the Missisippi territory between the old line of demarcation established by the British and the Missisippi river, bounded S. by the 31° of lat. and N. by the Yazoo river.

Divisions and Population. This territory is divided into 11 counties, whose population, according to the census of 1810, was as follows:

Counties.	Whole population.	Slaves.
Adams	10,002	5,671
Baldwin	1,427	717
Amite	4,750	1,422
Claiborne	3,102	1,538
Franklin	2,116	735
Madison	4,699	948
Jefferson	4,001	1,792
Washington	2,920	900
Warren	1,114	473
Wayne	1,253	262
Wilkinson	5,068	2,630
Total 11	40,352	17,088

Of the number of males, 7,489 were between 16 and 45.

Religion. There are but few clergymen of any denomination in this territory. It is in great part missionary ground. The inhabitants are chiefly emigrants from the older states, and some of them have carried with them their regard for the institutions of religion, while the greater part have little concern for these things.

Government. Similar to the other territorial governments in the United States. The governor and secretary are appointed by Congress, and hold their offices at their pleasure. The territory

may send one representative to Congress, who has the privilege of debating, but not of voting.

Chief Towns. NATCHEZ, the capital of this territory, is pleasantly situated on a considerable eminence, on the east bank of the Missisippi. Here is a printing office, and several very extensive mercantile stores. There is also a Roman Catholic church, but the Americans have stripped it of all its Spanish possessions, shut up the church, and have not yet erected one of their own. There are a great number of mechanics in the city, whose wages are very high, as is labor of every kind. It contains 1511 inhabitants, of which 459 are slaves.

WASHINGTON, another town in this territory, has 524 inhabitants, of which 182 are slaves.

Road. By consent of the Chactaws a road has been made from the northern settlements of the Missisippi territory, through the Chactaw country, to the lands claimed by the Chicasaws.

Manufactures and Commerce. On these heads we have received no late information, except that the exports during the year 1811 amounted to $1,441.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. SOIL, PRODUCTIONS, AGRICULTURE, RIVERS, INLAND NAVIGATION, &c. BOTANY. ZOOLOGY. CURIOSITIES.

Climate. THIS country is in the latitude of Palestine; its climate, of course, where not affected by stagnant waters, or other local causes, must be temperate and delightful. White frosts, and sometimes thin ice, have been known here, but snow is very uncommon.

*Soil, Productions, Agriculture, Rivers, Inland Navigation, &c.** We blend these articles, because they cannot be conveniently separated in the description. The lands bordering the rivers and lakes are generally well wooded; but at a small distance from them are very extensive natural meadows, or savannas, of the most luxuriant soil, composed of a black mould about 1½ foot deep, very loose and rich, occasioned, in part, by the frequent burning of the savannas; below the black mould is a stiff clay of different colors. It is said this clay, after being exposed some time to the sun, becomes so hard that it is difficult either to break or bend, but when wet by a slight shower of rain, it slackens in the same manner as lime does when exposed to moisture, and becomes loose and moulders away; after which it is found excellent for vegetation.

The soil of this country, says Mr. Hutchins, speaking of the tract between lat. 31° and 32° is superior to any of the lands on the borders of the Missisippi, for the production of many articles

* The information under this head is principally taken from capt. Hutchins, who personally visited and surveyed this country.

Its situation being higher, affords a greater variety of soil, and is in a more favorable climate for the growth of wheat, rye, barley, oats, &c. than the country lower down, and nearer to the sea. The soil also produces in equal abundance Indian corn, rice, hemp, flax, indigo, cotton, which is now the staple of this country, pot herbs, pulse of every kind, and pasturage; and the tobacco made here is esteemed preferable to any cultivated in other parts of America. Oranges and lemons are plenty. Hops grow wild; all kinds of European fruits arrive to great perfection, and no part of the known world is more favorable for the raising of every kind of stock. The country is delightful and well watered; and the prospects are beautiful and extensive, variegated by many inequalities and fine meadows, separated by innumerable copses, the trees of which are of different kinds, but mostly of walnut and oak. The rising grounds, which are clothed with grass and other herbs of the finest verdure, are properly disposed for the culture of vines; the mulberry trees are very numerous, and the winters sufficiently moderate for the breed of silk worms. Clay of different colors, fit for glass works and pottery, is found here in great abundance; and also a variety of stately timber fit for house and ship building, &c.

From Fort Rosailie lat. 31 40 N. 243 miles above New-Orleans, to the Petit Goufre, is 31½ miles. There is a firm rock on the E. side of the Missisippi, for near a mile, which seems to be of the nature of limestone. The land near the river is much broken and very high, with a good soil, and settled.

From the Petit Goufre to Stony river is 4½ miles. From the mouth to what is called the fork of this river, is computed to be 21 miles. In this distance there are several quarries of stones, and the land has a clay soil, with gravel on the surface of the ground. On the N. side of this river the land, in general, is low and rich; that on the S. side is much higher, but broken into hills and vales; but here the low lands are not often overflowed; both sides are shaded with a variety of useful timber. At the fork, the river parts almost at right angles, and the lands between, and on each side of them, are said to be clay and marl soil, not so uneven as the lands on this river lower down.

From Stony river to Louisa Chitto is 10 miles. This river at the mouth is about 30 yards wide, but within, from 30 to 50 yards, and is said to be navigable for canoes 30 or 40 leagues. About a mile and a half up this river, the high lands are close on the right, and are much broken. A mile and a half further, the high lands appear again on the right, where there are several springs of water, but none as yet have been discovered on the left. At about 8 miles further, the high lands are near the river, on the left, and appear to be the same range that comes from the Yazoo cliffs. At 6 miles further, the high lands are near the river on both sides, and continue for 2 or 3 miles, but broken and full of springs of water. This land on the left was chosen by general Putnam, and other New-England adventurers as a proper place for a town; and, by order of the governor and council of West-Florida, in 1773, it was reserv-

ed for the capital. The country round is very fit for settlements. For 4 or 5 miles above this place, on both sides of the river, the land is rich, and not so much drowned, nor so uneven, as some parts lower down. About 6½ miles further, there is a rapid water, stones and gravel bottom 160 yards in length; and in one place a firm rock almost across the river, and as much of it bare, when the water is at a moderate height, as confines the stream to nearly 20 feet; and the channel is about 4 feet deep.

From the Lousa Chitto to the Yazoo cliffs is 40 miles. From this cliff the high lands lie northeastward and south southeastward, bearing off from the river, full of cane and rich soil, even on the very highest ridges. Just at the S. end of the cliffs, the bank is low, where the water of the Missisippi, when high, flows back and runs between the bank and high land, which ranges nearly northerly and south southeasterly to the Lousa Chitto, occasioning much wet ground, cypress swamp, and stagnant ponds.

From the cliffs, is 7½ miles to the river Yazoo. The mouth of this river is upwards of 100 yards in width, and was found by Mr. Gauld to be in lat. 32 37 and by Mr. Purcel in 32 28 N. The water of the Missisippi, when the river is high, runs up the Yazoo several miles, and empties itself again by a number of channels, which direct their course across the country, and fall in above the Walnut hills. The Yazoo runs from the N. E. and glides through a healthy, fertile and pleasant country, greatly resembling that about the Natchez, particularly in the luxuriancy and diversity of its soil, variety of timber, temperature of climate, and delightful situation. It is remarkably well watered by springs and brooks; many of the latter afford convenient seats for mills. Further up this river the canes are less frequent, and smaller in size, and at the distance of 20 miles there are scarcely any. Here the country is clear of underwood, and well watered, and the soil very rich, which continues to the Chactaw and Chicasaw towns. The former is situated on the eastern branch of the Yazoo, 100 miles from the mouth of that river. The towns of the latter are about 15 miles W. of the N. W. branch, 150 miles from the Missisippi. The above branches unite 50 miles from the Missisippi, following the course of the river; the navigation to their junction, commonly called the fork, is practicable with very large boats in the spring season, and with smaller ones a considerable way further, with the interruption of but one fall, where they are obliged to make a short portage, 20 miles up the N. W. branch, and 70 miles from the Missisippi. The country in which the Chactaw and Chicasaw towns are situated, is said to be as healthy as any part of this continent, the natives scarcely ever being sick. Such of them as frequent the Missisippi, leave its banks as the summer approaches, lest they might partake of the fevers that sometimes visit the low swampy lands, bordering upon that river. Wheat, it is said, yields better at the Yazoo, than at the Natchez, owing probably to its more northern situation. One very considerable advantage will attend the settlers on the river Yazoo, which those of the Natchez will be deprived of, without going to a great expense; I mean the building with stone, there being great

plenty near the Yazoo, but none has yet been discovered nearer to the Natchez than the Petit Goufre, or little Whirlpool, a distance of 31½ miles. Between this place and the Balize there is not a stone to be seen any where near the river. Though the quantity of good land on the Missisippi and its branches, from the bay of Mexico to the river Ohio, a distance nearly of 1000 miles, is vastly great, and the conveniencies attending it; so likewise may we esteem that in the neighborhood of the Natchez, and of the river Yazoo, the flower of it all.

About a mile and a half up the Yazoo river, on the N. side, there is a large creek, which communicates with the Missisippi above the river St. Francis, about 100 leagues higher up, by the course of the river. It passes through several lakes by the way. At the distance of 12 miles from the mouth of the river Yazoo, on the S. side are the Yazoo hills. There is a cliff of solid rock at the landing place, on which is a variety of broken pieces of sea shells, and some entire. Four miles further up is the place called the Ball Ground, near which a church, fort St. Petre, and a French settlement, formerly stood. They were destroyed by the Yazoo Indians, in 1729. That nation is now entirely extinct.

Pearl river rises in the Chactaw country, and is navigable upwards of 150 miles. It has 7 feet water at its entrance, and deep water afterwards. In 1769 there were some settlements on this river, in which were raised tobacco, indigo, cotton, rice, Indian corn, and various sorts of vegetables. The land produces many kinds of timber fit for pipe and hogshead staves, masts, yards, and all kinds of plank for ship building.

Pascagoula river empties into the gulf of Mexico by several mouths, which together occupy a space of 3 or 4 miles, which is one continued bed of oyster shells, with very shoal water. The westernmost branch has 4 feet water, and is the deepest. After crossing the bar, there is from 3 to 6 fathoms water for a great distance, and the river is said to be navigable more than 150 miles. The soil on this river, like that on all the others that pass through Georgia into the gulf of Mexico, grows better as you advance to its source.

But the principal river in the teritory of which we are now speaking is the Mobile, including its branches. On the bar at the entrance of the bay of Mobile, there is only about 15 or 16 feet water; two thirds of the way through the bay, towards the town of Mobile, there is 2 or 3 fathoms; and the deepest water to be depended on in the upper part of the bay is only 10 or 12 feet, and in many places not so much. Large vessels cannot go within 7 miles of the town.

The bay of Mobile terminates a little to the northeastward of the town, in a number of marshes and lagoons; which subject the people to fevers and agues in the hot seasons.

The river Mobile, as you ascend it, divides into 2 principal branches, about 40 miles above the town: one of which, called the Tansa, falls into the E. part of the bay; the other empties itself close by the town, where it has a bar of 7 feet; but there is a branch a little

to the eastward of this, called Spanish river, where there is a channel of 9 or 10 feet, when the water is high, but this joins Mobile river about 2 leagues above the town.

Two or three leagues above the Tansa branch, the Alibama river falls into Mobile river, after running from the N. E. a course of about 130 miles; that is, from Alibama fort, situated at the confluence of the Coosa, and Talipoosa, both very considerable rivers; on which and their branches are the chief settlements of the upper Creek Indians.

The French fort at Alibama was evacuated in 1763, and has not since been garrisoned. Above the confluence of Alibama and Mobile, the latter is called the Tombigbee river, from the fort of Tombigbee situated on the W. side of it, about 96 leagues above the town of Mobile. The source of this river is reckoned to be about 40 leagues higher up, in the country of the Chicasaws. The fort of Tombigbee was taken possession of by the English, but abandoned again in 1767, by order of the commandant of Pensacola. The river is navigable for sloops and schooners about 35 leagues above the town of Mobile. The banks, where low, are partly overflowed in the rainy seasons, which adds greatly to the soil, and adapts it particularly to the cultivation of rice. The sides of the river are covered in many places with large canes, so thick that they are almost impenetrable; there is also plenty of remarkable large red and white cedar, cypress, elm, ash, hickory, and various kinds of oak. Several people have settled on this river, who find the soil to answer beyond expectation.

The lands near the mouth of the Mobile river are generally low; as you proceed upwards, the land grows higher, and may with great propriety be divided into 3 stages. First, low rice lands, on or near the banks of the river of a most excellent quality. Secondly, what are called by the people of the country second low grounds, or level flat cane lands, about 4 or 5 feet higher than the low rice lands. And, thirdly, the high upland or open country. The first or low lands extend about a half or three quarters of a mile from the river, and may almost every where be easily drained and turned into most excellent rice fields, and are capable of being laid under water at almost all seasons of the year. They are a deep black mud or slime, which have in a succession of time been accumulated, or formed by the overflowing of the river.

The second low grounds being, in general, formed by a regular rising of about 4 or 5 feet higher than the low lands, appear to have been originally the edge of the river. This second class or kind of land is in general extremely rich and covered with large timber and thick strong canes, extending in width upon an average three quarters of a mile, and in general a perfect level. It is excellent for all kinds of grain, and well calculated for the culture of indigo, hemp, flax, or tobacco.

At the extremity of these second grounds, you come to what is called the high or uplands, which are covered with pine, oak, and hickory, and other kinds of large timber. The soil is of a good quality, but much inferior to the second or low land. It answers

well for raising Indian corn, potatoes and every thing else that delights in a dry soil. Further out in the country again, on the W. side of this river, you come to a pine barren, with extensive reed swamps and natural meadows or savannas, which afford excellent ranges for innumerable herds of cattle.

On the east of the river Mobile, towards the river Alibama, is one entire extended rich cane country, not inferior perhaps to any in America.

Whenever portages are made between the Mobile and Tennessee river, or their branches, which are probably but a few miles apart, the Mobile will be the first river for commerce (the Mississipi excepted) in this part of the world, as it affords the shortest and most direct communication to the sea.*

The river Escambia is the most considerable that falls into the bay of Pensacola. There is a shoal near the entrance of this river, and vessels that draw more than five or six feet water cannot be carried into it, even through the deepest channel; but there are from 2 to 4 fathoms afterwards. Mr. Hutchins ascended this river upwards of 80 miles, where, from the depth of water, it appeared to be navigable for pettiaugers many miles further. This river has a very winding course. "The lands in general, on each side of the river, are rich low or swamp, admirably adapted for the culture of rice or corn, as may suit the planter best; and what gives these low lands a superiority over many others, is the great number of rivulets that fall into this river from the high circumjacent country, which may easily be led over any part of, or almost all the rice lands at any season of the year whatever. Near the mouth of this river is a great number of islands, some of very considerable extent, and not inferior for rice to any in America. The settlements made by Messrs. Tait and Mitchel, Capt. Johnson, Mr. M'Kinnon, and some others, are very evident proofs of this assertion, who, in the course of two years from their first settlement, had nearly cleared all the expenses they had been at in making very considerable establishments; and I am well assured would entirely have done it in another year, had not the Spaniards taken possession of the country."†

The Chatta Hatcha or Pea river, which also heads in the Mississippi territory, empties from the northeast into Rose bay, which is thirty miles long and from four to six broad. The bar at the entrance into the bay has only 7 or 8 feet water at deepest; but, after crossing the bar has 16 or 17 feet. The mouths of the river (for almost all the southern rivers have several mouths) are so shoal that only a small boat or canoe can pass them. Mr. Hutchins ascended this river about 75 miles, and found that its banks very much resembled those of Escambia.

The northern parts of this territory are watered by the Tennessee, which has a circuitous course of many miles through the northern part of Georgia, and the Hiwassee and Chiccamauga rivers, which fall into the Tennessee from the S. E. Travellers speak of

* Hutchins. † Hutchins.

the lands on these waters in terms of the highest commendation. The Chiccamauga mingles its waters with the Tennessee near what is called *the Whirl*, and on its banks stand the Chiccamauga Indian towns. Its head branches are not far from the waters of Mobile river.

The mouth of the Hiwassee is 66 miles above the *Whirl*. A branch of the Hiwassee, called Amoia, almost interlocks with a branch of the Mobile. The portage between them is short, and the road all the distance firm and level.

Botany. This country is principally timbered with all the different kinds of oak, but mostly with live oak of the largest and best quality, uncommonly large cypress, black walnut, hickory, white ash, cherry, plum, poplar trees, and grape vines; here is found also a great variety of shrubs and medicinal roots.

Zoology. There is no remarkable difference in the animals of this territory from those of the Tennessee, Georgia, and the other southern states.

Curiosities. On the head waters of the Mobile are found oyster shells. They are of an astonishing size, and in such quantities as to forbid the idea of their being carried there from the sea, which is 300 miles distant. The Chicasaws say they were there when their fathers came into the country. They use the shells in making earthen ware.*

LOUISIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. POPULATION. MILITIA. INHABITANTS AND CHARACTER. LANGUAGE. LITERATURE. CITIES AND TOWNS. INLAND NAVIGATION. LIGHT HOUSE. MANUFACTURES. COMMERCE.

Boundaries and Extent. THE boundaries of Louisiana are not settled; its extent of course cannot be ascertained. It is estimated, however, to contain nearly a million square miles.

Louisiana was ceded to the United States "with the same extent that it had in the hands of Spain, that it had when France possessed it." What then were the limits of Louisiana when in the hands of France in 1762, and afterwards while in possession of Spain? For these are to be its present limits. It is proper here to observe that *West-Florida* is known neither in French nor Spanish geography. It originated with the British in 1763, at which time, all the country east of the

* Imlay.

Missisippi, except New-Orleans, was ceded to this nation, who then for the first time divided the territory south of Georgia, and east of the Ibberville, into East and West Florida. This territorial division continued only till the country was taken by, and confirmed to Spain, in 1783, except in the books of English and American geography.* "Before the treaty of peace, in 1762, Louisiana extended, in the French maps, from the gulf of Mexico, to near 45 degrees of N. lat. on the W. side of the Missisippi, and to near 39 degrees on its eastern bank. Its boundaries were Canada on the north, New-York, Pennsylvania, Virginia, Carolina, and the N. W. part of the easternmost peninsula of Florida on the east, the gulf of Mexico south, and New-Mexico west."† According to Du Pratz, Louisiana is bounded S. and W. as above; N. in part by Canada; "in part it extends without any assignable bounds, to the terra incognitæ, adjoining to Hudson's bay; E. by the British provinces above mentioned, and by Rio Perdido, signifying lost river, aptly so called by the Spaniards, because it loses itself under ground, and afterwards appears again and discharges itself into the sea a little E. of the Mobile, on which the first French planters settled." This river is in lat. 38° N. lon. 87 35 W. These limits of Louisiana, as possessed by France and Spain, and acknowledged by other powers, are from the best authorities, and it is presumed may be considered as correct; and they give us the extent of Louisiana; the boundaries of which, as far as can be ascertained, are as follows, viz. S. on the gulf of Mexico, from the bay of St. Bernard, S. W. of the Missisippi, to the mouth of the Rio Perdido, above described; up this river to its source, and thence, (if it rise not N. of the 31st degree of lat.) on a straight line N. to that parallel;‡ thence along the southern boundary of the United States W. to the Missisippi; then up this river to its source, as established by the treaty of 1783. Beyond this point the limits, (which are conjectural and have never been ascertained) may be considered as including all the country lying between the White Bear lake, or other head of the Missisippi, and the source of the Missouri; and between this last and the head springs of the Arkansas, Red river, and other copious streams, which fall into the Missisippi; or in other words, we may consider Louisiana as bounded N. and N. W. by the high lands, which divide the waters which fall into the St. Lawrence and Hudson's bay, from those which fall into the Missisippi; W. by that high chain of mountains, known by the name of the *Shining mountains*, which may be called the *Spine* or *Andes* of that part of North-America, and which turn the waters on the west of them to the Pacific, and those on the east to the Atlantic ocean.

* Mitchell's MS. Letter. † Hutchins.

‡ Spain, on the contrary, insists that the Missisippi is the eastern boundary of Louisiana, and the western of West-Florida, between the parallel of 31° on the N. and the commencement of the Bayau Manshac, or river Ibberville (129 miles below, following the course of the river) on the S.; and that the Ibberville, with lakes Maurepas and Ponchartrain,* is thence the limit of the two countries to the gulf of Mexico.

* The mouth of lake Ponchartrain is in lat. 30° N. and lon. 89 40 W.

It embraces, in one word, the whole slope, or inclined plain fronting the southeast and east down which the streams of all sizes, flow into the bed of the Missisippi. On the southwest it is bounded by New-Mexico, between which and Louisiana, the divisional line has never been settled. The viceroy of Mexico claims, that his jurisdiction reaches eastward to the *Rio Marmentas* or *Mexicano*, emptying into the gulf in lat. 29 37 north, and in lon. 93 12 west; while the United States insist, that the *Rio Bravo del Norte*, which empties into the gulf of Mexico in lat. 25 50, and lon. 97 30 west, is the boundary between Louisiana and Mexico. The interval of sea coast, between the *Mexicano* and *Bravo* is about 600 miles. For reasons hereafter to be stated, we are led to believe, that the *Rio Colorado*, is the true western boundary. This falls into the northwest corner of the gulf, about half way between the other two, in lat. 29 15 north, and lon. 97 10 west.

The extent of coast between the mouth of lake Ponchartrain and that of the Mexicano is about 280 miles; between the Mexicano and the Perdido 420; between the Perdido and Colorado 720; and between the Perdido and Bravo 1020.

Divisions. Louisiana is divided into two governments, the *state of Louisiana*, and the *territory of Louisiana.*

The state of Louisiana comprehends,

1. The country between the Perdido on the E. the Missisippi on the W. the Ibberville and the gulf on the S. and the Missisippi territory on the N.

2. The island of Orleans, which is the tract of land lying between the Missisippi on the S. W. and the Ibberville and lakes Maurepas and Ponchartrain, on the N. E. The Ibberville is a bayau or arm of the Missisippi, which leaves it on the E. 208 miles from its mouth, according to the course of the river, and flows through lakes Maurepas and Ponchartrain, to the gulf of Mexico. The island stretches from E. S. E. to W. N. W. in a straight line, about 160 miles. Its breadth varies from 6 to 25 miles.

3. All the territory W. of the Missisippi and S. of lat. 33°.

The territory of Louisiana comprehends all the country W. of the Missisippi and N. of lat. 33°.

The former is bounded N. by Louisiana and Missisippi territories; E. by the Missisippi and the Perdido; S. by the gulf of Mexico; and W. by Mexico.

The latter has Mexico on the W.; the state of Louisiana on the S.; the Missisippi, which separates it from the Missisippi territory, Tennessee, Kentucky, and Illinois territory, on the E.; and unexplored regions on the N.

Name. The name of *Louisiana* was given to the territory in honor of Louis XIV. by Mons. De la Salle.

History. This country was first discovered by Ferdinand de Soto, in 1541; it was afterwards visited by Col. Wood, in 1654; by Capt. Bolt, in 1670; and in 1682, by Mon. de la Salle, from Canada, who was the first who traversed the river Missisippi.* In

* Hutchins.

1684 he left France with a colony of about 170 men, for the mouths of the Missisippi. By mistake, they passed the place of destination, and landed Feb. 1685, in the bay of St. Barnard, about 300 miles W. of the mouths of the Missisippi. This little colony, "most of whom were very corrupt," were badly provided with provisions and ammunition, most of them being swallowed up in the waves, through the perfidy of the sea officers intrusted with the landing of them; and after encountering many hardships, La Salle was murdered by some of his own men, and the whole colony miserably perished in various ways, except 7, who penetrated through the country to Canada.* In 1699, Mon. Ibberville of Canada, laid the foundation of the first French colony on the Missisippi. The country now for the first time was called Louisiana.†

Two years after a new recruit of settlers arrived; but the unfavorable situation in which they were planted, the death of Ibberville, contributed to reduce the colony to great wretchedness; and in 1712 had diminished their number to 28 families. At this period Crozat, a merchant of immense fortune, petitioned for and obtained the exclusive trade of Louisiana. In 1717 he resigned his charter to a company formed by that famous projector John Law. The most extravagant accounts of this country were now industriously circulated through various parts of Europe; and "the Missisippi became the centre of all men's wishes, hopes, and speculations."

In the years 1718 and 1719, while this frenzy prevailed, a numerous colony of laborers collected, from France, Germany, and Switzerland, and allured by the most flattering promises and expectations, were conveyed to Louisiana, and settled in a district called *Biloxi*, on the island of Orleans; the miserable fate of this colony, who perished by hundreds, ruined the reputation of Louisiana; and this enchanting country was now execrated, and its very name for a while became a reproach. It became the receptacle of the lowest and most profligate persons in the kingdom. In this state the colony languished, till 1731, when the company, at the expense of 1,450,000 livres, purchased the favor of relinquishing their concerns into the hands of government.‡

The French remained in quiet possession of this extensive country, except frequent contests with the Indians, till 1762. The Spaniards of New-Mexico indeed, in 1720, jealous of their active neighbors, formed a scheme of establishing a large colony on the Missouri, far beyond the limits which they had been wont to prescribe for themselves, for the purpose of reducing the limits, and overawing the French colonists. Accordingly, numerous caravans, who were to constitute this colony, proceeded from St. Fe, and directed their march towards the country of the Osage Indians, with design to engage this nation, the mortal enemies of the Missouris, to join them in conquering the country of the latter, which they resolved to occupy. The Spaniards missed their way, and went directly to the nation, whose ruin they meditated; and ignorant of

* Raynal. † Raynal. ‡ Raynal.

their mistake, communicated their design without reserve. The Missouri chief, who, by this singular mistake, became acquainted with the danger which threatened him and his people, concealed his feelings, and informed the Spaniards that he would readily assist in accomplishing their plan, and requested 48 hours to assemble his warriors. In the mean time, the unsuspecting Spaniards were amused with sports, till 2000 warriors had collected with their arms, when they fell upon the Spaniards while asleep, and slew every soul, except the chaplain, who owed his preservation to the singularity of his dress.*

The Natchez tribe of Indians proved for a time a formidable enemy to the colony; but in the year 1731, the whole tribe was nearly extirpated. In 1736 and again in 1740, the colonists were engaged in bloody wars with the Chicasaw Indians, in the former of which, the French were defeated; the latter terminated in peace, which has not since been interrupted.

In April, 1764, the French court announced to the inhabitants, that in Nov. 1762, Louisiana, embracing New-Orleans, and the whole territory W. of the Missisippi, had been ceded to Spain by a secret treaty. This measure was severely and justly censured, not only as impolitic, but as an offence against morality. The colonists, without their knowledge or consent, were given away to a foreign power. They did not submit to this unjust measure without manly opposition, so that complete possession of the country was not obtained by Spain, till the 17th of August, 1769. The day following, such of the citizens as chose, took the oaths of allegiance to the king of Spain. "Every thing was now completed but revenge. Victims were required. Twelve were selected from among the most distinguished in the army, the magistracy, and trade. Six of these generous men atoned with their blood, for the consideration they enjoyed. The others, perhaps more unfortunate, were sent to languish out their lives in the dungeons of the Havannah; and this horrible tragedy was ordered by the Spanish ministry, while the French ministry showed no indignation!"†

By the treaty of peace in 1763, Canada with the whole territory belonging to France, eastward of the middle of the Missisippi to the Iberville, thence through the middle of that river to the lakes Maurepas and Pontchartrain to the gulf of Mexico, was ceded to Great Britain.‡ By this treaty the boundaries of the British provinces were extended southward to the gulf of Mexico, and westward to the Missisippi, the navigation of which to its mouth was to be free to both nations, and Louisiana was limited N. by Canada, and E. by the Missisppi, excepting that it included the island of New-Orleans, on its E. bank. This state of things remained till the American revolutionary war, during which, Spain, in 1779, 1780, and 1781 took from Great Britain, the two Floridas; the United States, according to their present limits, became an independent government, leaving to Great Britain, of all her American provinces, those only which lie N. and E. of the United States. All these changes were sanctioned and confirmed by

* Raynal. † Raynal. ‡ See Treaty.

the treaty of 1783. From that period, these respective proportions of North-America remained without any change of proprietors, till the treaty of St. Ildefonso, of Oct. 1, 1800. By this treaty Spain "*promises and engages on her part, to cede to the French republic, six months after the full and entire execution of the conditions and stipulations therein contained relative to the Duke of Parma, the colony or province of Louisiana, with the same extent that it actually has in the hands of Spain, that it had when France possessed it, and such as it should be after the treaties subsequently entered into between Spain and other states.*" "This treaty was confirmed and enforced by that of Madrid, on the 21st of March, 1801. From France it passed to the United States by the treaty of the 30th of April, 1803, as above mentioned, with a reference to the above clause as descriptive of the limits ceded."*

The above recited clause from the treaty of Ildefonso, which makes a part of the treaty of the 30th of April, 1803, between the United States and the French republic, contains our title to Louisiana, for which the government of the United States engaged to pay to the French government, the sum of 60,000,000 of francs, independent of the sum fixed by another convention for the payment of the debts due by France to the citizens of the United States.†

In December, 1803, Louisiana was, in due from, delivered by the commissaries of Spain, to the commissioner of France, Mon. Laussat, who delivered it over to the commissoners of the United States, Gov. Claiborne and Gen. Wilkinson, on the 20th day of the same month. Gov. Claiborne being duly invested by the president with the powers heretofore exercised by the governor and intendant of Louisiana, assumed the government on the same day, and for the maintenance of law and order immediately issued his proclamation. This immense addition of territory to the United States, forms an important epoch in our history. What will be the ultimate effect upon the government, union, and happiness of our country, cannot be foreseen. Conjectures are various. Time will be continually unfolding the consequences of this great event. All must contemplate them with solicitude for the honor and welfare of the nation.

In Nov. 1808, at the treaty of fort Clark, the Great and Little Osage Indians agreed, for certain stipulated advantages, that the

* Jefferson.

† For the payment of this sum of 60,000,000 francs, it was stipulated that "the United States shall create a stock of 11,250,000 dollars, bearing an interest of six per centum, per annum, payable half yearly in London, Amsterdam, or Paris, amounting by the half year to 337,500 dollars, according to the proportions which shall be determined by the French government to be paid at either place: The principal of the said stock to be reimbursed at the treasury of the United States, in annual payments of not less than 3,000,000 of dollars each; of which the first payment shall commence 15 years after the date of the exchange of ratifications; this stock shall be transferred to the government of France, or to such person or persons as shall be authorised to receive it, in *three months at most*, after the exchange of the ratifications of this treaty, and after Louisiana shall be taken possession of in the name of the government of the United States."

boundary line between them and the United States should be as follows, viz. "beginning at fort Clark on the Missouri, 5 miles above Fire Prairie, and running thence a due S. course to the river Arkansas, and down the same to the Missisippi, ceding and relinquishing forever to the United States, all the lands which lie east of the said line, and N. of the southwardly bank of the said river Arkansas, and all lands situated northwardly of the river Missouri." They further ceded, at the same time, a tract of 2 leagues square, to embrace fort Clark.

The territory of Orleans was made a state in 1811; and the country between the Ibberville and the Perdido was taken possession of in the latter part of that year, and in 1812.

Religion. The state of religion in this newly acquired territory is sufficiently deplorable. The Spaniards and French who remain here are professedly Catholics. "Their clergy consists of a bishop, who does not reside in the province, and whose salary, of 4000 dollars, is charged on the revenue of certain bishoprics in Mexico and Cuba; 2 canons, having each a salary of 600 dollars, and 25 curates, 5 for the city of New-Orleans, and 20 for as many country parishes, who receive each from 360 to 480 dollars a year. Those salaries, except that of the bishop, together with an allowance for sacristans and chapel expenses, are paid by the treasury at New-Orleans, and amount annually to 13,000 dollars. There is also at that place a convent of Ursulines, to which is attached about 1000 acres of land, rented out in three plantations. The nuns are now in number not more than 10 or 12, and are all French. There were formerly about the same number of Spanish ladies belonging to the order; but they retired to Havanna during the period when it was expected that the province would be transferred to France. The remaining nuns receive young ladies as boarders and instruct them in reading, writing, and needle work. They have always acted with great propriety, and are generally respected and beloved throughout the province. With the assistance of an annual allowance of 600 dollars from the treasury, they always support and educate 12 female orphans."*

The emigrants from the states are principally adventurers, more intent on gain than concerned for their religious interests. They have few places of worship. The whole of this country is proper missionary ground.

Governments. The government of the *Territory of Orleans* was constituted in March, 1804. The *executive* power was vested in a *governor*, appointed by the president of the United States for 3 years, who was commander in chief, and had the power of granting reprieves; and in a *secretary*, appointed in the same manner, for 4 years, who, in the case of the vacancy of the office of governor, was to discharge its duties. The *legislative* power was vested in the governor and 13 others, to be appointed annually by the president from the resident freeholders. The *judicial* power was vested in a superior court, consisting of 3 judges, in inferior courts

* Jefferson.

to be appointed by the legislature, and in justices of the peace. This form of government, it is expected, will be shortly superceded by the constitution of the new state of Louisiana, into which the territory of Orleans has been erected.

The country north of the parallel of 33° was at the same time (1804) constituted the *District of Louisiana*, and placed under the jurisdiction of the governor and judges of the Indiana territory. In March, 1805, it was constituted the *Territory of Louisiana*. The *executive* power was organized in the same manner as in the territory of Orleans, above recited. The *legislative* was vested in the governor and 3 judges; and the *judicial* in the 3 judges, who retain their offices 4 years, and hold two courts annually in the district. This still remains the form of government for this territory.

Population. The number of inhabitants in the whole of Louisiana was estimated, in 1757, at 10,000. An accurate census was taken, 1766, by order of gov. Ulloa, the result of which was as follows:

Whites	Men	1893		
	Women	1044		
	Boys	1375	5556	
	Girls	1244		11,496
Slaves			5940	

An incomplete census, taken in 1804, gave the following results:

Whites	21,244	
Free blacks	1,768	35,932
Slaves	12,920	

The following is the result of the census of 1810.

Territory of Orleans	Whites	34,311		
	Free blacks	7,585	76,556	
	Slaves	34,660		97,401
Territory of Louisiana	Whites	17,277		
	Free blacks	607	20,895	
	Slaves	3,011		

The items of the census of 1810 were as follow:

		males.	females.	total.
Territory of Orleans	Under 16 years of age	8,339	7,972	16,311
	Between 16 and 45	8,093	5,900	13,993
	45 and upwards	2,508	1,499	4,007
	Total	18,940	15,371	34,311
Territory of Louisiana	Under 16 years of age	4,783	4,478	9,261
	Between 16 and 45	3,637	2,800	6,437
	45 and upwards	967	562	1,529
		9,387	7,840	17,227
	Grand total	28,327	23,211	51,538

The state of Louisiana is divided into 5 districts, as follows :

			Population.
1st District	County of Orleans	Parish of Orleans, viz. City and suburbs of N. Or. Precincts of New-Orleans	33,402
		Parish of Plaquemine	
	Germans Coast	St. Bernard St. Charles St. John Baptiste	
2d District	Acadia	St. James Ascension	13,320
	La Fourche	Assumption Interior of La Fourche	
	Ibberville	Ibberville	
3d District		Baton Rouge	8,897
	Point Coupee	Point Coupee	
	Concordia	Concordia	
4th District	Ouachitta	Ouachitta	8,520
	Rapides	Rapides Catahula Avoyelles	
	Natchitoches	Natchitoches	
5th District	Opelousas	Opelousas	12,417
	Atakapas	Atakapas	
			76,556

This state is entitled to send 1 representative to Congress.

Divisions of Louisiana territory.

	Population.
District of St. Charles	3,505
Do. of St. Louis	5,667
Do. of St. Genevieve	4,620
Do. of Cape Girardeau	3,888
Do. of New-Madrid	2,103
Settlements of Hopefield and St. Francis	188
Do. on the Arkansas	874
	20,845

Militia. The militia of this extensive country amounts to about 15,000 men; but of their present condition we have no authentic information.

Inhabitants and Character. The inhabitants of Louisiana are chiefly the descendants of the French and Canadians. There is a considerable number of English and Americans in New-Orleans. The two German coasts are peopled by the descendants of settlers from Germany, and a few French mixed with them. The three succeeding settlements up to Baton Rouge contain mostly Acadians, banished from Nova-Scotia by the English, and their descendants. The government of Baton Rouge, especially the E. side, which includes all the country between the Ibberville and the A-

merican line is composed partly of Acadians, a very few French, and of a great majority of Americans. On the W. side they are mostly Acadians: at Point Coupee and Fausee river they are French and Acadians; of the population of the Atacapas and Opelousas, a considerable part is American; Natchitoches, on the Red river, contains but a few Americans, and the remainder of the inhabitants are French; but the former are more numerous in the other settlements on that river, viz. Avoyelles, Rapide, and Ouachita. At Arkansas they are mostly French; and at New-Madrid, Americans. At least two fifths, if not a greater proportion of all the settlers on the Spanish side of the Missisippi, in the Illinois country, are likewise supposed to be Americans. Below New-Orleans the population is altogether French and the descendants of Frenchmen.* The natives of the southern part of the Missisippi country are sprightly, have a turn for mechanics, and the fine arts, but their system of education is so wretched that little real science is obtained. Many of the planters are opulent, industrious, and hospitable.† See New-Orleans.

Language. Spanish, French, and English are all spoken at New-Orleans; but neither of them with any considerable degree of purity.

Literature. There are no colleges, and but one public school, which is at New-Orleans. The masters of this were formerly paid by the king. They taught the Spanish language only. There are a few private schools for children. Not more than half of the inhabitants are supposed to be able to read and write, of whom not more than 200 perhaps are able to do it well. In general the learning of the inhabitants does not extend beyond those two arts; though they seem to be endowed with a good natural genius, and an uncommon facility of learning whatever they undertake.‡

Cities and Towns. NEW-ORLEANS is the only town of any considerable consequence in the whole of Louisiana. It was founded in 1717, and stands on the east bank of the Missisippi, 87 miles from its mouth, 1308 below that of the Missouri, and 1115 below that of the Ohio. It is on the S. W. side of the island of Orleans, 4 miles from lake Ponchartrain, with which it is connected by the canal of Carondelet, in lat. 29 57 N. lon. 89 55 W. The town is regularly laid out, the streets cross each other at right angles, and are generally about 40 feet broad. The side walks are paved with bricks or flat stones, but the middle of the streets are unpaved. The houses of the principal streets near the river are built of brick, and are covered with slate or tiles. The back part of the town is chiefly of wood. The length of the town along the river is upwards of a mile, and its breadth more than half a mile. In the centre of the town stands the cathedral and the town house, and in front of them an open square covered with grass. The *Levee* is an embankment of earth about 6 feet high, commencing at fort Placquemine, 43 miles below, and reaching to the Ibberville, at the head of the island, 121 miles above the city, according to the course of the river.

* Jefferson. † Ellicott. ‡ Jefferson.

It makes an excellent road about 20 feet wide, which is dry at all seasons of the year; and passes directly in front of the town along the margin of the river, affording a very pleasant evening walk. In the evening after sunset it is crowded with company. All the markets are on the Levee. At the S. E. end of the town stands a building, lately occupied as a convent by a number of Ursuline nuns. The city, suburbs, and precincts of New-Orleans contain 24,552 inhabitants, of whom 13,728 are whites, and 10,824 slaves. There are also a number of Indians. Great numbers of the whites are French; certainly more than half. The different grades have each their different amusements. The fashionable part of the town is divided into two parties, who have each their respective ball-rooms. Into that of the *whites* none are admitted, who are known to be tainted with negro blood. Into that of the *yellows* none can enter, who have not some white blood in their veins. The white gentlemen are here admitted freely, and they generally prefer it to the other. It is always superior in the elegance of its decorations, and the splendor of the dress of the company. Billiards abroad, and cards at home, are the common amusements of the white gentlemen in the afternoon. There are here two French theatres. They are open three times a week; but the fullest and most brilliant audience always assembles on *Sunday* evening. Billiards are the general amusement on Sunday morning and afternoon; the stroke of the cue and the mace then resounding from one end of the city to the other. The drums for the theatre beat early on Sunday evening. The blacks also are permitted a day of amusement on Sunday, when twenty different dancing groupes may be seen with each their appropriate music in the rear of the town. They commonly do not break up till sunset.

The Indians are wretched outcasts from the Tunica, Alibama, Chittemaches, and Atacapas tribes, residing in the vicinity of the town. They go chiefly naked, and exhibit daily the most disgusting scenes of riot, intoxication, and debauchery.

New-Orleans in the licentiousness of its morals rivals the corruption of the old world.

St. Louis is a village of 200 houses beautifully situated on the Missisippi, 14 miles below the Missouri, in lat. 38 18 N. lon. 89 36 W. Considerable settlements are made on the banks of the latter river for several hundred miles. This town and its district contains 5667 inhabitants.

St. Genevieve is 73 miles below St. Louis, in lat. 37 51 N. lon. 89 28 W. It is the storehouse of the mines in its neighborhood. Population, with its district, 4,620.

New-Madrid is 181 miles below St. Genevieve, in lat. 36 34 N. lon. 89 20 W. It is the lowest settlement on the west side of the river, and contains, with its district, 2,103 inhabitants.

Mobile is described under West-Florida.

Inland Navigation. The navigation of the Missisippi has been already minutely described.* The Missisippi itself, the great riv-

* Page 123.

ers connected with it, Red river, the Arkansas, the Ohio, the Missouri, the Illinois, and their branches open an extent of inland navigation of which there is hardly a parallel on the globe. The difficulty of ascending the Missisippi, however, deprives New-Orleans of many of the advantages it would otherwise enjoy. The easiest and most usual mode for coasting vessels to transport their merchandize to New-Orleans is to ascend lake Ponchartrain to the mouth of bayau St. John. The goods are here put into boats, carried up the bayau 6 miles, and thence through the canal of Carondelet, to the city walls. This canal is 2 miles in length, and leads from lake Ponchartrain, by way of the bayau of St. John, to the city of New-Orleans, and is to be extended to the Missisippi. It is about to be deepened sufficiently throughout to admit an easy and safe passage for gunboats, if on a survey it shall be deemed practicable. For this purpose Congress, in Feb. 1809, appropriated 25,000 dollars.

Lighthouse. A suitable light is to be erected and established, by order of Congress, at or near the entrance of bayau St. John, into lake Ponchartrain.

Manufactures. There are but few domestic manufactures. The Acadians manufacture a little cotton into quilts and cottonades; and in the remote parts of the province, the poorer planters spin and weave some negro cloths of cotton and wool mixed. There is one machine for spinning cotton in the parish of Ibberville, and another in the Opelousas; but they do little or nothing. In the city, besides the trades which are absolutely necessary, there is a considerable manufacture of cordage, and some small ones of shot and hair powder. There are likewise in and within a few leagues of the town 12 distilleries for making taffia, which are said to distil annually a very considerable quantity; and 1 sugar refinery, said to make about 200,000 lbs. of loaf sugar.*

Commerce. The difficulty of ascending the Missisippi has, in a great measure, cut off New-Orleans from supplying the western states with foreign merchandize. Hitherto it has been found cheaper to purchase articles in New-York and Philadelphia and carry them *by land* to Pittsburg, at the forks of the Ohio, and thence down that river to the various towns on its banks, than to transport them up the Missisippi and the Ohio. The experiment of the steam boat is now trying in the western waters. If boats of that description, sufficiently strong to resist the *sawyers*, *planters*, *sleeping sawyers*, and *wooden islands*, which abound in the Missisippi, can be made to ascend it with loads of merchandize, at the rate of 3 or 4 miles an hour, and to travel safely *by night*, as well as *by day*, New-Orleans may bid defiance to the efforts of Montreal, New-York, and Philadelphia, to engross the foreign trade of the whole western country. Should the experiment fail, most of the commerce she would otherwise enjoy, will probably be divided between those three cities; and it will fall, of course, chiefly to the one which can supply foreign goods at the lowest price. The

* Jefferson.

difference of price will depend principally on the expense of internal transportation. At present, the advantage in this respect, is greatly in favor of Montreal. The single carrying place at the falls of Niagara excepted, there is a free navigation for the vessels of the lakes from Montreal to lake Erie, and to the immense extent of waters beyond. When we consider also that goods arrive at Montreal without paying any duty, and that they can easily be smuggled into the state of Ohio, to any amount, at an expence and risk, which, united, will fall greatly short of the duties on American imports, we can hardly hesitate to believe, that, in the existing state of things, Montreal must become the emporium of the western world.

The canal of 300 miles in length, on an inclined plain, proposed to be opened between lake Erie and the Hudson, in order to divert the trade of the western country from Montreal to New-York, has heretofore been mentioned. There appears little probability that this grand project can be carried into execution; at least before the commercial connexions and intercourse between the Ohio and the St. Lawrence have become so settled, that it will be difficult to shake them.

In 1802, 268 sail, including 18 public armed vessels, entered the Missisippi. Of these 170 were American, 97 Spanish, and 1 French. The tonnage of the 250 merchant vessels amounted to 33,725. In the same year, 265 sail, measuring 31,241 tons, left the Missisippi; viz. 158 American, measuring 21,383 tons; 104 Spanish, measuring 9753; and 3 French, measuring 105.

In the same year the imports into Louisiana and the Floridas from the United States amounted to $1,224,710; and the exports to the United States from those countries to $1,006,214. The whole imports in 1804, were estimated at $2,500,000; and the exports at $2,158,005. The exports from the port of Orleans, in 1810, amounted to $1,890,952; of which $1,753,974 were of domestic produce, and $136,978 of foreign. In 1811, the exports of domestic produce amounted to $2,501,842, and of foreign to $148,208; total $2,650,050. The bulky articles of the western country, particularly flour, corn meal, and beef, go down the Missisippi, and are cleared out at New-Orleans. The exports from Louisiana, of its own produce, consist chiefly of cotton, sugar, molasses, and furs. As the western states are now turning their attention very generally from flour to hemp, with the view of transporting it by land to the Atlantic ports, the amount of exports from New-Orleans will soon be seriously diminished, unless the experiment of the steam boat should be successful. This change of agriculture is owing to the danger of a voyage down the Missisippi, and to the difficulty and expense of returning. Numbers of boats are lost every year between the Ohio and New-Orleans, with their hands and cargoes. If the boat arrives safe with a cargo of flour, the owner finds but a low cash price for its load, and goods are of no use, as they will not pay for transportation up the river. The boat itself will only sell for its amount of wood, as it is fit for no navigation, but that of the river, and as there is no means of getting it

back to the Ohio to perform a second voyage. The hands are compelled to travel back on foot more than 1000 miles along the banks of the Missisippi, a long and weary way through a wilderness of swamps and forests, and then to ascend the Ohio to their respective homes; or to sail for New-York or Philadelphia, at an expense of 50 dollars, and thence return across the mountains.

Climate. The weather at New-Orleans, in the winter, is very pleasant; in the summer it is hot and sultry. The climate of all Louisiana, below the Ohio, is described as every where unhealthy. This is owing to the nature of the surface, and to the swamps and marshes, which so extensively deform it. Along the Missouri, and farther north, it becomes more salubrious.

Face of the Country. The wilderness north of the Missouri is still unexplored. The bank of the Missisippi, from the bend at the mouth of the Missouri to cape Girardeau, 157 miles, continues generally high, except the interval land, from 1 to 4 miles wide, on the margin of the river; yet it forms throughout this distance a ridge of only moderate elevation. From cape Girardeau to the Grand Chain of Rocks, 21 miles, the bank assumes a mountainous aspect. Below this chain, the bank is but little higher than the ordinary level of the water, and in freshets is almost every where overflowed. The bank is also only from one quarter of a mile to two miles wide, and the country west of it, from 20 to 50* miles in breadth, is an immense swamp to the river's mouth, annually overflowed to a great depth during the season of freshets, and the rest of the year covered with stagnant water. This water covers an extent of more than 40,000 square miles, and is incapable of being converted to any useful purpose. The country lying west of this swamp, between it and the viceroyalty of Mexico, has been little explored. Humboldt describes it as consisting of vast steppes or savannahs, covered with grass, partly marshy and partly more elevated and firm. The Spaniards have no settlement east of the Colorado; and there are scarcely any near the coast, west of the Missisippi. Fort Claiborne, on Red river, and according to Humboldt's map, in lat. 32° N. and lon. 95° W. is the farthest of the American settlements westward.

Soil. The steppes or savannahs west of the Missisippi swamp are described by Mr. Jefferson as too rich to bear forest trees, and as covered with a tall rank grass, in which numberless herds of buffaloes and deer are lost. The cultivable land near New-Orleans, is extremely fertile; as is much of that near the Missouri, and on the other western branches of the Missisippi. On this head, however, much information is still to be expected.

Rivers. The rivers in that part of the state of Orleans, which lies east of the island of Orleans, are described under the article West-Florida; as is the Ibberville with lakes Maurepas and Ponchartrain. The Missouri and Missisippi have heretofore been minutely described.†

The river St. Pierre falls into the Missisippi 10 miles below the

* Ellicott says from 35 to 40. † Page 122, 123.

falls of St. Anthony. Carver says he sailed up about 200 miles, and found it deep and navigable. It rises far to the west, and is a river of very considerable consequence.

The river De Moines is a large stream emptying into the Missisippi between the St. Pierre and Illinois.

The St. Francis falls into the Missisippi 508 miles below the Missouri, in lat. 34 44 N. and lon. 90 29 W. by a mouth 200 yards wide. It is navigable upwards of 200 miles. Its course is S. E. and its head waters are at no great distance from the Osage, a branch of the Missouri.

White river falls into the Missisippi 595 miles below the Missouri, by a mouth 150 yards wide. It runs in the same direction with the St. Francis, and is navigable more than 100 miles.

The Arkansas empties 615 miles below the Missouri, and 20 below White river, in lat. 34 1 N. lon. 91 4 W. A natural canal, leaving White river 4 or 5 miles above its mouth, is said to communicate with the Arkansas, about 22 miles above its entrance into the Missouri. The Arkansas is navigable 500 or 600 miles. It rises in Mexico. Humboldt supposes that it may be the same with Napestle, a river which rises, according to his map, in lat. 40° N. lon. 106° W. at a small distance from the source of the Rio Bravo del Norte, and pursues for a while a S. E. course towards the Missisippi. The Arkansas having been explored a great distance, is found to run where it should have been expected to run, if it were a continuation of the Napestle, and no other outlet for this last is known. If this be its real source, the Arkansas must be at least 1500 miles long.

Red river falls into the Missisippi in lat. 31 5* N. lon. 91 37 W. 1068 miles below the Missouri, 10 miles below the line of demarcation. It rises in Mexico, and is there according to Humboldt, believed to be the same with the Rio de Pecos, which rises near 38° N. and 104° W. a little northeast of the village of Taos. This belief depends on the same facts, as the similar one in the case of the Arkansas. Its length on this supposition is upwards of 1200 miles. The village of Rapide, is almost 100 miles up Red river; that of Avoyelles, 150; and that of Natchitoches, about 240. Fort Claiborne is still higher.

Bayau Chafalaia leaves the Missisippi 3 miles below the mouth of Red river. The channel of the bayau and of Red river are of about the same dimensions, and Schultz conjectures that the bayau was formerly the outlet of that river. The Missisippi is known to be constantly changing its channel. About 4 or 5 miles to the east of where it now runs there is a string of small lakes, which appear to have formerly been its bed. If they were, and Red river ran in the present channel of the Missisippi (as the nature of the ground indicates that it must have done) it would have found no other outlet than the bayau. On this supposition there was once a narrow strip

* The line of demarcation between the Missisippi territory and West-Florida is in lat. 31°, and Red river empties in 31 5; yet the mouth of Red river is 10 miles below the Florida line. This is owing to the fact that the Missisippi, immediately below that line, makes a circular bend of 52 miles to gain 6.

of land, 5 miles broad, between the two rivers. The narrow neck, 6 miles across, mentioned in the preceding note, is gradually wasting away by the force of the current. When it is worn through, Red river will probably resume its former course.

The Rio Mexicano, or Mermentas, empties into the gulf in lat. 29 37 lon. 93 12. It is short and of no consequence except as the contested boundary of Louisiana.

The Sabine is a larger and longer stream, emptying about 40 miles west of the Mexicano.

The Rio de la Trinidad is drawn on Humboldt's map about 50 miles east of the Colorado, as a still longer and larger stream.

Mineralogy. The celebrated lead mines of Louisiana lie in a tract of country, about 50 miles long and 25 broad, called *The Mines.* This tract commences about 25 or 30 miles W. of St. Genevieve. *Mine le Mott* is the nearest to the Missisippi; the *Mines of Garberie*, 17 miles from that; the *New Diggings*, 13 miles farther; thence to *Mine le Berton*, 3 miles; thence to the *Old Mines*, 5; which are 83 miles from St. Louis. Mine le Berton was discovered about 60 years ago. The ore is very abundant in all this tract, and is very rich. At the works the price of the ore is 18 or 20 dollars a thousand weight, and that of the metal 5 dollars a hundred weight. Most of the ore will produce from 80 to 90 per cent. of pure metal. About 912 tons were smelted in 1807. The quantity of metal is probably inexhaustible. The conveniences for smelting are very indifferent. There is but one air furnace in the whole country. This is at Mine le Berton. An extensive shot manufactory has been established at the same place.

SPANISH AMERICA.

GENERAL OBSERVATIONS.

EXTENT. DIVISIONS. RELIGION. GOVERNMENT. INHABITANTS. COINAGE. COMMERCE.

Extent. PREVIOUS to the late revolution in Spain, she claimed about half of the western continent. Two valuable provinces, however, have lately declared themselves independent; symptoms of revolt have been manifested in all the others; and a part of one of them (West-Florida) has been actually taken possession of by the United States. On the Pacific, Spain claims from *cape Mendocino*, in lat. 41° N. to the southern extremity of the continent; though her highest northern settlement is *Puerto San Francisco*, in lat. 37 48 N. and her highest southern on the continent, *fort Maullin*, in lat. 41 43 S. The length of coast between these two settlements is more than 1900 marine leagues.

On the Atlantic Spain claims the whole coast from the mouth of the *St. Mary's* in lat. 30 45 N. to *cape Sable*; and thence N. and W. on the gulf of Mexico, to the mouth of lake Ponchartrain in lat.

30° N. and 89 40 W. The United States however insist that Louisiana reaches E. of lake Ponchartrain, 140 miles, to the mouth of the *Perdido*, in lat. 30 15 N. and lon. 87 35 W. The United States also insist that the *Rio Bravo del Norte*, in lat. 25 50 N. and lon. 97 30 W. is the W. limit of Louisiana on the gulf. Spain on the contrary contends that it reaches no farther than the mouth of the *Rio Mermentas*, or *Mexicano*, in lat. 29 37 N. and lon. 93 12 W.

From the mouth of the *Mexicano* Spain claims the whole coast of the gulf of Mexico, of the Caribbean sea, and of the Atlantic, to the mouth of the *Essequebo*, in lat. 7° N. lon. 58 40 W. On the S. E. coast of South-America she also claims from the mouth of the little river *Chuy*, in lat. 33 40 S. to the extremity of the continent; although her real southern limit, by the treaty with the *Pamtas*, is *cape Lobos*, in lat. 37 45 S.

The late revolt of the two northern provinces in South-America interrupts the continuity of the Spanish main, on the Pacific. The whole coast, from *Punta Gorda*, the southern limit of Guatemala, in about lat. 9° N. to the mouth of the *Tumbez*, the northern boundary of Peru, in lat. 3 25 S. being the western limit of New-Granada, is now independent territory. On the Caribbean sea, Spain has also lost all the coast between the mouth of the *Dorados*, a river of the isthmus, in about lat. 10° N. and the mouth of the *Essequebo*. The N. coast of the gulf, between the mouths of *lake Ponchartrain* and the *Perdido*, has been taken possession of by the United States.

Divisions. We will give the divisions of this territory as they lately stood, noticing also their present condition.

I. In North-America.

1. East-Florida.
2. West-Florida. Now partially claimed by the United States.
3. Viceroyalty of Mexico or New-Spain.
4. Captaingeneralship of Guatemala.

II. In the West-Indies.

1. Captaingeneralship of Cuba.
2. Captaingeneralship of St. Domingo.
3. Captaingeneralship of Porto Rico.

III. In South-America.

1. Viceroyalty of New-Granada or Western Terra Firma.
2. Captaingeneralship of Caraccas, Venezuela, or Eastern Terra Firma.
3. Viceroyalty of Peru.
4. Viceroyalty of Buenos Ayres.
5. Captaingeneralship of Chili.

Religion. The Catholic is the religion established in all these countries. There are three tribunals of the inquisition in Spanish America, one at Mexico, one at Carthagena, and one at Lima. For a considerable period the attention of these bodies had been chiefly confined to the suppression of offensive books. The catalogue of prohibited authors, printed in 1790, contained the names of 5420; many of whom were among the first writers that the world has produced.

Government. The fundamental maxim of Spanish jurisprudence, with respect to America, was always to consider the provinces as vested in, or belonging to the crown. The bull of Alexander VI. on which, as her great charter, Spain founded her rights, bestowed all the regions that had been, or should be discovered as *a free gift* on Ferdinand and Isabella; and constituted them not only the sovereigns, but the proprietors of the soil. From the crown all grants of land emanated, and to it they finally reverted.

The supreme direction of all the provinces was committed to the *council of the Indies.* This council was first established by Ferdinand in 1511, and brought into a more perfect form by Charles V. in 1524. It lately consisted of a president, 22 counsellors, 4 secretaries, besides other officers; and was divided into 4 *camaras*, or *chambers*; two of which were especially charged with affairs of administration, a third with appeals from the legal decision of the royal audiences; and the fourth, composed of the oldest counsellors, with the nomination of viceroys, captain generals, governors, and other magistrates, archbishops and bishops. The whole council, also, was entrusted with the enaction of laws. All ordinances relative to the government and police of the colonies, originated here, and must have been approved by two thirds of all the members before they were issued in the name of the king.

The king's representative in each province is either a viceroy, or a captain general. The viceroys are appointed in some cases for three, in others, for five years, and possess the regal prerogatives within their own governments. Like the king they exercise supreme authority in every department of government, civil, military, and criminal. The external pomp of their government well accords with its real dignity and power. A sumptuous establishment, officers of state, and a regular household, numerous attendants and guards both of horse and foot, displaying the insignia of civil power, and of military command scarcely retain the semblance of delegated authority. The stated salaries of the viceroys are moderate; their real incomes from various unauthorized sources are enormous. The viceroy is president of the audience.

The captain generals possess power in their own provinces, scarcely inferior to those of the viceroys, but with less of pomp, and fewer of the insignia of royalty.

The jurisdictions, or intendencies, into which each of the colonies is divided, have each its own governor or intendant, who takes the title of lieutenant general, has important civil powers, and is supreme military commander of the jurisdiction.

The royal audiences are the supreme tribunals of justice, both in civil and in criminal causes. Of these there were 13:

1. Guadalaxara,
2. Mexico, } in the viceroyalty of Mexico.
3. Guatemala, in that captaingeneralship.
4. Havannah, in Cuba.
5. St. Domingo, in Hispaniola.

6. Panama,
7. Santa Fe de Bogota, } in New-Granada.
8. Quito, 1563,
9. Caraccas, 1786, in Venezuela.
10. Lima, 1542, in Peru.
11. St. Jago, in Chili.
12. La Plata, 1559,
13. Buenos Ayres, 1783, } in Buenos Ayres.

Each audience consists of a president, who is usually the viceroy, or captain general, but, in several, the governor of the province in which it is placed; of a regent; a number of *oiders* (auditors) or judges; fiscals for civil, criminal, and financial affairs; and one or more reporters and alcaldes or alcades. Each member has the title of *Highness*. The audience in the absence of the viceroy has all the viceroyal powers and prerogatives. It is the high court of justice in each colony, receives appeals from all civil and criminal tribunals, and is the court of final appeals in all causes where not more than $10,000 is concerned. As a deliberative body the viceroy is directed to consult it on every emergency. If he acts contrary to the advice of the audience, he takes the sole responsibility on himself. The audience has also the power, in certain cases, of remonstrating against the political regulations of the viceroy, and of laying the matter before the council of the Indies. That body also looks to the audience for correct information in case of any dispute between a viceroy and a subordinate governor.

Inhabitants. There are six great classes of inhabitants in Spanish America, 1. The *whites*; 2. The *Indians*; 3. The *negroes*; 4. The *mestizos*, or descendants of whites and Indians; 5. The *mulattoes*, or descendants of whites and negroes; 6. The *Samboes*, or descendants of Indians and negroes.

The whites compose two classes, 1. The *Europeans*, generally called *Chapetones*, and, in Mexico, *Gachupines*; 2. The *criollos* or *creoles*, or whites of European extraction born in America.

The mestizos are classified according to their descent, 1. The mestizo proper is $\frac{1}{2}$ white and $\frac{1}{2}$ Indian; 2. The *terceron mestizo* is $\frac{3}{4}$ white and $\frac{1}{4}$ Indian. These very often are as white as the creoles, or as the southern Spaniards; and the offspring of a white and a terceron mestizo have all the privileges of a white. 3. The *sambo mestizo* is $\frac{1}{4}$ white and $\frac{3}{4}$ Indian.

The classes of the mulattoes are more numerous.

Casts.	*Mixture of blood.*
1. The quinteron	$\frac{15}{16}$ white $\frac{1}{16}$ negro
2. The quarteron	$\frac{7}{8}$ white $\frac{1}{8}$ negro
3. The terceron	$\frac{3}{4}$ white $\frac{1}{4}$ negro
4. The mulatto proper	$\frac{1}{2}$ white $\frac{1}{2}$ negro
5. The sambo de mulatto	$\frac{1}{4}$ white $\frac{3}{4}$ negro
6. The sambo prieto	$\frac{1}{8}$ white $\frac{7}{8}$ negro

The name also of *sambo de terceron* is given to the offspring of a terceron and negro, and so of the higher classes.

The proper *Samboes*, or offspring of Indians and negroes, though really of various degrees, are not, so far as we know, distinguished into classes.

Coinage. The following statement of the whole coinage of Spanish America, in the year 1796, is given in the written report of the viceroy Don Francisco de Taboada y Lemos, to his successor, the marquis of Osorno.

Coined at Mexico	24,000,000	North America	24,200,000
at Guatemala	200,000		
at Lima	6,000,000	South America	14,000,000
at Potosi	4,600,000		
at St. Jago de Chili	1,200,000		
at Popayan	1,000,000		
at Santa Fe de Bogota	1,200,000		
		Total	$38,200,000

Commerce. It was early the object of the Spanish monarchs to secure the produce of the colonies to the mother country. They accordingly prohibited all intercourse between them and foreign nations. Charles V. went farther, and restricted the commerce of the colonies to the single port of Seville; and ordered all ships, both outward and inward bound, to be inspected by the *Casa de la Contratacion*, a commercial board at Seville. The Guadalquivir at that time was navigable for the largest vessels up to that city. It was carried on by fleets annually equipped, which sailed under strong convoys; consisting of two squadrons, one called the *galleons*, and the other the *flota*. The galleons sailed for Porto Bello, and the flota for Vera Cruz. In 1650, when this trade was most prosperous, the two squadrons did not exceed 27,000 tons. The Guadalquivir, after a while, ceased to be navigable, and the port of Seville, in 1720, was changed for that of Cadiz. Caraccas was the first province released from this commercial thraldom. Its trade was granted, in 1728, to the company of Guipuscoa, which was permitted to send two merchant frigates, of 50 guns, laden with the produce of Spain, to be discharged at the port of La Guira; and in 1734, to send any number of vessels whatever.

In the war of the succession Spain opened the trade with Peru to her allies the French. They furnished European goods at moderate prices, and in such abundance that every province was supplied. This trade was prohibited at the close of that war. In 1702, the king made an *assiento* with the French Guinea company, to furnish the Spanish dominions with negro slaves. The company engaged to furnish 3800 annually, as long as the war of the succession lasted, and 4800 in time of peace, and to pay 33⅓ dollars per head. As it proved unable to fulfil its engagement, the assiento was transferred, in 1713, to the English South Sea company for 30 years; they engaged to furnish annually 4800, and to pay the same duty on the first 4000; and being excused, (in consequence of a loan of $200,000 to the court of Madrid, to be repaid in 10 years,) from paying any duty on the last 800, and permitted to introduce as many negroes as they could dispose of, on paying half that duty on all over the stipulated number. They

were also authorized to send annually one ship of 500 tons, and for the first 10 years, one of 650, to the fair at Porto Bello; and to establish factories for the sale of negroes at Carthagena, Panama, Vera Cruz, and Buenos Ayres. This opened the way to a most extensive smuggling trade between the English merchants and the Spanish Main. Information, expeditious and authentic, was constantly furnished of the state of the markets; and the squadron of the galleons dwindled from 15,000 to 2000 tons, and served scarcely any purpose but to bring home the royal treasure. To prevent these pernicious effects, ships of force, called *guarda costas*, were stationed on the coasts. This excited jealousies and murmurs; bickerings and complaints ensued; and several unjustifiable acts of violence, committed by the commanders of these ships, were followed by actual hostilities between England and Spain, in 1739.

By the decree of 1740, *register ships* were permitted to sail from Seville or Cadiz, in the intervals between the stated seasons when the galleons and flota sailed, on obtaining a licence from the council of the Indies. In 1748, the galleons and flota were entirely laid aside. The same year peace was concluded with England, and the South Sea company for an adequate indemnification gave up the four remaining years of their term.

By the decree of October 16th, 1763, several of the Spanish ports were permitted to trade immediately with the Caribbees, and with the province of Campeachy, in Guatemala, and with those of St. Martha and Rio de la Hacha, in New-Granada. In 1764, packet boats were permitted to sail monthly from Corunna to Cuba or Porto Rico, and every two months to Buenos Ayres; and to take in half a cargo of Spanish produce. In 1774, the colonies were all permitted to trade with each other.

But it was under the ministry of Galvez, that the commercial restrictions were thrown off, and a free trade opened between the colonies and the mother country. By the decree of February 2d, 1778, a free commerce was extended to Buenos Ayres, Peru, and Chili; and, by that of the 16th of October following, to Caraccas, New-Granada, and Guatemala. The last decree also admitted St. Andero, Gijon, Corunna, Seville, Malaga, Carthagena, Alicant, Barcelona, Palma in Minorca, and St. Croix in Teneriffe, one of the Canaries, to share with Cadiz in the colonial commerce. In 1785, Mexico, the only remaining province, was admitted to the same privileges, as were several other ports in Spain.

Previous to 1778, only 12 or 15 register ships were employed in the trade with Spanish South-America, and these seldom performed more than one voyage in three years. The following table will exhibit the effect of the decrees of 1778, in a single year.

Trade between Spain and Spanish South-America in 1778.

Ports.	Imports to South-America					Exports from S. America.		
	Ships.	Spanish produce.	Foreign produce.	Total.	Duties.	Ships.	Value of cargoes.	Duties.
		£	£	£	£		£	£
Cadiz	63	332,701	922,543	1,255,244	66,926	57	860,257	24,388
Corunna	25	69,691	66,826	136,507	7,184	21	683,328	43,387
Barcelona	23	163,290	52,513	215,803	8,384	25	107,714	1,932
Malaga	34	85,637	12,927	98,564	3,618	10	24,746	120
St. Andero	13	19,128	99,807	118,935	7,666	8	114,852	1,680
Alicant	3	5,299	2,308	7,607	328	8	29,896	
Teneriffe	9	30,165		30,165	1,735	6	43,164	2,780
	170	705,911	1,156,924	1,862,835	95,841	135	1,863,957	74,287

In 1788 the commerce between Spain and Spanish South-America was as follows:

Ports.	Imports from South-America.			Exports from S. America.
	Spanish produce.	Foreign produce.	Total.	
	£	£	£	£
Seville	95,276	14,342	109,618	3,249
Cadiz	2,281,311	3,038,346	5,319,657	18,382,886
Malaga	318,801	33,684	352,485	296,738
Barcelona	742,210	52,083	794,293	886,162
Corunna	249,838		249,838	2,040,400
St. Sebastian	9,114	79,488	88,602	283,888
Alfaquez	21,610	360	21,970	6,231
Gijon	1,544	28,300	29,844	16,052
St. Andero	127,072	281,949	409,021	657,398
Alicant	13,564	815	14,379	15,878
Palma	14,972		14,972	6,852
Canaries	55,264	32,991	88,255	71,585
	3,930,576	3,562,358	7,492,934	22,667,320

FLORIDAS.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. POPULATION. TOWNS. COMMERCE.

Extent. THIS country lies S. of the United States, between lat. 25° and 31° N. and between lon. 81° and 91 50 W. The length of the whole country, from the Missisippi to the Atlantic, is 610 miles. The Apalachicola divides East from West-Florida.

The length of the former, from cape Sable S. to the St. Mary's N. is 400 miles; its breadth, from the Apalachicola W. to the coast E. is 190, but the average breadth of the peninsula is not more than 150 miles. The length of West-Florida, in lat. 31° from the Missisippi to the Apalachicola, is 420. Its breadth from the parallel 31° N. to the gulf, varies from 40 to 80, and averages about 50.

Boundaries. East-Florida is bounded, on the N. by Georgia; on the E. by the Atlantic and the Florida gulf; on the S. by the same gulf; on the W. by the gulf of Mexico, and the Apalachicola, which separates it from West-Florida.

West-Florida is bounded, on the N. by the Missisippi territory; on the N. E. corner for 25 or 30 miles, by the Chatahouche, which divides it from Georgia; on the E. by the Apalachicola, which separates it from East-Florida; on the S. by the gulf of Mexico, and by the river Ibberville and the lakes Maurepas, and Ponchartrain, which divide it from the large island of Orleans; on the W. by the Missisippi, which separates it from Louisiana. The United States, however, insist that West-Florida reaches no farther W. than the mouth of the Perdido, in lon. 87 35 W.

Divisions. The division of the country into East and West-Florida was made by the English, while the country was in their hands, in 1763. The Spaniards recognize the division. The United States, in 1811, took possession of all that part of West-Florida that lies between the mouths of lake Ponchartrain, and of Rio Perdido.

Name. Juan Ponce de Leon gave the country the name of *Florida*, "because" says Purchas, "it was first discovered on Palm Sunday, or Easter day, which the Spaniards call *Pasqua Florida*; and not, as Thevot writes, for the flourishing verdure thereof." Peter Martyr agrees with Purchas. The Spaniards long applied the name to the whole North-American coast.

History. Sebastian Cabot discovered the country in 1497. Ponce sailed along the eastern coast in 1512, and going on shore, April 2d, took possession in the name of the king of Spain. The first attempt to settle it was made, in 1524, by Luke Vasquez; the second, in 1528, by Pampilo de Narvaez, who had received a grant of the country from Charles V.; the third by Ferdinand de Soto, governor of Cuba, in 1539; and the fourth by John Ribault, a Frenchman, in 1562. Pedro Melandez, a Spaniard, broke up the French settlement in 1565; and Dominique de Gourgues, a soldier of Gascony, drove away the Spaniards in 1568. The king of France disowning the acts of De Gourgues, the French soon quitted the country, and the Spaniards reoccupied it.

In 1763 it was ceded to Great Britain in exchange for the Havanna. West-Florida was taken by the Spaniards, in 1781, and both countries ceded to Spain in 1783. The government of the United States has claimed West-Florida since the cession of Louisiana.

Religion. There are few churches or clergy of any denomination in this country. The prevalent form of the Christian religion is that of the Roman Catholic. The whole country is proper missionary ground.

Government. Each of the provinces has a governor of its own. Both are within the jurisdiction of the captain general of Cuba, and of the audience of the Havanna.

Population. The number of Spaniards and creoles is very small, probably not more than 20,000 in both provinces. The wandering Creeks, or seminoles, possess most of East-Florida.

Towns. ST. AUGUSTINE is the capital of East-Florida. It stands on the E. coast, lat. 29 45 N. 80 leagues N. of the gulf. It is of an oblong figure, intersected by 4 streets at right angles. The town is fortified, has a church and monastery, and about 3000 inhabitants. The breakers at the entrance of the harbor have formed 2 channels, whose bars have 8 feet water each.

NEW-SMYRNA, in East-Florida, is situated on a shelly bluff, on the W. bank of the S. branch of Musquito river, about 10 miles above the capes of that river, lat. 22° N. It is inhabited by a colony of Greeks and Minorquies, established by Dr. Turnbull. When Mr. Bartram visited it, it was a thriving town.

PENSACOLA is the principal town in West-Florida. The harbor is on the N. shore of the gulf of Mexico, 11 leagues E. of Port Lewis and Mobile, and 158 W. of the islands of Tortuga. It is a beautiful body of water, spacious, and safe from all winds, and has 4 fathoms at its entrance, deepening gradually to 7 or 8. The bar lies in lat. 30 18 N. and lon. 87 17 W.* and admits of vessels drawing no more than 21 feet water. Pensacola, lying along the beach of the bay, is of an oblong form, healthy and delightfully situated, and is about a mile in length, and ¼ of a mile in breadth. While in possession of the British it contained several hundred habitations; and many of the public buildings and houses were spacious and elegant. The governor's palace is a large stone building, ornamented with a tower, built by the Spaniards. Since this place has been in possession of the Spaniards, it has been on the decline. The town and fort of Pensacola surrendered to the arms of Spain, in the year 1781, and with them the whole province. The old fortifications stood on some sand hills back of the city, too distant to yield any substantial protection.

MOBILE is built on the W. side of Mobile river, at its entrance into Mobile bay, 30 miles from the gulf of Mexico. The situation is handsome, and some of the houses tolerably good. It is said to be sickly in July, August, September, and October. The fort is of brick and stands a short distance below the city. The latitude of the town is 30 36 30 N. and the longitude 88 4 W. The governor of West-Florida now resides here. The town is 60 miles W. from Pensacola. The two towns contained, in 1799, about 1500 inhabitants.

Commerce. The trade of East-Florida centres in St. Augustine, that of West-Florida in Pensacola and Mobile. The exports of Pensacola, consisting of skins, logwood, dying stuff, and silver dollars, amounted, while in possession of the British, to 63,000*l.* sterl. annually. The average value of imports for 3 years from Great

* Ellicott.

Britain was 97,000*l.* Mobile, during the same period, annually sent to London skins and furs, to the amount of from 12,000 to 15,000*l.* sterling.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY. SOIL, PRODUCTIONS, AND BOTANY. RIVERS. LAKES. BAYS. ISLANDS. MINERALOGY AND SPRINGS.

Face of the Country. A RIDGE of low hills runs through the peninsula of East-Florida; but both coasts are level and low for a considerable distance. West-Florida is chiefly a flat country. There is a little upland near the northern boundary.

Soil, Productions, and Botany. There is in this country, a great variety of soils. The eastern part of it, near and about St. Augustine is by far the least fruitful; yet even here two crops of Indian corn in a year are produced. The banks of the rivers which water the Floridas, and the parts contiguous, are of a superior quality, and well adapted to the culture of rice and corn, while the more interior country, which is high and pleasant, abounds with wood of almost every kind; particularly white and red oak, live oak, laurel magnolia, pine, hickory, cypress, red and white cedar. The live oaks, though not tall, contain a prodigious quantity of timber. The trunk is generally from 12 to 20 feet in circumference, and rises 10 or 12 feet from the earth, and then branches into 4 or 5 great limbs, which grow in nearly a horizontal direction, forming a gentle curve. "I have stepped," says Bartram, "above 50 paces on a straight line, from the trunk of one of these trees to the extremity of the limbs." They are ever green, and the wood almost incorruptible. They bear a great quantity of small acorns, which make an agreeable food when roasted, and from which the Indians extract a sweet oil, which they use in cooking homminy and rice.

The laurel magnolia is the most beautiful among the trees of the forest, and is usually 100 feet high, though some are much higher. The trunk is perfectly erect, rising in the form of a beautiful column, and supporting a head like an obtuse cone. The flowers are on the extremities of the branches. They are large, white, and expanded like a rose, and are the largest and most complete of any yet known; when fully expanded, they are from 6 to 9 inches diameter, and have a most delicious fragrance. The cypress is the largest of the American trees. "I have seen trunks of these trees," says Bartram, that would measure 8, 10, and 12 feet in diameter, for 40 and 50 feet straight shaft." The trunks make excellent shingles, boards, and other timber; and, when hollowed, make durable and convenient canoes. "When the planters fell these mighty trees, they raised a stage round them, as high as to reach above the buttresses; on this stage 8 or 10 negroes ascend with their axes, and fall to work round its trunk."

The intervals between the hilly parts of this country are extreme-

ly rich, and produce spontaneously the fruits and vegetables that are common to Georgia and the Carolinas. But this country is rendered valuable in a peculiar manner, by the extensive ranges for cattle.

Neither province can ever be very valuable on account of its productions; but both are of great consequence to the United States; East-Florida for its coast and harbors; and West-Florida, also, as it is the outlet of many large and navigable rivers in the Missisippi territory.

Rivers. St. John's river is the largest in East-Florida. It rises in a large swamp near the centre of the peninsula, and pursues a northerly course to the Atlantic, emptying 31 miles north of St. Augustine. It is a broad navigable stream, frequently expanding into lakes. The largest of these, lake George, is 15 miles broad, and 15 or 20 feet deep. Vessels drawing 9 or 10 feet water may navigate the river as far as the head of the lake. There, as the river enters it, it forms a bar with only 8 feet water. It is ornamented with several charming islands, one of which is a mere orange grove, interspersed with magnolias and palm trees. Here are marks of a large town of the aborigines.

The Apalachicola falls into St. George's sound, the western part of Apalachy bay, by three mouths. The western is the main channel, and is in lat. 29 44 38 N.

The Coenecuh empties into the west end of Pensacola bay. It has been incorrectly called Escambia, but that is really a small tributary, falling into the Coenecuh from the west, 25 miles above the head of the bay. The Coenecuh rises in the Missisippi territory, in which it runs a considerable distance, and is navigable for small craft nearly to the line.

The Mobile is formed by the Alibama and Tombigbee, about 6 miles north of the boundary. These two rivers, after accompanying each other 3 miles, again separate. The western branch from thence to Mobile bay is called the Mobile. The Alibama retains its own name, until joined by some of its own waters which separated from it above the confluence with the Tombigbee. After this junction it is called the Tensaw, till it falls into the bay. The Tensaw falls into the northeast corner, and the Mobile into the northwest, about 12 miles apart. The navigation of both is excellent.

The Pascagoula rises in the Missisippi territory, and empties about 35 miles west of Mobile bay.

Pearl river empties into the northern outlet of lake Ponchartrain, 50 miles W. of the Pascagoula. Its banks are annually inundated for some distance north of the boundary. The navigation is much obstructed by logs of wood. The Ibberville is a *bayau*, or outlet, of the Missisippi, commencing 15 miles below Baton Rouge, and 121 above New-Orleans. It is navigable 3 months in the year, for boats drawing 5 feet water. For several months it is wholly dry. In the season of freshets the waters of the Missisippi flow through the Ibberville into lake Maurepas, and thence into lake

Ponchartrain. The Ibberville and these lakes are allowed by Spain to be the southern boundary of West-Florida.

Lakes. Lake Ponchartrain is a beautiful sheet of water, situated between the large island of Orleans on the south, and West-Florida on the north. It is about 35 miles long from east to west, and 25 broad; and, generally, 12 or 14 feet deep. It opens by several mouths into the bay of Espiritu Santo. The lake is chiefly surrounded with marshes.

Lake Maurepas, 12 miles long and 8 wide, receives the Ibberville at its W. end, and, by a short river or strait, about 5 miles in length, communicates at the E. end with lake Ponchartrain.

Bays. Apalachy bay is on the W. side of the peninsula of East-Florida, and the N. E. corner of the gulf of Mexico. It may be considered as setting up betweeen cape St. Blas on the N. W. and another cape on the S. E.; but its limits as a bay are not very distinctly marked. On the western side, a little N. E. of cape St. Blas, lie several islands in a chain parallel with the coast. The sheet of water between these islands and the main is called St. George's sound, after the name of the largest island; and stretches from S. W. to N. E. about 40 miles with a breadth of 6 or 8.

St. Joseph's bay a little to the W. is formed by a sand-bar which sets up in a N. N. W. direction, from cape St. Blas, about 20 miles. From the point of this bar the bay sets up in a S. S. E. direction about 15 miles.

St. Rose's bay opens into the gulf, between the E. end of St. Rose's island and a long sand bar which separates the bay from the gulf. It stretches eastward from the entrance upwards of 30 miles.

Pensacola bay is irregular in its shape and sets up northward about 25 miles. The mouth, at the W. end of St. Rose's island, is narrow, has 21 feet depth over the bar, and is protected by a fort on the point of the island.

The mouth of Perdido bay is about 8 miles farther W. The bay sets up a considerable distance, and has a very narrow entrance.

Mobile bay sets up due N. 30 miles between Dauphin island on the W. and Mobile point, the extremity of a long sand bar, on the E. The opening is about 5 miles across. The bay soon expands eastward to the breadth of 25 miles, which it retains about 12, and then suddenly contracting to that of 18, thence gradually narrows to its head, where it is only 12.

The Tensaw falls into the N. E. corner and the Mobile into the N. W. The water in the bay is too shoal for large shipping.

Hillsborough bay, on the W. coast of East-Florida, opens into the gulf in lat. 27 36 N. lon. 83° W. It is very capacious, and will admit any vessel drawing not more than 24 feet water.

Boca Grande or Charlotte harbor, on the same side of the peninsula, opens in lat. 26 43 N. and lon. 82 30 W. It has 15 feet water on the bar, and good anchorage.

The bay of Spiritu Santo is on the E. side of the mouth of the Missisippi. There is another bay of this name on the W. side of the peninsula, S. of Apalachy bay. It has a good harbor: but the

adjacent land is low. Charlotte harbor and Chatham bay are still farther south on the same side of the peninsula.

Mineralogy and Springs. Lime stone and iron ore are found on the banks of the Apalachicola. Near Long lake, which is 4 miles long and 2 wide, and which communicates with St. John's river by a small creek, is a vast fountain of warm, or rather hot mineral water, issuing from a bank on the river. It boils up with great force, forming immediately a vast circular bason, capacious enough for several shallops to ride in, and runs with rapidity into the river, three or four hundred yards distant. The water is perfectly clear; and the prodigious number and variety of fish in it, though many feet deep, appear as plainly as though lying on a table before your eyes. The water has a disagreeable taste and a smell like that of bilge water.

Islands. A string of islands and sand-bars lies all along the coast of West-Florida. Five of considerable extent, Dauphin, Massacre, Horn, Ship, and Cat islands, stretch from Mobile bay W. nearly to Pearl river. St. Rose's island is every where narrow, and reaches from Pensacola to St. Rose's bay about 45 miles. A narrow sound separates it from the main. St. George's island is 6 leagues long and of considerable breadth. These islands and the coast are in many places covered with forests of live oak.

VICEROYALTY OF MEXICO, OR NEW-SPAIN.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. PROVINCES. NAMES. HISTORY. ORIGINAL POPULATION. RELIGION. GOVERNMENT. POPULATION. ARMY. REVENUE. MANNERS. LANGUAGES. LITERATURE. CITIES AND TOWNS. ROADS. MANUFACTURES AND COMMERCE.

Extent. THE territories subject to the viceroy of Mexico extend, on the Pacific, from Puerto Santo Francisco,* in lat. 37 48 N. and lon. 122° W. to the boundary of Guatemala, in lat. 16 12 N. and lon. 94 15 W. On the gulf of Mexico, the northeastern limit is unsettled. On the part of Spain, the *Rio Mermentas* or *Mexicano*, emptying in lat. 29 37 N. and in lon. 93 12 W. is claimed to be the western boundary of Louisiana; while the United States insist, that Mexico extends no farther E. than the *Rio Bravo del Norte*, which falls into the gulf in lat. 25 50 N. lon. 97 30 W. The interval between these rivers is a tract of about 600 miles of sea coast. According to the evidence afforded by Humboldt, the real

* Cape Mendocino, in lat. 41° N. is claimed by Spain as the northern boundary of New-California; but Port St. Francis is the highest settlement.

line of separation between Mexico and Louisiana is the Rio Colorado,* which falls into the gulf in lat. 29 15 N. and lon. 97 10 W. The southern limit of the viceroyalty on the gulf we are not able exactly to ascertain, but suppose it to be on the eastern shore of Yucatan, in about lat. 15 30 N. The length of coast on the Pacific is upwards of 2600 miles. Its greatest breadth on its northern line is 960 miles; its least on its southern is 160 miles.

Boundaries. On the N. lie the unexplored countries of Northwestern America; on the E. Louisiana and the gulf of Mexico; on the S. E. the captaingeneralship of Guatemala; on the S. W. and W. the Pacific ocean.

Divisions. This viceroyalty, in 1776, was divided into 12 intendencies, and 3 provinces. They are arranged, as follows, into 3 classes, proceeding in each instance from N. to S.

	square leagues.	square miles.
I. Provinces of the western coast	54,691	418,933
1. Province of New-California	2,125	16,278
2. Province of Old-California	7,295	55,880
3. Intendency of Sonora	19,143	146,635
4. Intendency of Guadalaxara	9,612	73,628
5. Intendency of Valladolid	3,446	26,396
6. Intendency of Mexico	5,927	45,401
7. Intendency of Puebla	2,696	20,651
8. Intendency of Oaxaca	4,447	34,064
II. Provinces of the interior	25,848	197,995
9. Province of New-Mexico	5,709	43,731
10. Intendency of Durango	16,873	129,247
11. Intendency of Zacatecas	2,355	18,039
12. Intendency of Guanaxuato	911	6,978
III. Provinces of the eastern coast	37,939	290,613
13. Intendency of San Luis Potosi	27,821	213,109
14. Intendency of Vera Cruz	4,141	31,720
15. Intendency of Merida or Yucatan	5,977	45,784
Total	118,478	907,541

Previous to the year 1776 the country was subdivided as follows:

I. The kingdom of Mexico in the S. comprising the intendencies of
- Merida
- Oaxaca
- Vera Cruz
- Puebla
- Mexico
- Valladolid
- Guanaxuato
- Part of San Luis Potosi S. of the Santander

* Monsieur de la Salle, in 1683, planted a colony on the bay of St. Bernard, near the E bank of the Colorado, without having appeared to encroach on the rights of Spain. No settlement of France was ever planted W. of the Colorado and no Spanish settlement E of it. The acts of the parties appear to have concluded them. As the United States claim under France, they have only her rights. The Colorado must therefore be considered as the boundary.

II. Kingdom of New Gallicia on the Pacific, comprising	Guadalaxara Zacatecas	
III. Province of New-Santander on the gulf		These four are now included in the intendency of San Luis Potosi
IV. Kingdom of New-Leon, W. of the preceding		
V. Province of Texas on the gulf, N. of the river Nueces		
VI. Province of Cohahuila, W. of Texas and Santander		
VII. Province of New-Biscay		Intendency of Durango
VIII. Province of Sonora		Intendency of Sonora
IX. Province of New-Mexico		
X. Province of Old-California		
XI. Province of New-California		

As these divisions are still recognized in the country, and by most authors, it is necessary to mention them. Two grand divisions of the viceroyalty ought also to be mentioned. The northern part of the country, and far the most extensive, is called *gobierno militar*, or military government; and is governed by two brigadier generals. The jurisdiction of one of them extends over the intendencies of Sonora and New-Biscay, the provinces of New-Mexico and the two Californias; and that of the other over Cohahuila, Texas, and New-Santander, and the small kingdom of New-Leon. The river Santander, in lat. 23 45 N. is the southern limit of these governments on the gulf; and the river Rosario, in lat. 22 45 N. on the Pacific. All the territory S. of these rivers, and of a line between their sources, is under the more immediate jurisdiction of the viceroy.

The other division ascertains the limits of the jurisdictions of the two audiences within the limits of the viceroyalty. The audience of Mexico has jurisdiction of all the territory S. E. of a line commencing on the gulf, in lat. 22 30 N. 10 leagues N. of the river Tempico, passing a little S. of W. to the source of that river, along the eastern boundary of the intendency of Zacatecas, between Guanaxuato and Guadalaxara; and, from the E. end of lake Chapala, in a S. W. direction to the port of Guatlan, in lat. 19 45. All the country N. of this line is under the jurisdiction of the audience of Guadalaxara.

Provinces. A separate account of the larger and more remote provinces seems necessary, as they differ materially in many respects from the rest of the viceroyalty.

NEW-CALIFORNIA is in the N. W. It reaches from the bay of Todos los Santos, on the bay of All Saints, in lat. 32° N. to Puerto San Francisco, in lat. 37 48; or, as is claimed, to cape Mendocino, in 41° N. Humboldt says, that it is 78 geographical leagues, or 280 miles, from cape Mendocino to Port Francis; and 197 such leagues, or 690 miles, from Port Francis to the bay of All Saints; but the latitudes do not comport with so great an extent. The province reaches inland only 30 or 35 miles to the mountains of California.

Juan Rodriguez de Cabrillo sailed along the coast, as far as lat. 44° N. in 1542. Drake, in 1578, traversed it, from lat. 38 to 48. Two packet boats were sent, from San Blas, to explore the country,

in 1763. The first colonists arrived in 1769. They were chiefly missionaries, and the settlements are all denominated missions; and are under the direction of 36 monks of St. Francis. The progress of population may be learned from the following table:

	missions.	civilized Indians.
1776	8	
1790	11	7,748
1801		13,688
1802	18	15,562

Thirty years ago the natives were all wandering tribes, living by fishing and hunting. The northern part of the country is inhabited by two nations, called the Rumsen and the Escetan. Their languages are totally different from each other. The Indians farther south compose numerous tribes, and speak languages somewhat resembling the Aztec, or Mexican language.

Sans Carlos de Montery, the capital, was founded in 1770, at the foot of the Cordillera of Santo Lucia, and has a population of 700. San Diego, 52 miles from Old California, had a population of 1560, in 1802. The number of whites, mestizoes, and mulattoes, in 1802, in the whole province, was estimated at 1300. They live at the various military establishments, and none of them are allowed to settle in the country as colonists. The Indians of the missions manufacture coarse woolen stuffs called frisadas; but their principal occupation is the dressing of stag skins. The climate is much more mild than in the same latitudes on the eastern coast of the continent; but the sky is often foggy. Good wines are made all along the coast, to beyond 37° N. and olives grow thrifty in the southern part of the country. The cold winds from the N. sometimes prevent the fruits from ripening. The face of the country is agreeably diversified. Savannas of considerable extent lie between the coast and the mountains. These are the abodes of flocks of stags of a gigantic size. The Indians discover great address in taking them. The soil is very fertile and well watered. Wheat, maize, and haricots are abundantly cultivated; and barley, beans, lentils, and garbanzas grow plentifully in the fields. In 1791, the Indians had 24,958 beeves; and sowed only 874 fanegas of wheat, which yielded 15,197 fanegas. In 1802, they had 67,782 beeves, 107,172 sheep, 1040 hogs, 2187 horses, and 877 mules; and they then sowed 2089 fanegas of wheat, which yielded 33,576 fanegas.

The coast N. of cape Mendocino is called New-Albion by the English, as far as the lowest Russian settlement at Portlock harbor, between lat. 58° and 59° N. and has heretofore been claimed by them. Within the above limits, an American colony has recently commenced an establishment at the mouth of Columbia river.

Old California is the peninsula, extending from the bay of All Saints, in lat. 32° N. and 116° W. to cape St. Lucas, in lat. 22 48 N. and lon. 110° W. The gulf of California lies on the E. and New California on the N. Grixalva, in the employ of Cortes, discovered it to be a peninsula, in 1534. Cortes explored it, to some extent, in 1535. The Jesuits made the first solid establishments in 1742; though the village of Loretto was founded as early as 1697.

Since the expulsion of the Jesuits in 1767, the missions have been confided to the Dominican monks at Mexico. The origin of the word *California* we know not.

Three nations of Indians, according to Venegas, inhabit the peninsula; the Pericues in the S; the Monquis in the middle; and the Cochimis, in the N. These three nations speak three distinct languages. The Guaycurras and Uchitis, on the E. coast of the peninsula, are Monqui tribes, speaking different dialects of that language. The Cochimis in the time of Venegas, possessed more than half of the peninsula. Some of them were also found on the opposite shore, in the province of Sonora. All these Indians have a swarthy complexion, but are comely in their forms and features. They are generally robust, vigorous, and healthy. They paint their faces, and wear ornaments in their ears and nostrils. A very particular account of them may be seen in Venegas.

The population has diminished greatly in the last 35 years. This has been owing to the smallpox, and to the syphilis. The number of missions in 1808 was only 16, and that of the Indian cultivation did not exceed 4000. The Cochimis are still chiefly savages, and are numerous.

The village of Loretto is near the E. coast, in about lat. 26 10 N. and was founded by father Kuno in 1697 Santa Anna is another village on the same coast, in lat. 24°. San Joseph is a village near the W. coast, in lat. 26 15.

The sky is almost constantly serene and without a cloud. The temperature is mild, and sufficiently warm for most tropical fruits. A chain of mountains, called the Cordillera of California, runs through the centre of the peninsula. Its highest summit, the Cerro de Giganta, is from 4600 to 4900 feet high. The mountains E. of New-California, are merely a continuation of this chain. At the foot of the mountains the soil is a mere sand on a strong stratum. This sand continues on both sides to the shores. A few spots are found covered with vegetable earth, but in most of these, there is an extreme want of water. Wherever springs and earth happen to be together, the fertility of the soil is astonishing. In these spots the Jesuits planted their first missions. The peninsula can never support but a scanty population.

The pearl fishery on the eastern coast long constituted the principal value of the province. The shell, which produces the pearl, is chiefly found on the isles of Santa Cruz, San Jose, and Ceralve, in the gulf, between lat. 24 30 and 25 30 N. The pearls are large, and of a very beautiful water, but often of an irregular figure. For some years, the produce of the fishery has been small; but the pearls are still said to be abundant. The Cordillera abounds in an animal resembling the mouflon of Sardinia.

The Intendency of Sonora reaches along the western coast more than 900 miles; from the Rio Rosario, in lat. 22 30 N. to the Colorado, which falls into the head of the gulf, in lat. 33°. Its breadth, to the 28th degree of latitude, rarely exceeds 170 miles. Beyond, it widens to 450. The northern part is called Pimeria, from the Pimas, a numerous nation of Indians. An extensive tract

N. between them and the Rio Gila, is still independent. No permanent communication has hitherto been opened between Sonora and New-California on the N. W. or New-Mexico on the E. The number of tributary Indians, in 1793, amounted to 2102. The tribes on the coast, near the head of the gulf, are more civilized than most independent Indians. In their manners they are mild and gentle. They plant maize, cotton, and gourds; live in regular villages; and carry on various manufactures. This is said, by Humboldt, to be the character of all the tribes between lat. 33° and 54° N. The Seris, however, on the right bank of the Ascension, are brave and warlike.

New-Mexico reaches from lat. 31° to 38°, is about 500 miles long, and from 100 to 170 broad. It is a fertile territory, thinly inhabited, along the Rio Bravo. The country, E. and W. of it, throughout its whole extent, is entirely unreclaimed. This province was peopled by the Spaniards towards the end of the 16th century; yet a desert tract of considerable extent, between it and the intendency of Durango, called the desert of Muerto, is still occupied by the Cumanches, who are very brave and ferocious, and render travelling, from one province to the other, unsafe. Thus the province is wholly insulated. The Indians also, to the east of the province, carry on a perpetual warfare with the inhabitants, who are compelled, on this account, to live almost wholly in the cities and towns. The Moquis are a powerful nation to the W. on the eastern branches of Colorado. Father Garces, in 1773, visited a large Moqui town, with streets well laid out, crossing each other at right angles, with two great squares, and the houses of several stories.

Durango, or New-Biscay, lies E. of Sonora, between lat. 24° and 32° N. On the S. E. it touches for a short distance on San Luis Potosi. The Bolson de Mapimi and the Rio Bravo constitute the rest of its eastern boundary. The Bolson de Mapimi is an extensive tract occupied by the Acoclames, and Cocoymes. A tract, equally extensive, between the Puerco and the Bravo, is occupied by the Apachos-Mescaleros and Fardones. The Cumanches, and Chichimecs, occupy the desert of Muerto. The Apaches-Mimbrenos are farther to the west. These tribes are all wild and warlike. The great table land of Mexico, or Anahuac, terminates in this intendency, declining to the N. E. towards the Bravo.

San Luis de Potosi reaches along the coast of the gulf of Mexico from the mouth of the Tempico to the boundaries of Louisiana. If the Mexicano be considered as the boundary, it has more than 900 miles of sea-coast. Its breadth in the E. and also in the S. does not exceed 180 miles; but, for a length of more than 400 miles in the middle, it has a breadth of 500. The Bolson de Mapimi, and other unreclaimed regions, limit it to the W. and N. beyond the parallel of 26°. The coast, between the Bravo and Mexicano, is almost wholly unexplored, and no good harbor is known in the whole extent. The Spaniards have no settlements E. of the Colorado.

Yucatan, in the S. E. is a large peninsula, between the bay of

Campeachy and the bay of Honduras. A ridge of mountains runs through it from S. W. to N. E. The Spanish settlements lie W. of the mountains. The English have settlements on the eastern coast of considerable extent in a fertile country. The boundary between the viceroyalty of Mexico and the captaingencraiship of Guatemala, commences, on the Pacific, at the Barra de Tomala, about 15 leagues E. from Tehuantepec; and passes to the N. E. at no great distance N. of Chiapa and Civdad Real, till it strikes the Pacific. The intendency of Merida thus comprises the northern, and far the greater part of the peninsula of Yucatan. A small part of it in the S. E. belongs to the province of Vera Pas in Guatemala.

Names. According to Humboldt, all the country between lat. 14° and 21° N. was called, before the Spanish conquest, *Anahuac.* The name *Mexico* was applied by the Indians only to the city, and signifies, in the *Aztec* language, *the habitation of the god of war.*

History. The empire of Mexico was subdued by Cortez, in the year 1521. Montezuma was at that time the emperor. In the course of the war, he was treacherously taken by Cortez, and held as a prisoner. During the imprisonment of Montezuma, Cortez and his army had made repeated attacks on his subjects, but without success. Cortez was now determined, as his last resource, to try what effect the interposition of Montezuma might have to soothe or overawe his subjects. This unfortunate prince, at the mercy of the treacherous Spaniards, and reduced to the sad necessity of becoming the instrument of his own disgrace, and of the slavery of his subjects, advanced to the battlements in his royal robes, in all the pomp in which he used to appear on solemn occasions. At sight of their sovereign, whom they had long been accustomed to honor, and almost to revere as a god, the weapons dropped from their hands, every tongue was silent, all bowed their heads, and many prostrated themselves on the ground. Montezuma addressed them with every argument that could mitigate their rage, or persuade them from hostilities. When he ended his discourse, a sullen murmur of disapprobation ran through the crowd; to this succeeded reproaches and threats; their fury rising in a moment, they violently poured in whole flights of arrows and vollies of stones upon their unhappy monarch; two of the arrows struck him in his body, which, with the blow of a stone on his temple, put an end to his life. Guatimozin succeeded Montezuma, and maintained a vigorous opposition against the assaults of Cortez. But he, like his predecessor, after a noble defence, was forced to submit.

The ancestors of the Mexicans, according to their traditions, consisted of several savage tribes, who, about the 10th, or 11th century of the Christian era, moved in successive migrations from unknown regions to the N. and N. W. and settled in Anahuac.* About the beginning of the 13th century, a tribe, more polished than the rest, advanced from the borders of the Californian gulf and took possession of the plains adjacent to the great lake, near the centre of the country.†

* Robertson. † Clavigero.

The peninsula of California was discovered by Cortez, in 1536, after enduring incredible hardships, and encountering dangers of almost every species. During a long period it continued to be so little frequented, that even its form was unknown, and in most maps it was represented as an island. Sir Francis Drake was the first who took possession of it, in 1578, and his right was confirmed by the principal king or chief in the whole country.

New-Mexico was discovered by a missionary, in 1581, but was not subdued till 1644. The missions were established here in 1660. The capital of Santa Fe was founded in 1682.

The countries of Cinaloa and Sonora, on the E. side of the gulf of California, as well as the immense provinces of New-Navarre, and others of New-Mexico, all which are thinly inhabited, never were subject to the Mexican sceptre, but now acknowledge the power of Spain.

In 1765 a war commenced between the Spaniards and natives, which ended in 1771, in the submission of the latter.

The late revolutionary movements in Mexico and South-America form a new and interesting epoch in their history, of which, as they relate to Mexico, particularly, we have no specific information.

Original Population. Various tribes originally inhabited this extensive country. Those in the centre were more civilized than those in the north and south. The origin of the Mexicans is involved in great obscurity. According to Clavigero, the ancestors of the nations which peopled *Anahuac*, (now called *New-Spain*) might pass from the northern countries of Europe into the northern parts of America, or which is more probable, from the most eastern parts of Asia, to the most western parts of America. This conclusion is founded on the constant and general tradition of those nations, which unanimously say, that their ancestors came into Anahuac from the countries of the north and northwest. This tradition is confirmed by the remains of many ancient edifices, built by those people in their migrations. In a journey made by the Spaniards in 1606, from New-Mexico to the river which they call *Tizon*, 600 miles from that province towards the northwest, they found there some large edifices, and met with some Indians who spoke the Mexican language, and who told them, that a few days journey from that river towards the N. was the kingdom of Tollan, and many other inhabited places, whence the Mexicans migrated. In fact, the whole people of Anahuac have usually affirmed, that towards the N. were the kingdoms and provinces of Tollan, Aztlan, Copalla, and several others, which have all Mexican names. Boturini says, that in the ancient paintings of the Toltecas was represented the migration of their ancestors through Asia and the northern countries of America, until they established themselves in the country of Tollan; and even endeavors to ascertain, in his general history, the route they pursued in their travels.

Religion. The church of Mexico is placed under the care of an archbishop, whose appropriate diocese is the intendency of Mexico, and 8 bishops. The following is a list of the dioceses, and the stated revenue of each:

	double piastres.		double piastres.
Mexico	130,000	Monteroy	30,000
Puebla	110,000	Yucatan	20,000
Valladolid	100,000	Oaxaca	18,000
Guadalaxara	90,000	Sonora	6,000
Durango	35,000		
		Total	539,000*

The number of Mexican clergy is about 10,000, the half of whom are regulars, who wear the cowl. If lay brothers and sisters or servants are included, they may all be estimated at 13,000 or 14,000. The lands of the Mexican clergy amount to 500,000*l.* or 600,000*l.* sterling; and the capitals of the religious communities, secured on mortgage, to 44,500,000 double piastres.

Government. The jurisdiction of the viceroy extends over the whole country, but is more immediately confined to the southern intendencies. The limits of the jurisdictions of the two audiences have already been stated; as have those of the two brigadier generals in the north. The intendencies are each committed to an intendant. The provinces of New-Mexico and the two Californias have no intendants, and are left to the immediate management of the missionaries.

Population. Only one census has ever been taken of the inhabitants of this viceroyalty. This was under the administration of count Revillagigedo, in 1793. Like similar enumerations, in the other Spanish colonies, it fell far short of the truth: Humboldt says at least one sixth. The following table contains the result of the census of 1793; also Humboldt's estimate of the population in 1803, founded on that census, on the known omissions, for which only one tenth is allowed, and on the natural increase, calculated from the proportion between the number of births and deaths:

Intendencies.	1793	1803	Principal towns.	Inhab. in 1803.
New-California }	12,666	15,600	Monteroy	700
Old-California }		9,000	Loretto	
Sonora	93,396	121,400	Culiacan	10,800
New-Mexico	30,953	40,200	Taas	8,900
Durango	122,866	159,700	Durango	12,000
San Luis Potosi	255,280	334,900	San Luis Potosi	12,000
Zacatecas	118,027	153,300	Zacatecas	33,000
Guadalaxara	485,000	630,500	Guadalaxara	19,500
Valladolid	289,314	376,400	Valladolid	18,000
Guanaxuato	397,924	517,300	Guanaxuato	70,600
Mexico	1,162,286	1,511,800	Mexico	137,000
Puebla	625,620	813,300	Puebla	67,800
Vera Cruz	120,000	156,000	Vera Cruz	16,000
Oaxaca	411,366	534,800	Oaxaca	24,000
Merida	358,261	465,800	Merida	10,000
Total	4,483,529	5,840,000		

* 112,300*l.* sterling.

Grounding his calculations on the excess of births over deaths, Humboldt supposes the population in 1808 exceeded 6,500,000.

Army. We have no authentic information of the number or condition of the military force of this part of the Spanish dominions. We have reason to conclude, however, from various circumstances, that it is neither numerous nor formidable, compared with the population or extent of the country.

Revenue. Mexico, according to Dr. Robertson, yields to Spain a revenue, including expences, which are great, of 1,000,000*l.* sterling; more recent accounts state the whole revenue derived by Spain, from America and the Philippine isles, at 2,700,000*l.* sterl. The king's fifth of the mines of New-Spain have been stated at 2,000,000*l.* but this is probably exaggerated.

Manners. Of the ancient inhabitants of this country Dr. Robertson has given us the following character. "When compared with other parts of the new world, Mexico and Peru may be considered as polished states. Instead of small, independent, hostile tribes, struggling for subsistence amidst woods and marshes, strangers to industry and arts, unacquainted with subordination, and almost without the appearance of regular government, we find countries of great extent, subjected to the dominion of one sovereign, the inhabitants collected together in cities, the wisdom and foresight of rulers employed in providing for the maintenance and security of the people, the empire of laws in some measure established, the authority of religion recognized, many of the arts essential to life brought to some degree of maturity, and the dawn of such as are ornamental beginning to appear."

Of the modern manners of this mixed people no traveller or historian has given us much authentic information.

Languages. The number of native languages exceeds 20. Of these 14 have grammars and dictionaries tolerably complete. Their names are the *Aztec*, or proper *Mexican*, the *Otomite*, the *Tarasc*, the *Zapotec*, the *Mistec*, the *Maye*, or *Yucatan*, the *Totonac*, the *Popoluc*, the *Matlazing*, the *Huastec*, the *Mixed*, the *Caquiquel*, the *Taraumar*, the *Tepehuan*, and the *Cora*. Humboldt says that most of these languages are as different as the Greek and German, or the French and Polish. This is the case with at least 7. The *Aztec*, of which there exist 11 printed grammars, is at present most widely diffused, and extends from lake Nicaragua, in Guatemala, to lat. 37° N. more than 400 marine leagues. The *Otomite*, next to this, is the most extensive.

Literature. In the Spanish settlements are a number of valuable institutions for the education of the aborigines. There are also several colleges and universities, but the fanatical and sectarian spirit of their instructors render them of little value.

Cities and Towns. MEXICO, the largest town in Spanish America, is situated in the valley of Mexico, in lat. 19 25 45 N. and lon. 99 5 30 W. The centre of the town is nearly 3 miles W. of the shore of lake Tezcuco. Humboldt dates its foundation in 1325. The streets run nearly from N. to S. and from E. to W. and are long, broad, and regular. Most of them are paved, and all are

clean, and well lighted. The site of the town is almost an uniform level; and it forms a great square, of which each side is about 3000 yards. The architecture is of a very pure style, and some of the edifices are beautiful. The exterior of the houses is not loaded with ornaments. Instead of roofs they have terraces; and the balustrades are all of Biscay iron. The objects here, particularly calculated to strike a traveller's attention, are the cathedral; the treasury; the convents, of which 23 are monasteries, and 15 nunneries; the hospital, which maintains 1400 paupers, with a revenue of 10,470*l.* sterling; the acordada, a collection of prisons; the school of mines, with its collections in physics, mechanics, and mineralogy; the university and public library, the buildings of which are unworthy so ancient an establishment; the academy of fine arts; and the large equestrian statue of Charles IV. The census of 1790, gave a population of 112,926, but fell considerably short of the actual number. Humboldt estimated it at 137,000, consisting of 2500 Europeans, 65,000 creoles, 33,000 Indians, 26,500 mestizoes, and 10,000 mulattoes. The market is richly supplied. Most of the vegetables sold in it, are raised on the floating gardens in the lake of Tezcuco. The city is supplied with water by two aqueducts. That of Shapoltepec is more than 2 miles long, and enters the city on the S. That of Santa Fe is more than 6 miles in length, and is far the purest

Puebla stands in lat. 19° N. and lon. 98° W. in the plain of Acaxete, at an elevation of 7380 feet above the level of the ocean. Its population, according to Humboldt's estimate, is 67,800. It is about 30 leagues E. S. E. of Mexico.

Guanaxuato was founded in 1554, and stands about 50 leagues N. W. of Mexico. Its elevation is 6836 feet above the ocean. The population, according to Humboldt, is 41,000 within the city, and 29,600 in the mines surrounding it, of whom 4500 are Indians: total 70,600,

Zacatecas lies more than 100 leagues N. N. W. of Mexico, and contains, according to Humboldt, 33,000 inhabitants.

Oaxaca lies near the E. bank of the Rio Verde, about 80 leagues S. S. E. of Mexico, and contains 24,000 inhabitants.

Acapulco is on the Pacific, in lat. 16 50 20 N. and in lon. 99 46 W. Its port is the best on the western coast. The town was formerly large and populous, while the trade by the galleons continued. Its steady population does not now exceed 4000, and they are chiefly mulattoes.

Vera Cruz is on the gulf of Mexico, in lat. 19 11 52 N. and lon. 96 9 W. The city is beautifully and regularly built, and inhabited by well informed merchants. It stands in an arid plain, destitute of running water; on which N. winds, that blow impetuously from October till April, have formed hills of moving sand. The continued population is about 16,000. The fortress of San Juan de Ulloa, on an island near the town, cost 8,334,000*l.* sterling.

Monterey, the capital of the two Californias, and the residence of their governor, is a mere hamlet, with a dangerous harbor. It was founded in 1770.

St. Leon and Granada are both situated on lake Nicaragua, where the Andes are said to terminate.

Santa Fe is remarkable as the most northern town of any note in New-Mexico. A bishop and provincial governor reside here.

Roads. A road was long since opened, from Louisiana to Mexico, by the inhabitants of the former territory; who went to purchase horses in the interior provinces. According to Humboldt, it is 540 geographical leagues, or 1920 miles long, equal to the distance of Madrid from Warsaw. From Mexico it passes through Queretaro, San Luis Potosi, Charcas, Saltillo, Loredo on the banks of the Bravo, Bejar, Chichi, the Adayes, fort Claiborne, and Nachitoches.

A carriage may pass from Chihuahua, in lat. 28 45, to Santa Fe, in lat. 36 15. A sort of caleche is generally used. The road is beautiful and level, and passes along the eastern bank of the Bravo, crossing it at the Passo del Norte. The banks of the river are very picturesque, and are adorned with beautiful poplars and other trees peculiar to the temperate zone.

A courier goes on horseback from Guatemala to Mexico, and thence, through Guadalaxara and Real de Rosario, to Santa Cruz, at the mouth of the Mayo. Here he crosses the gulf, and disembarks at Loretto. From this village letters are sent from mission to mission, to Monteroy and Port St. Francis. They thus traverse a route of more than 920 geographical leagues, or 3100 miles; equal to the distance of Lisbon from Cherson.

Manufactures and Commerce. "New-Spain is singularly distinguished by the multitude and variety of its productions, in all the three reigns of nature, animal, vegetable, and mineral. This abundance of natural productions perhaps contributes to the neglect of manufactures. Even metallurgy is but poorly conducted. Cochineal and cocoa,* with a little silk and cotton, form articles of export; but the chief are gold, silver, and precious stones. There was a celebrated fair at Acapulco, on the annual arrival of the ships from Peru and Chili, after which the noted galleon, laden with the wealth of America, pursued her course to Manilla. Other arrangements are now followed, and smaller vessels employed. The galleons were laid aside in 1748; and the late Spanish monarch instituted commercial regulations on a more liberal plan. In 1764 monthly packets were established between Corunna and Havanna, whence smaller vessels pass to Vera Cruz, and to Porto Bello, in South-America; and an interchange of productions by these vessels is also permitted. In the following year the trade to Cuba was laid open to all Spain; and the privilege was afterwards extended to Louisiana and the provinces of Yucatan and Campeachy. In 1774, free intercourse was permitted between the three viceroyalties of Mexico, Peru, and New-Granada. The courts of justice were also reformed, and a fourth viceroyalty was established, 1776, on Rio de la Plata. By a strange policy a free trade is permitted be-

* Chocolate is said to have been a Mexican liquor, and the best nuts are those of Guatemala.

tween New-Spain and the Philippines, which adds considerably to the wealth of the former country. The English trade in the bay of Honduras may now be considered as terminated, the logwood on the opposite side of Yucatan being found to be of superior quality."*

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. MOUNTAINS. BOTANY. MINERALOGY.

Climate. ONLY two seasons are known in the tropical regions of Mexico, even as far as lat. 28° N.; the rainy season of four months, which commences in June or July, and ends in September, or October; and the dry season of eight months, which lasts from October to May. The first rains commence on the eastern coast, and are accompanied with strong electrical explosions. They begin at Vera Cruz 15 or 20 days sooner than on the central table land; and there, sooner than on the Pacific. The most rains fall on the highlands. The low plains only, on the coast possess a warm climate, adapted to all the productions of the West-Indies. The mean temperature of these regions, which the Spaniards call Tierras Calientes, is 77° of Fahrenheit. The climate here is very unhealthy to Europeans, who perish in great numbers by the yellow fever. Cold winds occasionally prevail, however, on the eastern coast, from October to March; and frequently cool the air at Vera Cruz to 60°. The peninsula of Yucatan, though one of the warmest, is one of the healthiest districts in equinoctial America. This is owing to the extreme dryness of its air. On the declivity of the Cordillera, at the elevation of 4000 or 5000 feet, there reigns perpetually a soft spring temperature, which never varies more than 8 or 9 degrees. This is called the Tierras Templadas, and the mercury here usually stands at 68 or 70. This region is extremely salubrious, but is often enveloped in thick fogs. At the elevation of about 7000 feet, commences another zone, called Tierras Frias; the mean temperatue of which is about 60°. Mexico is in this region, and the thermometer has there been known in a few instances, to descend below the freezing point. In the coldest season, the mean heat of the day, in this region, is from 55° to 56°. In summer, the thermometer never rises above 75°. The mean temperature of the whole table land of Mexico is 62°. There are some plains in the table land elevated still higher. Thus the plains of Tolucca and Guchilaque, exceed 8000 feet in height. Here, during a great part of the day, the mercury does not rise above 45° or 46°.

Face of the Country. The lands on both coasts, are low grounds, intersected with very inconsiderable hills. In the south, these tracts

* Pinkerton.

are narrow, but wider on the west, than on the east. Farther north, near the borders of San Luis Potosi and Guadalaxara, the low country widens; and above the parallel of lat. 24°, is of very considerable breadth. Merida, or the peninsula of Yucatan, is chiefly of this description; however, a chain of hills of small elevation intersects it from S. W. to N. E. The whole of Vera Cruz is level, and all of it low, except the high plain between Perote and the Pic d' Orizaba. New-Santander, New-Leon, Cohauila, and Texas, are almost universally plains of small elevation. In Guadalaxara and Sonora on the W. there is also a broad tract of low ground between the sea and the mountains. In old California the level land is narrow on both coasts; and New-California is only a narrow plain W. of the mountains.

The Cordillera in Mexico does not, like most other ranges of mountains, consist of a narrow ridge, or of several such ridges parallel with each other, with vallies between them; but it is many leagues in breadth, and the top is a broad plain, or table land, from 6000 to 8000 or 9000 feet above the level of the ocean. Humboldt has given us in his travels three perpendicular sections of the table land of Mexico. These are undoubtedly drawn with great accuracy, being the result of barometrical observations in 208 different places. One section is of the country from Mexico to Vera Cruz, a distance in a direct line of 296 miles, and almost due E. and W. For 14 miles from Vera Cruz, the country is nearly a perfect level to La Antigua. There it begins to ascend very gradually, and in 24 miles gains an elevation of 1000 feet. The ascent there becomes very rapid, and continues so during the next 45 miles, where the elevation is 7800 feet. This is a little above the common level of the road. The elevation is however every where above 7000 feet, and varies but little from a level, except at El Pinal, as far as St. Martin's. There the land suddenly rises to the height of 8200 feet, and thence continues a plain for 15 miles to Tesmahuos. Here commences an ascent over the highest hill on the road. In a level distance of about 15 miles the surface gains the height of 10,380 feet. Thence the descent is rapid; and at Chalco, 15 horizontal miles farther, the elevation of the road is only 7640 feet. From Chalco to Mexico, a distance of 20 miles, there is an almost imperceptible descent. The elevation of Mexico is about 7400 feet.

Another section is of the central table land, from La Cruz, in lat. 9° to Monte del Gigante, in 21° N.; passing through the capital. In this distance, the elevation no where sinks below 6000 feet, and except three places, La Cruz, Monte del Calpulalpani, and Monte del Gigante, above the level of the capital.

A third section exhibits the elevation of the road from Mexico to Acapulco. The distance in a straight line, is 254 miles, and the direction S. 14° W. From Mexico to La Cruz, a horizontal distance of 23 miles, the road constantly ascends, and the height of that town is 9735 feet. Guchilaque, 10 horizontal miles farther, is 7935; and Cuernavaca, only 7 miles farther, is but 5377. Thence there is a gradual descent, for 77 such miles, to Mescala, which is but 1680 feet above the level of the ocean. Here the road again

rises, and at Chilpasingo, attains an elevation of 4480. Thence it descends, but with some interruptions, to the valley of Papagayo, where it is only 620 feet high, and a little beyond, in the valley of Peregrino, is but 520; though between these, it passes over a sharp pitch more than 1100 feet high. Beyond the valley of Peregrino it attains an elevation of 1450 feet, and continues nearly of this height about 20 miles. A little beyond Exido, commences a steep descent, which, in a horizontal distance of 8 miles, reaches the level of Acapulco. Much the greater part of the road between Mexico and Acapulco is elevated but little more than 3000 feet above the level of the ocean; while that between Mexico and Vera Cruz is, almost the whole distance, above 7500. Notwithstanding this, Mexico is nearly in the centre of the table land; and this difference, in the general elevation of the two roads, is owing merely to the difference of their direction.

The table land commences in the eastern part of Oaxaca, and passes in a N. W. direction, through the centre of the country; gradually descending in the intendency of Durango, to the level of the valley of the Bravo. The city of Durango is 6560 feet high. Humboldt has given but few data to determine its breadth. From the capital eastward to its brow, is more than 200 miles. This distance is, however, longer than a line perpendicular to the general course of the table land.

The *valley of Mexico* is about 230 miles in circumference, and has an elevation of about 7400 feet. The lake of Tezcuco is nearly in its centre. The length of the valley, from the southern shore of lake Chalco, in a N.W. direction to the Cerro de Sincoque, is 65 miles; and its breadth 43. The mountains which surround it are of considerable elevation above it. Many such vallies, but generally of a smaller size, are found scattered over the top of the table land.

Soil and Agriculture. The soil of the table land is remarkably productive. Though exposed to droughts in the spring, its annual produce exceeds that of most countries on the globe. A severe drought however almost destroys the fruits of the earth. Maize is far the most important object of agriculture, and the year in which the maize harvest fails, is a year of famine for Mexico. This plant was received by the old continent from the new, and in the *Mexican* language was called thaolli; and in the *Arrowauk*, mahiz. It grows on all the table land, except some of the highest plains, and acquires a height of from 6 to 10 feet. The rich plain between San Juan del Rio and Queretaro, yields 800 fold; and fertile lands generally from 300 to 400. Humboldt estimates the common produce at 150 fold. In the most warm and humid regions it will yield from two to three harvests annually, but generally only one is taken. It is planted from the middle of June, to the end of August. The common annual produce of the whole of Mexico, is estimated by Humboldt at 17 million fanegas, or 1765⅓ million pounds, avoirdupois. The Indians make out of maize a spiritous drink, called Chica. Before the conquest, they pressed out the juice of the stalk for sugar. Wheat, rye, and barley are extensively cultivated.

Humboldt estimates the produce in the equinoctial region at 24 for 1. In this region, however, these grains, though they grow vigorously, do not produce the ear, at a less elevation of the land, than 2600, or 3000 feet. Rye and barley are cultivated in the highest regions. The best climate for wheat, is found to be the annual average of 64,° or 65°. Humboldt estimates the common wheat harvest at 220$\frac{1}{2}$ millions of pounds, avoirdupois. Oats are very little cultivated. The *banana* of Mexico, called the *platano-arton*, probably yields more nutriment on a given spot of ground, than any other vegetable. In the best lands, the fruit grows sometimes from 11 to 12 inches in length, and often from 8 to 9. In such soils, a cluster of bananas will contain from 160 to 180 fruits, weighing from 60 to 90 pounds. The plant is cultivated by suckers. In 8 or 9 months, the clusters begin to develop, and the fruit may be collected in the 10th or 11th. After the fruit is plucked, the old stalk is removed, and a new one springs up spontaneously. A spot of ground of 100 square metres, (1076 square feet) may contain from 30 to 40 plants. In one year the produce will exceed 4400 pounds of fruit.

Two species of the *juca* (out of whose root the *maniac* bread is made) are cultivated, the *sweet* and the *bitter*; but they will not grow at a greater height than 2000 or 2500 feet above the level of the ocean. This bread is remarkably nutritive. The juca is cultivated like the potatoe, and is ripe in 8 months.

The Mexicans now possess all the garden stuffs and fruits of Europe. Onions, leeks, garlic, haricots, cresses, and artichokes, were indigenous. The central table land produces in the greatest abundance, cherries, prunes, peaches, apricots, figs, grapes, melons, apples, and pears. The fine native fruits are the anana or pine apple, tasconia, or sapote, mameis, guava, chilimoya, and anona.

Rivers. The Rio Bravo del Norte, has heretofore been described, but its length is incorrectly stated. Humboldt says, that it is 512 marine leagues; or 1792 miles. It has its annual freshets like the Missisippi. The waters begin to swell in April, are at their height in May, and fall towards the end of June. The *Passo del Norte*, is a village planted at the place, where the road from Chihuahua to Santa Fe intersects the Bravo. In 1752 the whole bed of the river, for more than 30 leagues above, and 20 below the Passo, became suddenly dry. The water precipitated itself into a newly formed chasm, and reappeared near San Eleazario. After a lapse of several weeks, it resumed its ancient course. The Choncos is a large branch from the W. running, according to the map of Humboldt, about 400 miles, and emptying at the Presidio del Norte, in lat. 30 30 N. The Puerco is somewhat longer, and flows nearly parallel with the Bravo, emptying in lat. 30°. Its waters are remarkably muddy.

The Colorado of California has also been described. The Gila, its largest tributary, rises, according to Humboldt's map, in the Cordillera; and runs a little S. of W. about 600 miles, falling into the Colorado, near its mouth.

The other Colorado is but little known. It is a long and large river, running probably about 700 or 800 miles in an E. or S. di-

rection, and emptying into the N. W. corner of the gulf of Mexico, in lat. 29 15 N.

The Rio de las Nueces is a large stream N. E. of the Bravo, and parallel with it.

The river Tula, or Montezuma, under the name of Guautillan, rises in the Cordillera, which skirts the valley of Mexico on the W. It runs in the valley about 30 miles; the first 20 in a N. E. and the last 10 in a N. N. W. direction. Just at the bend, it passes about a mile W. of lake Zumpango, and leaves the valley at the N. W. corner, passing between the Cerro de Sincoque, on the W. and the Loma of Nochistongo, on the E. Continuing the same course to lat. 20, it there bends a little to the E.; and at length, being joined by the Panuco, takes the name of Rio Tempico. It is the largest river of the eastern coast S. of the Bravo.

The river Santiabo issues from the little lake of Lorma, 20 miles S. W. of Mexico without the valley, and at the foot of the range that skirts it on the W. After a course of 250 miles, in which it is called Rio Larma, it enters the E. end of lake Chapala. This it leaves again on the N. side, at the distance of about 30 miles from its entrance; and taking the name of Rio Santiago, runs W. N. W. and S. W. about 400 miles farther. It enters the Pacific by a broad mouth in lat. 21 30 N.

The Zacatula is a stream of considerable length in the intendency of Mexico. The Culiacan, Mayo, and Hiaqui are the largest rivers of Sonora.

Lakes. Lake Chapala is far the largest in Mexico. It lies W. by N. of the capital, just above the latitude of 20°; covering, according to Humboldt, nearly 160 square marine leagues, or 1225 square miles; and, by his map, is about 90 miles long, and 20 broad.

There are four lakes in the valley of Mexico. The lake of Chalco, at the southern extremity of the valley, covers 50 square miles. The body of the lake is separated by a dike from a long narrow arm at the N. W. called the lake of Xochimilco. The water of the lake has no outlet, and its surface is 39 inches higher than the Plaza Mayor of the capital, from which the extremity of Xochimilco is not above 4¼ miles distant.

The lake of Tezcuco, as well as the other three, was formerly much larger than it is at present. It lies N. of the Chalco, about 4 miles from it; and is 14 miles long from S. S. W. to N. N. E. and 8 broad, containing 77 square miles. Its actual bounds are not very well determined; the soil being so argillaceous and smooth, that the difference of level in the shore for a mile is not more than 8 inches. When the E. wind blows with any violence, the water withdraws towards the western bank, leaving an extent of more than 3 furlongs dry. The Plaza Mayor, at the S. corner of the Viceroy's palace, is only 4 feet above the level of the lake. In general the water is only from 9 to 16 feet deep, and in some places less than 3. It contains muriat and carbonat of soda. The floating gardens on its surface are probably the most elegant exertion of horticulture.

The lake of San Christoval lies less than a mile N. N. W. of

Tezcuco, and covers 27½ square miles. Its length from N. to S. is 10 miles. Its surface is 11 feet 8 inches above lake Tezcuco.

Lake Zumpango, N. W. of San Christoval, and 3 miles from it, covers a surface of 10 square miles, and is 29 feet higher than Tezcuco. The Rio Guautillan, the present source of the Montezuma, formerly emptied into this lake, but to prevent inundations, its course was diverted out of the valley. The city of Mexico formerly suffered severely from the rising of the water in these lakes. In 1446, it was completely inundated. To prevent a similar evil, Montezuma I. a short time after, ordered a dike to be constructed of stones and clay, supported on each side by a range of palisadoes. This dike was about 70 miles in length, and 65 feet broad. Five great inundations have happened since the arrival of the Spaniards. In each of these, the Zumpango, swelled by the Rio Guautillan, flowed over into the San Christoval. The San Christoval thus enlarged, broke down the dike that separated it from the Tezcuco; and the Tezcuco flowed with impetuosity into the streets of Mexico. After the fourth inundation, in 1607, Henry Martinez, an able engineer, was employed by the viceroy to prevent a repetition of the calamity. Martinez proposed to turn the waters of Rio Guautillan and the lake Zumpango out of the valley. On the 28th of November, 1607, a subterraneous gallery was begun under the gap of the Cordillera, on the N. W. corner of the valley. Fifteen thousand Indians were employed at the work, and in eleven months it was completed. It was more than 4 miles long, 11½ feet broad, and 13½ high; and passed under the gap between the two hills the Cerro de Sincoque, and the Loma of Nochistongo. The earth was soon found to cave, and obstruct the passage of the water. To prevent this, the gallery was first planked, and then lined with solid masonwork. Both were found insufficient. In 1629, an inundation commenced, which lasted 5 years, and during the whole of that time, the streets of the capital were passed in boats. An attempt was then made to open the gallery. Immense expence was laid out, and the work long lingered. Various schemes were successively adopted. At length an open drain was completed, in 1789, called the *Desaguedaro* or *Drain of Huehuetoca*. The whole length of the drain, from lake Zumpango, to the spot where it joins the Montezuma outside of the valley, is 67,535 feet, or more than 12¾ miles. The breadth of the cut through the gap, at the top, is from 280 to 360 feet; while that of the mere water course at the bottom is only from 11 to 13 feet. The depth of the cut, for more than 2½ miles, is from 100 to 130 feet; and, for more than half a mile, from 150 to 200.

Another drain has deen opened, more than 8 miles in length, from lake Christoval to the drain of Huehuetoca. A third was begun in 1804 from lake Tezcuco to the same drain; which, when finished, will be 104,660 feet, or more than 19¾ miles in length. To make it of any use, the drain of Huehuetoca will have to be deepened considerably, for more than 6 miles.

The lake of Pascuaro is in the intendency of Valladolid, and is a most beautiful sheet of water, affording several delightful situations

for towns. The lakes of Mextillan and Parras are in Durango. The former is the largest in the viceroyalty, except Chapala.

Mountains. An account of the Mexican mountains has already been given.*

Botany. The botany of this country is promised to the public by Humboldt in a separate work. The number of the Mexican plants is prodigiously great.

Mineralogy. The most considerable metallic wealth of Mexico is found in the four intendencies of Guanaxuato, Zacatecas, Durango, and San Luis Potosi, between lat. 21° and 25° N. A minute account of the Mexican mines is promised by Humboldt. In Skinner's account of Peru we are informed, that the produce of the Mexican gold mines, in 1790, was 5024 marks of gold, at $125 the mark; and 2,179,455 marks of silver, at $8 the mark. These sums were actually coined at Mexico, and amounted to $628,000 in gold; and to 17,435,640 in silver: total $18,063,640.

CAPTAINGENERALSHIP OF GUATEMALA.

EXTENT. BOUNDARIES. DIVISIONS. GOVERNMENT. POPULATION. TOWNS. PRODUCTIONS. RIVER, LAKES, &c.

Extent. THIS country, the most southern in North-America, reaches on the Pacific from the Barra de Tomala, in lat. 16 12 N. and lon. 94 15 W. to Punta Gorda, in about lat. 9° N.; and, on the gulf of Mexico, from the southern limit of the province of Merida, to the mouth of Rio Doradas, in about 10° N. Its length, along the Pacific, is about 770 miles. Its greatest breadth, across the country of Honduras, is 380; but, at each end it is much narrower.

Boundaries. On the N. lie the province of Merida, in Mexico, and the bay of Honduras; on the E. the gulf of Darien; on the S. E. the province of Veragua, in New-Granada; on the S. W. the Pacific; and on the N. W. the province of Oaxaca, in Mexico.

Divisions. This country is divided into the following provinces:

Chiapa	Honduras
Vera Pas	Nicaragua
Guatemala	Costa Rica

Government. It is governed by its own captain general and audience, both of whom reside at Guatemala.

Population. It is said to be the most populous country in Spanish America; but we have seen no estimate of its actual population. The English have a settlement at Honduras, on the N. coast, containing, according to captain Henderson, 200 whites, 500 mulattoes and free blacks, and 3000 slaves. The Indains in Honduras are still very numerous. The *Mosquito* Indians inhabit the coast. They are far the most civilized, and can muster from 1500 to 2000 fighting men. Immediately contiguous to them are the *Poyers* and

* Page 134.

Towkeas, each more numerous, brave, and warlike than the Mosquitoes, but still tributary to them. This is owing to the superior civilization of the latter.

Towns. GUATEMALA is the capital. It stands on the river Vaccus, near the Barra d' Istapa. Lat. 13 40 N. lon. 90 30 W. It is a large town, containing a university and numerous convents and churches, but we have seen no estimate of its population. It is an archbishopric.

The ancient capital city of this name, or St. Jago de Guatemala, stood in a valley, intersected by a river, between two burning mountains. In 1541 the city was ruined by a dreadful tempest. It was rebuilt at a distance from the volcanoes, and became very populous and rich, the third in rank in Spanish America. In 1773 it was swallowed up by an earthquake, and 8000 families instantly perished.

LEON is the capital of Nicaragua, stands on the W. side of the lake of Leon, and is a bishopric.

CIVDAD REAL is in the province of Chiapa. It is delightfully situated in a plain surrounded with mountains, and almost equidistant from the two oceans. It contains a noble cathedral, 3 monasteries, and 1 nunnery.

CHIAPA DE LOS INDOS is the largest Indian town in Guatemala. It lies W. of Civdad Real, and has about 20,000 Indian inhabitants. The number of whites is small. Bartholomew de las Casas, the celebrated apostle of the Indians, was the first bishop of Chiapa. The town contains numerous cloisters and churches.

Productions. This country produces great quantities of chocolate, cochineal, cotton, indigo, honey, some balsam, and woad. The merchandize of the province is generally conveyed to the port of St. Thomas, in the bay of Honduras, to be sent to Europe.

River, Lakes, &c. The river Chiapa is a considerable stream, emptying into the bay of Campeachy. The lakes of Nicaragua and Leon have heretofore been described. The Rio St. Juan is the outlet of the former. The Andes of Guatemala resemble those of Peru. They are jagged with volcanic cones, and form a steep, narrow, and lofty ridge, which runs throughout the captaingeneralship along the western coast.

The very scanty information we have been able to procure respecting this province, would not have induced us to give it a *separate* consideration, had not the silence of former geographers given currency to the opinion, that Guatemala was an integral part of Mexico. But it is as distinct as Chili from Peru, or as Venezuela from New-Granada.

WEST-INDIES.

SITUATION. DIVISIONS. NAMES. DISCOVERIES. ORIGINAL POPULATION. BUCCANEERS. RELIGION. GOVERNMENT. POSSESSORS. INHABITANTS. CLIMATE AND SEASONS. AGRICULTURE.

Situation. THE islands, which have received this name, lie between lat. 9 30 and 28° N. and between lon. 59 30 and 85 20 W. Trinidad is at the southern extremity, Barbadoes at the eastern, Marinilla Reef at the northern, and Cuba at the western.

Divisions. They are divided into 4 principal groupes.

I. *The Bahamas or Lucayas Islands.*

These consist of a great number of *keys* or rocks, and of 14 principal islands, or groupes of islands.

1. Turk's Islands
2. Caicos
3. Inaguas
4. Mayaguana
5. Crooked Island Groupe
6. Long Island
7. Exuma
8. Watling's Island
9. Guanahani
10. Eleuthera
11. New-Providence
12. Andros
13. Abaco
14. Great Bahama

II. *The Greater Antilles.*

1. Cuba
2. Hispaniola
3. Jamaica
4. Porto Rico

III. *The Caribbean Islands.*

1. The Leeward Islands.

1. Virgin Islands
   1. St. Thomas
   2. St. John
   3. Tortola
   4. Virgin Gorda
   5. Santa Cruz
2. Anguilla
3. St. Martin
4. St. Bartholomew
5. Saba
6. Barbuda
7. St. Eustatius
8. St. Christopher
9. Nevis
10. Antigua
11. Monserrat
12. Deseada
13. Guadaloupe
14. Marigalante
15. Dominica

2. Windward Islands.

1. Martinico
2. St. Lucia
3. St. Vincent
4. Barbadoes
5. Grenada
6. Tobago
7. Trinidad

IV. *The Lesser Antilles.*

1. Margarita
2. Tortuga
3. Orchilla
4. Bonair
5. Curacoa
6. Aruba

Names. The chief object which Columbus had in view, in his first voyage, was the discovery of a western passage to India. When he reached these islands he supposed that he had arrived there; grounding his supposition on the opinion of the ancients, that the country of the *Seres* or *Sinae*, (China) the most eastern part of their *India*, was 225 degrees of longitude E. of the first meridian, or that of the *Fortunate* or Canary islands. If this opinion had been correct, the country of the *Seres* would have been only 135 degrees W. of the Canary islands; and Columbus after the fatigues and perils of a long and untried voyage, at a period when scarcely any thing was known respecting the longitude, is certainly excusable for imagining that he had arrived at this India; although the island of Guanahani, on which he first landed, is, in fact, but little more than 60 degrees W. of the Canaries. After the discovery of India by Vasco de Gama, in 1498, by an eastern course; the India of the ancients and the neighboring islands received the name of the *East-Indies;* and the India of Columbus, that of the *West-Indies.* The continent, as well as the islands, was early called by this name; and the supreme council of Spain, which regulates the concerns of all her American possessions, has always been called the *council of the Indies.*

The islands, called by the English *The Bahamas*, are styled *The Lucayas* by the Spaniards. *Bahama* and *Lucaya* are the native names of two of the largest islands in the groupe. The former is the most generally adopted; the latter appears to have been the native name of the whole groupe, for the inhabitants of all were called *Lucayans.*

The Spanish geographers gave the name of *Antilles* or *Antillia* to the newly discovered islands, immediately after the return of Columbus from his first voyage: a name, according to Charlevoix, of an imaginary country, which had long been placed, in the ancient charts, about 200 leagues W. of the Azores. They did this to rob Columbus of his well earned glory. This name has occasioned great confusion. Hoffman has applied it to the Caribbean islands, and others to them and the large islands collectively. But the name belongs exclusively to the latter; for it was applied to them before the Caribbean islands were discovered. This appears from the following passage in the first book of the first decade of Peter Martyr, a work bearing date, November, 1493, 8 months after Columbus returned from his first voyage: "Ophiram insulam sese reperisse refert; sed, Cosmographorum tractu diligenter considerato, *Antiliæ insulæ* sunt illæ et adjacentes aliæ, hanc Hispaniolam appellavit." It is proper also to remark, that the word *Antilles* is generally said to be a contraction of *anti-insulæ*, or *islands opposite* to the continent. If it be, it must be confessed to be a clumsy derivation.

Columbus named the *Caribbean* islands after the *Caraibes* or *Caribbees*, the Indians who occupied them when they were discovered. The English sailors give the names of *Windward* and *Leeward* Islands to the two divisions of this groupe, in consequence of their relative situation with regard to the trade winds. The Spaniards,

however, give the former name to all the Caribbean islands, and the latter to the Greater Antilles.

The *Lesser Antilles* received their name, not of right, but of necessity, as no other had been given to the groupe.

Discoveries. It is sufficient to state here, generally, that Columbus discovered the Bahamas and Greater Antilles, in his first voyage, the Caribbean isles in his second, and the Lesser Antilles in his third.

Original Population. The *Lucayans* possessed the Bahamas; the *Arrowauks* the Greater Antilles, and probably a part or the whole of Trinidad; and the *Caraibes* the other Caribbean islands, at the time of their discovery. The *Arrowauks*, however, were the original occupants of these also. A more minute account of these nations will be given hereafter.

Buccaneers. Some notice is due to a class of men so long celebrated in these seas for their successful piracy and dauntless valor. The name is derived from the Caribbean word *buccan*, signifying *a grate or hurdle of Brasil-wood*, on which the *Caraibes* prepared their meat, placing it in the smoke at a good distance from the fire; and was given this class of men because they adopted the custom. They consisted originally of a body of French and English planters, who were expelled from St. Christopher by the Spaniards in 1629, with circumstances of outrageous barbarity; and immediately established themselves on the little island of Tortuga, 4 leagues N. of Port Paix, in the N. W. part of St Domingo. They were soon joined by a considerable number of Dutch emigrants, expelled from Santa Cruz in the same manner. Their first business was hunting wild cattle on the plains of St. Domingo, which they *buccaned*, and brought to the place of their retreat. The hides they sold to the vessels that came upon the coast, in return for clothes, liquors, fire arms, and ammunition. A Spanish armament, a few years after, without provocation, invaded Tortuga, and barbarously massacred all the women and children. The men had no alternative but to turn on their pursuers. Inured to the climate, united among themselves, and animated by all the motives and passions, which inflame the mind to great exertions; they became the most terrible antagonists the Spaniards ever encountered, and displayed such deeds of valor and successful enterprize, as were never surpassed. They assumed an appropriate dress, consisting of a shirt dipped in blood; a pair of dirty trowsers; a leathern girdle, from which hung a short sabre, and some Dutch knives; a hat without any rim, except a flap before to pull it off by; and raw hide shoes without stockings. From Tortuga, as a centre, they despatched parties in every direction, to rob and plunder the various Spanish settlements. An account of their exploits is the task of the historian. We will only remark here, that Montbars, a native of Languedoc, and Henry Morgan, a native of Wales, were their most celebrated leaders; that by their means Jamaica and the western parts of Hispaniola were rescued from the Spaniards; and that those two colonies, becoming their place of rendezvous, were long and greatly enriched by the enormous plunder brought by

them from the coast of Spanish America. The war between England and France, in 1688, occasioned a disunion of the English and French buccaneers, which greatly weakened their force. The last enterprize undertaken by the former, was a most successful attack on Carthagena, in 1697. At the peace of Ryswick, in that year, all differences were settled between England, France, and Spain. The French and English monarchs, from that time, withheld the countenance and protection previously afforded the buccaneers, and they were soon lost among the other European inhabitants of the West-Indies.

Religion. A majority of the whites in these islands are Catholics; all those in Cuba, Hispaniola, and Porto Rico are of this description; and a majority in those of the Caribbean islands, which were settled by the French. The church of England is, however, the established religion in all the English islands. The great body of the negroes are still pagans, if they may be said to have any religion at all. In the Spanish islands, they are taught by their masters the Catholic prayers; but they merely learn them by rote. In the English islands, and in those lately belonging to France, they never were taught any thing. One exception ought, however, to be made. The Moravians have for a long period sent missionaries to the English and Danish islands to convert the negroes to Christianity. In spite of the opposition of the colonial assemblies, the persecution and miserable example of the planters, and the extreme degradation of the blacks themselves, the missionaries have met with considerable success. The number of converted negro slaves under the care of the missionaries, in 1787, was as follows:

In Antigua exactly	5,465
In St. Christopher, a new mission, about	80
In Barbadoes and Jamaica	100
In St. Thomas, St. Croix, and St. John	10,000
Then living in the West-Indies	15,645

In St. Christopher they have met, since that period, with great success, and the whole number of converted blacks is now far greater. We should not have believed, but on the most irresistible evidence, that the profligate planters, and, if possible more profligate legislatures, have, in many of the islands, made the most decided and successful opposition to the labors of the missionaries.

Governments. The nature of the governments of the Spanish colonies has already been explained. In the English islands the government is vested in a governor or captain general, appointed by the crown; in a legislature, consisting of a council appointed by the crown, and of a house of assembly chosen by the freeholders; and in various superior and inferior courts, the judges to which are appointed by the crown. The governor is the ordinary or judge of probate; and in most islands the sole chancellor; but in some the council, together with the governor, constitute the court of chancery. No bill can become a law in any island without the assent of the governor. After his assent is obtained it is a law, till the dissent of the crown is officially signified. If the assent of the crown is

once officially procured, no subsequent dissent can afterwards abrogate the law. All laws must be in conformity with the laws of England.

Possessors. Cuba, the eastern part of St. Domingo, and Porto Rico, together with a few islets among the Virgin islands, belong to Spain; the western part of St. Domingo is independent; Sweden claims St. Bartholomew; Margaritta belongs to the republic of Venezuela; several of the Lesser Antilles are uninhabited and unclaimed. The Bahamas, Jamaica, the Leeward islands, with the trifling exception already made, all the Windward islands, and Bonair, Curraçoa, and Aruba belong to the English. It is proper, however, to remark that the Danes lately possessed St. Thomas, St. John, Santa Cruz and their dependencies; the Dutch, St. Eustatius, Saba, Curraçoa, Bonair, and Aruba; and the French, Guadaloupe, Martinico, St. Lucia, and Tobago: and that these islands are now, in common language, respectively called the *Danish*, *Dutch*, and *French* West-India islands.

Inhabitants. The present inhabitants of these islands are the natives, the whites, and the blacks.

In the eastern part of Trinidad a few of the natives are still found. None of the *Lucayans* now remain. There are a few *Caraibes* in some of the Caribbean islands.

The whites are of two descriptions, Europeans and creoles. The Spaniards call the Europeans *Chapetones*. The *creoles* are *whites born in the West-Indies*. The epithet *white* is not, however, applied to them with the strictest propriety; for, in a comparatively short period, the fine red and white of the north of Europe degenerates gradually to the *pale*, the *sallow*, and the *tawney*. Many of the creoles, also, if they loved to enquire into these particulars, upon looking back into their family history, might discover that their great grandmothers were of the *posterity of Ham*; but as this is not an unfrequent case, as the genealogy of a man is of much less consequence than that of a horse, and as these unfortunates are not distinguishable by any apparent murkiness greatly superior to the common tinge, the defect is generously overlooked. Edwards says that the creoles are taller, but more slender, than the Europeans; that they are distinguished by the suppleness of their joints and the ease and agility of their movements; and that their skins are cooler, and their eyes sunk farther in their heads. He speaks of them, also, as arriving early at maturity, and as possessed of great quickness of apprehension; as remarkable for a warm imagination, and a high flow of spirits; as frank, generous, hospitable, and rash; and, at the same time, as proud, impatient of subordination, litigious, and indolent. The Europeans constitute the bulk of the English, and we believe of the French sugar colonists, but the creoles are the most numerous in the Spanish islands. The Europeans are said to be more cruel to their slaves than the creoles. Both are licentious in their morals. The Spanish colonists are undoubtedly the most corrupt. Not only the men but the women, also, are deplorably profligate. The most reputable travellers assert, that scarcely any thing like personal purity is to be found there, except

in unmarried females. The number of mulattoes in the Spanish islands is, also, prodigiously great, compared with the whole number of blacks. This most loathsome intercourse is, also, very common in the French colonies, so much so that one of their own writers enters into an examination of the reasons of this preference of color, and finds it in the superior coolness of the skin. Though not uncommon, it is less frequent among the English colonists.

The blacks are of two descriptions; *free people of color* and *slaves*. The free people of color include all the *mixed*, and most of the *genuine* blacks, in the Spanish colonies; most of the first, and a few of the last, in the English; and but a small portion of both in the French. The French planters often employed their own mulatto children as house servants; this, however, we believe the laws did not admit. The mixed blacks, in the Spanish colonies were divided into many grades heretofore enumerated. In the British islands persons of a mixed race are known by the names *samboes*, *mulattoes*, *quadroons*, and *mestizoes*. A *sambo* is the offspring of a black and mulatto; a *mulatto*, of a black and white; a *quadroon*, of a mulatto and white; a *mestizo* or *mustee*, of a quadroon and white. Those of the women, of the mixed breed, in the English islands, who are young and of a tolerable person, are universally kept as mistresses. The men lay claim to an entire superiority over the blacks; and in all the islands are deprived of many of the privileges of the whites.

The slaves constitute the great majority of the inhabitants in all the islands, except the Spanish. The appearance and character of the slaves depends much on the district in Africa from which they are brought. Under the head of Africa a few remarks will be made on this subject. As to the treatment of the slaves the Spanish code is the most mild and equitable. The clothes, food, hours of labor, beds, bedding, and lodgings of the slaves are superintended by the magistrates. On holidays they are excused from work, and are taught the Catholic prayers. On work-days, each slave has two hours of leisure. Men after 60, and boys before 17, are excused from field labor. Women are employed only in business proper for their sex, and do not work in company with the men. Slaves are allowed to marry the slaves of other masters; and the master of the man slave must, in that case, purchase the female at a fair valuation. No master may inflict more than 25 lashes; and these must not occasion any contusion, or effusion of blood. Any one, who strikes a slave, beside the master or steward of the plantation, is liable to the same penalty as if he struck a white man; as is the master or steward, if he inflict a heavier punishment than the law allows. When a slave dies, information must be given by the master, in three days, or he is compelled to *prove* that the slave died a natural death. Slaves have a right to redeem themselves at a fair price. Female slaves, cohabiting with their masters, are free. Any act of acknowledgement by the father entitles these illegitimate children to his estate, on failure of legitimate issue. Depons says, that, except in the article of comfortable food and clothing, these laws are generally observed. Hardly

one of these requisitions is observed or found in the English islands, and but few of them in the French. The African institution has lately turned the attention of parliament to the cruelty of the English slave code, and to the fiend like tortures inflicted by many of the planters. We hope most sincerely, that the evils arising from both will soon be in a good degree remedied.

Climate and Seasons Edwards divides the West-Indian year into four seasons of very different length. The spring commences with the month of May, when the foilage becomes more vivid, and the savannas look green again. The first periodical rains set in about the middle of the month; they come from the S. commonly fall every day about noon, and break up with thunder storms towards evening, creating a bright and beautiful verdure, and a rapid and luxuriant vegetation. They continue about a fortnight. The thermometer, in this month, averages 75 degrees, and commonly falls 6 or 8 immediately after every diurnal rain. Summer commences about the first of June. The weather becomes dry, settled, and salutary; not a cloud is to be seen; and the sky shines with serene brightness. The heat is insupportable in the morning, till about 10; when the sea breeze sets in, and blows with great force and regularity from the S. E. till late in the evening. During its prevalence the climate in the shade, becomes tolerable. The medium heat is now 80°, and the mercury is seldom above 85° or below 75°. At this season the clearness and brilliancy of the heavens by night, and the serenity of the air, produce the most calm and delightful sensations. The moon in her seasons, displays singular radiance, and the milky way almost supplies her absence. The planet Venus, too, casts a distinct shade; and with the other luminaries of night, makes full amends for the short duration of twilight. About the middle of August, the diurnal breeze begins to intermit, and the atmosphere becomes sultry and suffocating. During the remainder of the summer, which may be considered as lasting till the latter part of September, coolness and comfort are sought in vain; instead of a regular breeze from the sea, there are faint breezes and calms alternately; and the thermometer occasionally rises above 90°. Towards the last of summer large towering clouds, fleecy, and of a reddish hue, are seen in the morning, in the S. and S. E. The tops of the mountains, at the same time, appear free from clouds, wear a bluish cast, and seem nearer than usual. In the beginning of autumn, when these vast accumulations of vapor have risen to a considerable height, they commonly move horizontally towards the mountains, proclaiming their progress in deep and rolling thunder, which is answered by the distant but loud roar of the ocean. The rains commence in the beginning of October. The heavens pour down cataracts, and the earth is deluged. These violent rains last through the greater part of November. The hurricane season comprises the months of August, September, and October. About the first of December, a considerable change is perceived in the temperature of the air; and a new season commences, which lasts to the end of April. At first the northern coasts are beaten by a rough and heavy sea, roaring with

incessant noise; the wind varies from the E. to the N. E. and N.; sometimes driving before it, not only heavy rains, but hail; till at length the atmosphere is cleared, the weather becomes steadily serene and pleasant, and the temperature cool and delightful. This lasts till the month of May, and is, to the sick and the aged, the climate of paradise. In the large islands showers occur on the mountains every month in the year, and considerable rains are expected on their north coasts in December and January. In these, also, the sea breeze, by day, is regularly followed by a land breeze, by night, blowing in directly opposite directions on the opposite coasts; but in the small islands there is no such alternation.

Agriculture. Sugar is the capital object of agricultural attention in these islands. The three next in importance are cotton, indigo, and coffee; and after them cacao, ginger, allspice, arnotto, aloes, pimento, cloves, and cinnamon. Maize, yams, and sweet potatoes, are also extensively raised in the field for home consumption.

Sugar was known to the ancients. They called it *sacharum*: a word corrupted, in monkish Latin, into *zucharum*, and afterwards into *zucra*; and thence converted by the Spaniards into *açucar*, by the French into *sucre*, and by the English into *sugar*. It is a native of America, for it was found in the Greater Antilles by Columbus; and the Caraibes had it in their own islands before they were planted by Europeans.* The plant is a jointed reed, terminating in leaves or blades, whose edges are finely and sharply serrated; and, when ripe, of a fine straw color, inclining to yellow. It contains a soft, pithy, substance, which affords a copious supply of juice, of a sweetness little cloying, and highly agreeable. The distance between each joint varies, according to the fertility of the soil, from 1 to 3 inches; and the diameter of the cane from half an inch to an inch. In the strongest lands it measures 12 feet from the stole or root to the upper joint; but generally from $3\frac{1}{2}$ to 7. The stole in the best lands has been known to put forth 100 suckers. The best soil is the ashy loam of St Christopher, then the brick mould of Jamaica, and then the black mould of several varieties. Too little attention is paid to the manuring of the lands. The common manure is a compost formed of ashes, the feculences of the still house, field trash, the dung of stables and moveable pens, and good mould. The proper planting season is in September and October. The ground is prepared by laying it out in holes or trenches. The cuttings selected for planting are commonly the tops of the canes, that have been ground for sugar. Each top has five or six germs, two of which are sufficient for one hole or spot. The germs are placed longitudinally in the bottom of the hole, and covered with mould about two inches deep. In 12 or 14 days, the young sprouts appear. They must be kept wholly free from weeds, and frequently furnished with additional mould. In rich and moist lands, the cane does not ripen under 16 or 17 months, but in light soils 2 months earlier. The calculation is therefore to have two or three sets of

* Edwards III. 13. 14.

canes, in every plantation. Crop time is in every island a season of universal festivity. The plants should be cut with a bill near the root, and a small distance from the cluster of leaves at the top. The tops are reserved for planting. Good land will profitably admit of five successive cuttings, but each will be less than the preceding. The mills in which the canes are ground consist of three upright iron plated cylinders, from 30 to 40 inches in length, and from 20 to 25 in diameter. The middle one, to which the moving power is applied, turns the other two by cogs. The canes are twice compressed, passing through the first and second rollers, and then being forced back by a kind of framework through the second and third. This last operation leaves them completely dry, and sometimes even reduces them to powder. They then serve for fuel to boil the liquor. The juice falls into a leaden bed, and it is thence conveyed to the receiver; from which wooden pipes, lined with lead, convey it to the boiling house. It commonly consists of 8 parts water, 1 part sugar, and 1 part gross oil and mucilaginous gum, with a portion of essential oil. The richest juice has the least oil and gum. Sometimes a portion of the green tops are ground in, which tend to acidify the whole; and often, also, a thin black coat of matter round the cane, between the joints, which serves to discolor it. In the boiling house, the liquor is received into copper caldrons, called *clarifiers*. Three of these, of 400 gallons each, will make 20 hhds. of sugar a week. Each is provided with either a syphon or stop cock to draw off the liquor. Each has a flat bottom, and is hung to a separate fire; each chimney has an iron slider, called a *damper*; which being shut, the fire goes out for want of air. The clarifier being filled with fresh liquor, and the fire lighted, the *temper* is stirred in, commonly Bristol white lime, in the proportion of half a pint to a hundred gallons, to neutralize the acid. In a short time a scum arises consisting of gum, oil, and other impurities; when the heat is gradually increased, nearly to the heat of boiling water; but the liquor must by no means be suffered to boil. In about 40 minutes the scum rises in blisters, which break in white froth. The damper is then applied, and the fire extinguished. By the syphon or stop cock, the pure liquor, after the lapse of an hour, is drawn off, and falling into a pipe, is conveyed to the evaporating boiler, called the *grand copper*. Here it is suffered to boil; and, as the scum rises, it is taken off by scummers. It is then laded into the second boiler, and the boiling and scumming are continued; and afterwards into the third and fourth. From the last it is laded, when exceedingly thick, into the *coolers*. Of these there are commonly 6; each a shallow wooden vessel, 11 inches deep, 7 feet long, and 5 wide, and holding a hogshead of sugar. Here the sugar grains, that is, runs as it cools, into a coarse irregular mass of semiformed crystals, separating itself from the molasses. Hence it is conveyed to the *curing house*, a large airy building, provided with a capacious molasses cistern, with sloping sides. Over this, is a frame of massy joistwork, on which open, empty hogsheads are ranged. In the bottoms of these, eight or ten holes are bored, through which the stalk of a plantain leaf is thrust. In-

to these hogsheads, the mass from the cooler is poured ; the molasses in three weeks drains off, and the sugar grows tolerably dry and fair. This is called *muscovado.*

The *clayed* sugar is more refined, and is thus prepared. A quantity of sugar from the cooler, is put into a conical pot with the point downward, and having a hole of half an inch diameter at the bottom, for the molasses to drain through. After the mass is become cool, the plug at the bottom is taken out, and the molasses continues to drop from 12 to 24 hours. A stratum of clay is then spread on the sugar, and moistened with water ; which oozes through the clay, and unites with, and dilates the molasses, carrying off a much greater portion of the impurities. This process occasions the loss of *one third* in weight, and is not much pursued in the English islands.

About 2000 gallons of cane juice yield 1 hhd. of muscovado sugar of 16 cwt.

The process of making rum is as follows. For a plantation yielding 200 hhds of 16 cwt. 2 stills are necessary ; one of 1200, the other of 600 gallons, with the proportionate pewter worms. Large tubs must be provided, to contain water to cool the worms, unless a stream of running water can be substituted. For working these stills, it is necessary to procure a *dunder* cistern, of 3000 gallons ; a cistern for the scummings ; 12 fermenting vats, each of 1200 gallons, together with two copper pumps to convey the liquor from the cisterns, and pump up the *dunder ;* and butts to hold the spirit. The ingredients for making the rum, are molasses, scummings, *dunder* or lees, and water ; and when mixed are called the *wash.* Of the three last, a third of each* is put in the fermenting cisterns, and in about 24 hours the fermentation is sufficient to put in the molasses : 3 gallons for every 100 of fermenting liquor, and 3 more, a day or two after. The heat should vary from 90° to 94°. From the 5th to the 8th day, the fermentation gradually subsides. The liquor is then put into the largest still, filling it to within 8 or 10 inches at the top. A clear transparent liquor comes through the worm in about 2 hours, and is suffered to run till it is no longer inflammable. This is called *low wine*, and is drawn off into butts, and conveyed to the second still ; from the worm of which it comes over a pure spirit, in which oil will sink. The common proportion of rum to sugar on a plantation, is about 2 to 3, or 200 galls. to 3 hhds. of 16 cwt. From 1200 galls. of wash, 272 of low wine are made, and from these, 113 of proof rum. Besides the molasses used in the distillery, 60 galls. will be furnished by the plantation for every 3 hhds. of sugar of 16 cwt.

A sugar plantation of 900 acres, will yield 200 hhds. of 16 cwt. In one of this extent, 300 are planted with canes, 300 are reserved for provisions, and 300 for timber. The land and clearing will cost 14,100*l.* currency ; the buildings 7000*l.* ; 250 negroes 17,500*l.* ; 80 steers 1200*l.* ; 60 mules 1680*l.* : total 41,480*l.* Jamaica currency,

* This is the rule in the Caribbean islands. In Jamaica, the proportions are *dunder* 50, scummings 36, water 8, and molasses 6. One hhd. of 16 cwt. will yield 140 gallons scumming.

of which 42,000 pounds are equal to 30,000 pounds sterling.

Two kinds of *cotton* are cultivated in the West-Indies, the *green seed*, having 2 varieties, and the *shrub cotton*, having 5. Cotton is cultivated chiefly on the mountains.

Three species of *indigo* are cultivated, the *wild*, the *Guatemala*, and the *French*. The plantations are also in the mountains.

The *cacao* is a native of South-America.

Ginger was very early brought from the East-Indies to Hispaniola. It is a root planted like the common potatoe, and dug once a year. If intended for preserves, it is dug while green. An acre will yield 140 pounds.

Arnotto is derived from a shrub 7 or 8 feet high, bearing oblong hairy pods. Within are 30 or 40 seeds enveloped in a pulp of a bright red color. The pods are gathered chiefly from plants growing spontaneously, and are boiled in clear water, till the seeds are extricated. The sediment is the *arnotte*.

The *aloes* is a small plant, propagated by suckers, and thrives in the most barren soil. A strong decoction is made, which is boiled to the consistence of honey, and then suffered to harden.

The *pimento* tree is a native of Jamaica. It blossoms in July, and August; and, soon after, the berries are fit to be gathered. They are gathered by the hand, and exposed to the sun about 7 days, till the green color is converted to a reddish brown.

The *cinnamon* tree is cultivated in Jamaica, and the clove tree in Dominica.

BAHAMAS.

EXTENT. SITUATION. HISTORY. ORIGINAL POPULATION. GOVERNMENT. POPULATION. NAVIGATION. BANKS. KEYS. WRECKERS. CLIMATE. FACE OF THE COUNTRY. SOIL. PONDS. BOTANY. ZOOLOGY. ISLANDS.

Extent. THESE islands lie between lat. 20° and 27° N. and between lon. 69° and 80° W. They stretch from the bank of the Nativity in the S. E. to Marinilla Reef in the N. W. upwards of 900 miles.

Situation. They lie directly N. of the Greater Antilles, and are separated from Cuba by the Old Bahama channel. The gulf of Florida, or the New Bahama channel separates them from the E. coast of East-Florida. Through this channel the gulf stream passes.

History. Columbus discovered Guanahani, one of this groupe of islands, on the 12th of October 1492; and New-Providence, the most important in the groupe, on the 17th of the same month. In 1667 Charles II. granted all the Bahamas to the duke of Albemarle and 5 others, proprietors of Carolina. In 1672, the first settlement was commenced in the island of New-Providence, and called Nassau. The islands, soon after, became the resort of pirates; and the regular inhabitants suffered severely, and for a long time, from

their attacks, and those of the Spaniards. In 1708, the Spaniards, assisted by the French, carried off all the negroes; and the whites, about 1000 in number, withdrew to Carolina. Some promising attempts had previously been made to cultivate provisions, sugar, and tobacco. The pirates immediately took possession of Nassau, and made it their capital. Here they rioted in debauchery and excess; and were long the terror of mariners, and of the North-American coast. The celebrated *Black Beard*, alias *John Teach*, was their leader. For about 10 years he was considered as the sovereign of these islands. Perhaps even in the annals of modern French depravity, it would be difficult to select actions more sanguinary and infernal, than are recorded of this man. He was killed off the coast of North-Carolina, Nov. 22. 1718. The islands were soon cleared of pirates, and a permanent settlement made at Nassau, under governor Rogers. The town was fortified in 1740. Early in the American war, the town was taken by the Americans, but speedily abandoned. The Spaniards took it again in 1781, but it was retaken by col. Deveaux, with about 70 troops, though garrisoned by 700. Since that time all the islands have been in the hands of the English.

Original Population. The aborigines were called Lucayans. When first discovered they were about 40,000 in number. In person they were of a middle stature; well shaped, but rather fleshy; of an olive color; with high foreheads, open countenances, and regular features. They were for the most part naked, and painted their bodies generally red, but sometimes black and white. They subsisted chiefly on fish, and were devoted to a maritime life. Some of their canoes were large enough to carry between 40 and 50 persons. They were totally ignorant of the use of iron; and the only articles of value discovered amongst them, were cotton and gold. They were averse to war, but sometimes armed in self-defence. Their javelins were pointed with fish-bones. Their principal talent was an extraordinary expertness in diving. Columbus and his men were welcomed by the Lucayans, with kindness and hospitality. Scarcely 20 years had elapsed, however, before the Spaniards transported them all, by force or artifice, to Hispaniola, to dig in the mines. Some few effected their escape from that island, though many were frustrated in the design. Two men and one woman had constructed a raft; and having laid in a stock of maize, and of water in gourds, they put to sea, steering northward for New-Providence. They were often washed from the deck of their precarious vessel: but being admirable swimmers, and accustomed to struggle with the waves, they regained their raft; and working their way with paddles, had actually proceeded 150 miles on their perilous voyage, when a Spanish ship fell in with them, and carried them back to a life of slavery and torture. The most skilful divers among them were transported to the coast of Cumana and employed in the pearl fishery, on the islands of Margaritta and Cubagua. One hundred and fifty ducats, at that time a large price, was often given at Hispaniola for a diver of the Bahamas. They survived, however, but a few years under the dominion of their

oppressors. In the tremendous calamities, which she is now suffering, the Spanish nation, which sanctioned and encouraged the early American adventurers, is receiving, from Him, who hath declared that he will "visit the iniquities of the fathers upon the children, unto the third and fourth generation of them that hate him," a recompence for its cruelty and guilt.

Government. These islands are all under a governor general, appointed by the crown. He is commander of the militia; institutes and determines the sessions of the legislature; and possesses a negative on their proceedings. His income is nearly 3000*l.* sterling.

The legislature is composed of a council, and house of assembly. The council consists of 12 members, appointed by the crown, usually at the recommendation of the governor. They continue in office during life. The house of assembly consisted, in 1803, of 26 members, returned by the several islands in the government, distributed into districts. New-Providence, then sent 8, Harbor island 3, Eleuthera 3, Abaco 3, St. Salvador 1, Long island 2, Exuma 3, Andros 2, and Crooked island 1. Turk's island refused to send any, disclaiming all connection with the other islands. The qualifications are property of the value of 2000*l.* *currency, or 200 acres of cultivated land. Every free white male, 21 years of age, having resided 12 months in the government, and having been a householder, or freeholder the six preceding months, or paid duties to the amount of 50*l.* in the preceding year, has a right to vote for members of assembly.

The governor and council constitute the court of chancery, and the high court of errors and appeals. If the matter in dispute exceed 500*l.* currency, an appeal lies to the king in council. The supreme court consists of a chief justice, with an income of 1280*l.* sterling, and 2 puisne judges, with an income of 340*l.*; and holds 3 sessions, of 3 weeks each, from the 1st of January, April, and July. An appeal lies to the governor and council where the matter in dispute exceeds 300*l.* An inferior court is held every 3 months, taking cognizance of causes where the matter in dispute does not exceed 20*l.* There is also, a court of vice admirality at Nassau. The attorney general for these islands, has a salary of 500*l.* sterling. The rate of interest is 6 per cent. The damages on protested bills of exchange returned from Europe, are 20 per cent. and from America, 15.

Population. The inhabitants are of two descriptions, the *residents* and the *wreckers* From the loose data furnished by the subsequent account of the several islands, we are induced to believe that the population of all these islands amounts to 4000 whites, and 11,000 blacks, total 15,000.

The *residents* are chiefly loyalists, and their descendants, who emigrated from Carolina, and Georgia, at the close of the American war.

M'Kinnen describes the whites generally as having regular

* The currency is the same with that of New-York, 8s. to the dollar.

features, and the women as singularly beautiful. They are commonly of an amiable and beneficent disposition, mild to their slaves, and public spirited. They are generally acquainted with what is going on throughout the Bahamas, and readily engage in plans of general or local improvement.

Navigation. The trade winds render it easy to sail from the southern to the northern extremity. The gulf stream also, in the W. renders a northern course no difficult task ; but to retrace one's steps in either path, is a work of great difficulty. Owing to the immense number of sand banks, rocks, and breakers, every where dispersed over these seas, the navigation, except with a most skilful pilate, is extremely unsafe. Columbus, however, made his way without injury through the Bahamas, to Cuba. Without a chart or pilot, he steered safely through, under the direction of providence, though so many thousand vessels have since been wrecked. Vessels bound to New-Orleans, from the United States, first make for the Hole in the Wall, the southern point of Abaco. Proceeding through the N. E. channel, they enter on the Great Bank S. of Berry islands, and leave it S. of the Cat Keys, whence they make for the Havanna, Those bound to Jamaica pass to the leeward of Crooked island, between it and the Great Bank, and leaving the Inaguas on the left, make for the windward channel, between Cuba and Hispaniola.

Banks. There are two noted banks in these seas ; the Great and Little Bahama banks.

The Great Bahama bank lies between lat. 21 40 and 26 N. and between lon. 74 50 and 80 20 W. Its length from Verde Key in the S. E. to Isaac's Key in the N. W. is 450 miles. Its breadth in the S. is about 140 miles. A little N. of the tropic, it is divided by an arm of deep water, called Providence bay. The branch of the bank, N. E. of this bay, reaches from the head of it, about 90 miles, to New-Providence, its N. W. termination ; and is every where about 40 miles wide. The W. branch, extends from the head of the bay, 250 miles N. W. to Isaac's Key. Its least breadth is 50 miles ; and its greatest, from the Biminis to Berry islands, 100. Providence bay is 100 miles long, from S. E. to N. W. and about 30 broad, opening, on the N. W. side of New-Providence, into the N. E. channel. The Old Bahama channel separates this bank from Cuba. This channel in the N. W. is divided by the Santareen bank, into the Santareen channel, next to the Great bank, and Nicholas channel, next to Cuba. Florida gulf, lies on the W. of the Great bank, dividing it from Florida ; the N. W. channel on the N. divides it from the Litte bank ; Rock sound, and Exuma sound on the N. E. separate it from Eleuthera and Guanahani. Long island, the Exumas, Stocking island, and an immense number of keys, flank the N. E. coast of the Great bank, as far as Providence. The Holy Ghost isles, Andros island, and the Berry islands, skirt the western branch, on Providence bay ; and Isaac, the Biminis, Cat Keys, and various others, the W. coast of the same branch.

Little bank, is bounded by Florida gulf, on the W ; N. W. channel on the S ; N. E. channel on the S. E ; and the Atlantic on the

N. E. Its length from the Hole in the Wall, in the S. E. to Maranilla Reef, in the N. W. is about 180 miles, and its breadth from 40 to 70.

Santareen, Eleuthera, Guanahani, and Caicos banks, are all of considerable extent.

These banks are said to consist, in a great measure, of sea shells, in the form of sand, more or less worn or rounded by the action of the water. At a certain depth, this sand is underlaid by calcareous rocks, the heads or fragments of which, in many places, appears at the bottom. The depth of water on the Great bank, varies from 1 to 7 fathoms, on the Little bank, from 3 to 12; on the others, it is generally deeper. The light color of the sand, and the transparency of the water, render the bottom, visible at any depth; and thus, in some measure, diminish the danger of the navigation.

Keys. These are rocks or sand islands, scattered in immense profusion over this part of the ocean. Their number has been computed at 700. The larger and more remarkable have received appropriate names; the rest have no other denomination than the generic names of *keys* or *quays*. The great body of them skirt the banks. The rest are in the main ocean.

Wreckers. The inhabitants of the Bahamas, previous to the American war, were principally engaged in a sea faring life; and, in allusion to the large and beautiful shells with which their shores abound, were, by their visitors, nicknamed *conchs*. These persons, with their slaves, are constantly employed in the business of *wrecking*, that is, of rescuing shipwrecked vessels, with their crews and cargoes from the waves. They sail in small flat bottomed sloops, just fitted for the seas which they navigate. They are excellent sailors, and swimmers; are familiar with all the keys, shoals, and breakers; and, with alacrity and courage, encounter any danger and hardship. They are licensed by the governor, and receive salvage on all property rescued from the waves. By day, they are always cruising; at night, they usually put into the nearest harbor. The number of these vessels is very great. M'Kinnen mentions 40 sail, as lying off one inlet, on the Florida coast. This is a convincing proof of the numerous victims continually thrown on the shoals. The wreckers are accused of being rapacious; and of endeavouring, in a variety of ways, to increase the number of shipwrecks, that their salvage may be augmented. Their great places of rendezvous are the Florida gulf, the Hole in the Wall, and the Hogsties.

Climate. In the winter the weather is very inconstant. The winds, however, are then far less boisterous than in the more northern seas. Strong gales are common, in March, from the N. and N. E. The proper hurricanes of the more southern West-Indies do not reach these islands. In the hurricane months, however, the gales often stiffen to a tempest, and are very destructive in their ravages. They are so far ordinary that regard is had to them in the mode of building. In 1800, or the year after, one of these tempests drove 100 vessels ashore in the safe and sheltered harbor of Nassau.

From a register, accurately kept for several years in Crooked island, it appears that the medium temperature of 2 P. M. in summer is 86°; and in winter 72°. The greatest heat, in summer, seldom exceeded 90°; and the greatest cold, in winter, 50°. In February and March the thermometer of that island ranges between 70° and 80°. The temperature of New-Providence is 2° or 3° cooler than that of Crooked island. All the islands are healthy.

Face of the Country. These islands are heaps of limestones and shells, covered with vegetable mould. The *keys* are chiefly rocky and sandy: on some of them a few trees are found. All the large islands that front directly upon the Atlantic, and almost all the others, stretch from S. E. to N. W. and the ridge of each is in the same direction.

Soil. The soil of all the islands is a thin, but rich, vegetable mould. If the natural growth is cleared by burning, the mould burns with it, and the soil is ruined. If not, it yields, for a number of years, luxuriantly, and then is exhausted. Without manure, which cannot here be procured in any considerable quantity, it will yield no longer; and the planter is compelled to clear a new plantation. Many of them, deluded, on their first arrival, by a deceitful prospect of prosperity, have found themselves, in a few years sinking into ruin, from which no exertions on the spot could effectually relieve them. Their only resource has been a removal to some other island. The forsaken plantation, in a year or two, is covered with young forest trees, and, in 20, with a new coat of vegetable mould.

The chief article of culture in these islands is cotton. Guinea corn is raised in all of them, and is highly nutritive. Here, also, are pine apples and oranges.

Ponds. Most of the Bahamas have numerous salt ponds. Those of Turk's island are the most valuable. A more minute account of them will be given hereafter. The islands contain no fresh water streams. The wells are necessarily dry to a considerable depth.

Botany. The principal trees are the buttonwood, elemi, common, silver-leaved, hog, and small palmetto; wild fig tree, cactus opuntia; wild pimento, mahogany, brazilletto, mastic, lignum vitæ, iron wood, bullet wood, croton eleutheria, croton cascarella, and mountain cabbage. The pitch pine abounds in New-Providence. The timber of these islands is not distinguished for its size or long life. The orange and pine apple are the common fruits. The lime, shaddoc, sapadilla, and mimosa are cultivated. Strawberries, and many of the northern fruits, are raised at Nassau.

Several varieties of the gardenia, the red mangrove or seaside grape, the sage tree, wild tobacco, wild coffee, wild cinnamon, butter bough, candlewood, Palma Christi, horehound, vervains, squills, capillair, and a plant called *tea*, are among the shrubs and plants that grow wild in the Bahamas.

The *anana*, a species of misleto, grows on the limbs of various trees. The compact clusters of its leaves retain a considerable quantity of rain water. The early visitors procured their supply from it.

Zoology. The only tame animals possessed by the natives, it is said, were *parrots*, and a species of *dogs* that did not bark. A number of cats left on Guanahani by the early voyagers have multiplied astonishingly over all the Bahamas. Lizards and guanas are abundant and are thought a luxury.

The tall red bird is common; its flesh is very rich. Large flocks of flamingoes are found in the bays. The bald headed pigeon, the wild pigeon, and green parrot abound in the fields and plantations. The humming bird and ground dove frequent the pineries and groves, and the mocking bird enlivens the shore with its sprightly melody.

The fish caught here are the hynde, grunt, sword fish, king fish, jew fish, hog fish, angel fish, bill fish, hound fish, parrot fish, trumpet fish, gar fish, bream, ten pounder, and crab. Alligators are occasionally caught for the table. The flesh is hard and white, and resembles that of a sturgeon.

Islands. Besides the keys already mentioned, the Bahamas consist of 14 islands or groupes of islands, which demand a more minute description. The following are their names in a geographical order, commencing from the S. E.

Turk's Islands	Watling's Island
Caicos	Guanahani, St. Salvador, or Cat Island
Inaguas	Eleuthera and Harbor Islands
Mayaguana	New-Providence
Crooked Island Groupe	Andros
Long Island	Abaco or Lucaya
Exuma	Great Bahama

A particular account of each is subjoined.

TURK'S ISLANDS.

The Spaniards call these *Los Amanas.* They abound with a dwarfish species of cactus, *(cactus coronatus)* vulgarly called *Turk's head*, from the striking resemblance the plant bears to a Turkish cap. Hence the English name. The two principal islands are the *Grand Turk*, in the N. and the *Salt Key*. The Grand Turk is 12 miles long from N. to S. and averages 2 in breadth. It is about 200 miles N. W. of the Bank of the Nativity. The residents are about 18 heads of families, and 40 slaves. The inhabitants disavow any connection with the Bahamas, and refuse to send a delegate to the legislature at Providence. In the early part of the year, great numbers come over from Bermuda for the purpose of raking salt; sometimes between 1000 and 2000. The salt is procured from salt ponds, which are numerous. The largest pond is in the Grand Turk, and is more than a mile in length. Another, on the Salt Key, is of nearly equal size. Early in the year, the salt in these ponds crystallizes, and subsides in solid cakes. The process is facilitated, however, by making small pans. These pans are laid out by the rakers on the margin of the ponds, and are filled from time to time with the brine about 6 inches deep; which is thrown by a moveable machine, like the wheel of a water mill, from the ponds

into a gutter, and thence the pans are easily supplied. A single laborer will rake from 40 to 60 bushels of salt in a day.

A free port is established in the Grand Turk, from which the Americans are permitted to carry away salt in their own bottoms, subject to a duty of 31½ cents per ton. The receipts of the year 1802 amounted to $9,911·11, which would indicate that 32,035 tons had been carried away.

The soil of these islands is sandy, and admits of but little cultivation. A small quantity of Guinea corn is raised.

THE CAICOS.

This is an Indian name, derived from a native plum tree. The English sailors call the islands the *Caucus*. They lie N. W. of the Turk's islands, in the form of a crescent, opening to the S; and are separated by narrow passages. The four principal are the *Grand, North, Middle, and West-Caicos*. Grand Caicos, is about 30 miles long. In 1788, they contained 12 heads of families, and between 200 and 300 slaves; but are now far more populous. They had not, in 1803, sent any delegate to New-Providence. A port of entry is established. West-India fruits here come to perfection. Horned cattle and hogs succeed well. The soil is the best in the Bahamas. The staple commodity is cotton. There are two or three sugar plantations. The Caicos bank is about 70 miles by 50 The islands flank the N. E. side of it; and numerous keys are on the S. W. side.

THE INAGUAS.

Inagua is a Spanish word, denoting that "*water is to be found there.*" The English sailors call them the *Henegas*. These islands are two in number, the *Great* and *Little* Inagua; and lie S. W. of the Caicos, and directly N. of the Windward channel. Great Inagua, is 50 miles long, from E. N. E. to W. S. W. and 15 broad. Little Inagua, lies a little distance N. of it. A dangerous reef lies off Great Inagua, and the two islands are noted only for the number of shipwrecks on the coast. There were no inhabitants in 1803; but at that time, a few familes were proposing to remove, on account of the numerous salt ponds.

At the distance of 10 or 12 leagues N. N. W. of Grand Inagua are some small keys, with wings or reefs of rocks on each side in form of a horse shoe, which admit a passage from the E. and form a harbor. The French call them *Les Etoiles*; the English *The Hogsties*. Some cocoa nut trees have been planted on one of them. The *wreckers* find considerable employment here. A key a little W. of these rocks is known by the name of *Ragged Island*. They are all uninhabited.

MAYAGUANA.

This island lies 25 leagues W. N. W. of West-Caicos, and 18 N. E. by E. of the Hogsties. It is 25 miles long, has a reef at the E. end, and is uninhabited. The *French keys*, 8 leagues N. W. by N. of the S. W. point of Mayaguana, are dangerous reefs.

CROOKED ISLAND GROUPE.

This groupe includes Castle island, Crooked island, Acklin's island, Atwood's keys. Castle island, 16 leagues S. W. of the French keys, is small, has a shore of bright sand, and is not inhabited. A large white rock on the S. of it looks like an old castle.

Crooked island consists of two parts making nearly a right angle with each other. The northern runs 30 miles E. by S.; the southern is about 35 miles long and the mean breadth of the whole 8 miles. Pittstown, the capital, a little village, is on the outer angle. The London and Jamaica packets stop here every month. At a small distance from it is a remarkable bank, called the Bird Rock, in lat. 22 48 N. lon. 73 55 W. Crooked island was not inhabited till 1783, when a number of royalists from Georgia and Carolina, who at first took refuge in East-Florida, removed here. In 1798, there were 40 plantations, with between 2000 and 3000 acres of cultivated land, and 1000 negroes on the island. It contains extensive forests and a number of salt ponds. There are two singular caves in the cliffs on the shore. Vessels go from Crooked island, by the help of the trade wind, to Providence, in 48 hours. It takes a much longer time to return. *Long key* lies in the bay between the two parts of the island. Its salt ponds are extensive. A gentleman with 40 negroes raked 35,000 bushels in a few months in 1802. *Acklin's island* is separated by a narrow channel from Crooked island. *Atwood's keys*, 12 leagues E. N. E. of the Bird Rock, are sandy, rocky, and barren.

LONG ISLAND.

The southern part of this island lies directly W. of Crooked island. The N. end is under the tropic. The Indians called the island *Yuma*. It is 100 miles long, from S. E. to N. W.; and on an average 3 broad; and is the S. E. border of the great Bahama bank. It was settled before the American war; and a few years after the peace of 1783, contained 4000 acres under cultivation, and 800 slaves. Its soil is a good deal exhausted. A good carriage road runs 100 miles along the S. W. coast. The island contains two large salt ponds.

EXUMA.

This lies on the border of the Great bank, N. W. of Long island. The Exuma sound separates it from Guanahani. It is about 40 miles long, and 3 wide. Little Exuma, or Stocking island lies N. W. of it. The number of slaves on both, in 1788, was about 800. The larger island has, on the N. E. side, one of the best ports for small vessels, in these seas. It is a port of entry. A great number of keys N. W. of Stocking island, skirt the bank the whole way to New Providence.

WATLING'S ISLAND.

This lies about 60 miles N. E. of Long island, and is one of the most thriving spots in the Bahamas. It has been settled but a few years. *Rum key* lies between them, and contains one plantation.

GUANAHANI.

This is the Indian name. Columbus called it *St. Salvador.* It is the *Cat Island* of the English sailors, and the first land visited by Columbus. It is upwards of 100 miles long from N. W. to S. E. and extremely crooked. Royalists, from the southern states, settled it in 1783 ; and, in 1788, it contained 40 heads of families, 16 planters, 458 slaves, and 2000 acres of cultivated land. Port Howe, on the S. side, is the principal village. The soil is good. A number of small islands, and keys, lie W. of it, in the same groupe. The Guanahani bank is of considerable extent. The principal island skirts its E. side.

ELEUTHERA AND HARBOR ISLANDS.

Eleuthera is separated, by the Ship's channel, from Guanahani, and by Rock sound, from the Great bank ; and is about 90 or 100 miles long, and 4 or 5 broad. Harbor island, adjacent on the N. is small. Before the American war, the first contained 119 white heads of families, the last 94, and 350 slaves. Eleuthera had then 725 acres of cultivated land. The *croton eleutheria*, a medicinal shrub, whose bark is sometimes substituted for the Peruvian, grows here. A chain of keys, stretches between the N. end of Eleuthera, and New-Providence.

NEW-PROVIDENCE.

The shape of this island, is that of a rhomboid. Its greatest diameter from E. to W. is 35 miles ; its least from N. to S. 27. It lies directly W. of Eleuthera, and flanks the N. W. corner of the shorter arm of the Great bank. Nassau, the capital of all the Bahamas, is on the N. side of the island. Its harbor is formed by a long narrow slip of land, called Hog island, running from E. S. E. to W. N. W. Several small keys near the W. end of this, render the harbor almost completely landlocked. The body of the town is on the S. side of the harbor, and extends on a pretty steep acclivity, to the summit of a ridge, which runs in the general line of the coast. The streets are regularly disposed, and remarkably well paved. The town is as well built as any in the West-Indies. The houses are chiefly of stone, the materials of most of which were brought from the Bermudas, a distance of more than 200 leagues. The discovery of several excellent quarries in the island has remedied this great inconvenience. In the western part of the town is a large open square, the N. side of which, near the water, is bounded by palisadoes. Immediately S. of this square, on the ridge, are a large fortress and barracks for the troops. There are two churches, for one of which the legislature voted 5000*l.* at one session ; and a new court house, and gaol, and a work house. In 1803, 10,000*l.* had been appropriated for building an elegant house for the governor general. In 1801, the town contained 1599 whites, 752 free blacks, and 3861 slaves ; total 6212. It is divided into 2 parishes, each of which has a rector, supported liberally, partly by the inhabitants, and partly by the English society for propagating

the gospel. The commerce of the town is extensive ; and is carried on with England, with the West-Indies, and with the United States, which supply it with live stock, and provisions. The environs of the town consist of gardens, pastures, pineries, and orange groves. The roads along the shore, for some miles on each side of the town, are excellent The climate is delightful.

The great body of the island is uncultivated, and its soil is generally inferior to that of most of the others.

ANDROS.

This island lies 10 leagues W. of New-Providence on the opposite side of Providence bay, and on the E. border of the larger arm of the Great Bahama bank. It is long and narrow, possesses a light soil, and is rocky. In 1788, it had 813 cultivated acres, 22 white heads of families, 7 planters, and 152 slaves. The islands of the Holy Ghost lie in a line with it to the S. E. The *Berry islands*, rocky, and uninhabited, are a little N. E. of Andros, near the N. E. corner of the bank ; and directly W. of them lies a cluster of islets, called the *Biminis* ; N. and S. of which are a great number of keys.

ABACO.

This was the *Lucaya* of the Indians, and is 12 leagues N. W. of Harbor island ; the N. W. channel dividing them. Little harbor, on the E. coast, is one of the best in the Bahamas. The Hole in the Wall, the S. E. extremity of Abaco, is a point well known to sailors. In 1789, 2000 acres had been cleared. Many of the settlers have since deserted it. Abaco skirts the Little Bahama bank on the S. E.

GREAT BAHAMA.

Although this island has given name to the whole groupe, yet it is absolutely uninhabited. The gulf of Florida 19 leagues broad, divides it from the coast of East-Florida. It is 63 miles long, and 9 wide, and is covered with fine thrifty forests. It stretches its whole length on the S. W. border of the Little bank.

GREATER ANTILLES.

SITUATION. ABORIGINES. ISLANDS.

Situation. THIS groupe lies between lon. 65 30 and 85° W. and between lat. 17 40 and 23° N. Cuba, Hispaniola, and Porto Rico, lie in a line, from E. S. E. to W. N. W. Jamaica is S. of Cuba, and W. of Hispaniola.

Aborigines. The original inhabitants of all the West-Indies, except the Bahamas, were *Arrowauks*. At the time of the discovery they were the sole possessors of the Greater Antilles, and the chief

possessors of Trinidad. From the other islands they had been exterminated by the Caraibes. These last represent the Arrowauks as descended from the Arrowauks of Guiana; and Raleigh, who visited Guiana in 1595, pronounces the tribe of this name in that country, to be the same people with the Arrowauks of Trinidad. The researches of Bancroft leave no room for doubt. All the islanders of this name had a common origin, spoke one language, possessed the same institutions, and practised the same superstitions.

Their color was a clear brown, resembling that of a sun burnt, Spanish peasant. The hair was uniformly black and straight, the features hard and unsightly, the face broad, and the nose flat. The natural form of the head was altered by depressing the *sinciput*, or fore part of the head, from the eyebrows to the coronal suture; which gave an unnatural thickness and elevation to the *occiput*, or hinder part of the skull. Generally there was something pleasing and inviting in the expression of the countenance. It was an honest face, (says Martyr) coarse, but not gloomy; for it was enlivened by confidence, and softened by compassion. In stature they were taller, but less robust than the Caraibes. Their limbs were pliant and active, and their motions displayed ease and gracefulness. They wore only a slight covering of cotton cloth round the waist, which in the women depended to the knees. Children went entirely naked.

They believed in one supreme, invisible, immortal, and omnipotent Creator, named *Jocahuna;* but admitted, at the same time, a plurality of subordinate deities. Their idols, called *Zemi*, were not regarded as symbolical representations of their subordinate divinities, but as real deities, and were universally hideous and frightful. Their priests, or *Bohitos*, consecrated one house in each village to the worship of the *Zemi*. They believed in a future state of rewards and punishments. Their *Coyaba*, or elysium, was a place of indolent tranquillity, abounding with delicious fruits, cool shades, and murmuring rivulets, and free from droughts and hurricanes.

These islands were divided into great kingdoms, subject to powerful caciques or hereditary monarchs. There were 5 in Hispaniola, several in Cuba and Jamaica, and but one in Porto Rico. The crown always descended to the male children of the principal queen, according to seniority; and, in default of these, to the brothers of the cacique, and next to the sons of his sisters, to the exclusion of his own children by his inferior wives. Each kingdom was subdivided into numerous principalities; the princes of which held them by the *tenure of service*. The regal authority was absolute, but was administered with great mildness.

Edwards fixes on 3,000,000 as the aboriginal population of the Greater Antilles. Peter Martyr, on the authority of Columbus, states that of Hispaniola at 1,200,000; that of Cuba was estimated at 1,000,000; and the remainder were probably nearly equally divided between Jamaica and Porto Rico.

The Arrowauks were a mild, and comparatively a cultivated

people. The climate and the fertility of the islands naturally rendered them indolent. That necessity, which urges men to action, and, by exercise, invigorates the fibres, was here unknown. They were extravagantly attached to dancing; devoting the cool hours of night, from evening to dawn, to this employment. In their national dances as many as 50,000 men and women were frequently assembled at once, and the dancing was attended with historical songs called *arietoes*. Another diversion, called *bato*, nearly resembled the game of cricket. They lived in villages. Their furniture and utensils were various and elegant; particularly their earthen ware, chairs, hammocks, and implements of husbandry. Some of their *piraguas* were navigated with 40 oars; and, generally, they were covered with awnings of mats and palm leaves, and built of cedar or the great cotton tree hollowed. Yams, maize, and maniac were the chief objects of their husbandry; of the last their *cassavi bread* was manufactured.

Many instances are recorded of their generous and compassionate turn of mind, of their benevolence and hospitality. Excessive sensuality was the predominant defect in their character. Though the *syphilis* prevailed in Europe long before the discovery of America; yet the Spaniards caught a species of the contagion in these islands immensely more virulent and deadly. In this way the natives have been terribly avenged. We believe that none of the descendants of the insular Arrowauks are now to be found, except a few that reside in a little town in Cuba, called *Iwanee*, near St. Jago de Cuba, who have adopted the Spanish language and manners; unless some of the Indians in the eastern part of Trinidad belong to this nation; but if we are rightly informed these are only *Caraibes*. The great body of the nation in the Greater Antilles were exterminated within 20 years after the discovery of Columbus. Their ancestors, the continental Arrowauks, are, however, at present, a distinct tribe in Guiana.

Islands. The Greater Antilles consist of 4 large islands, viz.

Cuba	Jamaica
Hispaniola	Porto Rico

CUBA.

This is the most western of the West-India islands, and larger than all the rest. It lies between lon. 74° and 85° W, and between lat. 19 45 and 23° N. It is 700 miles long, from E. S. E. to W. N. W; and, in the widest part, 150 broad; containing about 54,000 square miles. Nicholas and Old Bahama channels lie between it and the Bahama bank, on the N. E; and the Windward channel, on the E. divides it from Hispaniola. The distance across from point Maysi to the Mole is 45 miles. The distance from cape Cruz to Jamaica is 90; and from cape Sable in Florida, to Cuba 130; but from the edge of the Florida bank, only 90. It is divided into 18 jurisdictions.

Columbus called this island *Juanna*, in honor of the prince, the son of Ferdinand; but it soon resumed, and has ever since retained,

its native name of *Cuba*. Columbus discovered it on the 27th of October, 1492, but supposed it to be a part of the continent. Sebastian de Ocampo ascertained that it was an island in 1508. A body of troops from Hispaniola, 300 in number, under Diego Velasquez, conquered the island in 1511. Havanna, the capital, was built by Velasquez in 1519; taken by the Buccaneers in 1669, and by the English in 1761.

The inhabitants are catholics. There are two bishoprics. The oldest, that of St. Jago de Cuba, comprehends the eastern half of the island; and was established originally at Baracoa, and afterwards removed to St. Jago. That of Havanna was not erected till 1788. This island was at first a part of the viceroyalty of Mexico. We have not been able to ascertain the year, in which, with Porto Rico, it was erected into a captaingeneralship; nor the year, in which Porto Rico was taken from it and made a separate government. A royal audience is established at Principe; and cabildos and other inferior courts in the various towns and villages.

M. Thiery, according to an enumeration which he saw in the house of the governor in 1788, estimated the population at 266,000. Since that period it has been much increased by emigrations from Spain, and from the Spanish part of St. Domingo; and is probably, at present, not less than 350,000.

The regular troops at the Havanna are 2 regiments of veterans, 2 of light infantry, and 1 squadron of dragoons; in all 10,000. The militia of that town are 1600. In the other large towns, bodies of regular troops are also stationed, and a militia is found all over the island.

The men wear the Spanish cloak richly laced. The women wear a petticoat and corset, with an apron of gauze and muslin. They plait the hair, and wear massy bracelets of gold. They have pale complexions, dark, expressive eyes, and graceful forms; but are rarely handsome. Many of them are acquainted with music and embroidery. Riding out in the evening, and attending mass, are their common amusements. The houses are not elegant. The furniture is often gilt, but there are few mirrors, and no carpets. The inhabitants are excessively fond of bull fighting and cock fighting. Balls are another favourite amusement, and no invitation is necessary. Their funerals are conducted in a most sumptuous manner. The common breakfast is coffee, or chocolate, with *chuleta*, or ribs of fresh pork fried in hog's lard. At dinner a usual dish is *agiaco*, of so hot a seasoning, that a stranger who tastes of it, will shed tears before he is aware. The supper is rice seasoned with salt and lard, broiled flesh, and sallads. Sweetmeats and sugar pressed from the cane are the usual desert, both at dinner and supper. Turtle is the common food on fast days, and is remarkably fine and tender.

The language of the inhabitants is an impure Spanish. Its common appellation is the *Creole-Spanish*. The mode of education adopted is ridiculous. The Aristotleian philosophy is alone taught, and the other branches are much the same as were in vogue during the dark ages. The university at the Havanna was founded in 1774.

It has 1 professor of philosophy, 2 of theology, and 2 of Latin. The state of the common schools is deplorable.

The Havanna is the largest town. It is on the N. side of the island, about 45 leagues from cape Sable, and 80 coastwise from cape San Antonio. Its harbor is one of the best in the world. The entrance is by a narrow channel half a mile long, difficult of access, and strongly fortified the whole distance, with platforms, works and artillery. The celebrated castle of Moro, fort San Carlos, and fort Diego, also protect the town. No less than 800 cannon are mounted on all the works. The rivers Lagida, and Almendariz, fall into the harbor E. of the town. The harbor is a league in breadth, and capable of receiving 1000 ships of war. It has 6 fathoms of water, and is so safe that vessels ride securely without casting anchor.

The shape of the town is semicircular, the diameter being formed by the shore. It is built on the W. side of the harbor. The squares are irregular, and the streets narrow, some of them are paved with iron wood, which is extremely durable. The houses are disfigured with heavy balconies, and wooden railings, and are by no means elegant. There are 11 churches in the town, all richly ornamented, several monasteries, and 2 hospitals. The arsenal is a superb edifice. The population has been estimated, by an intelligent traveller, at 70,000. A great deal of wealth is collected here. The number of cabriolets is 3000. The commerce of the town is more extensive than that of any other in Spanish America. Provisions are plentiful and cheap.

Principe is the residence of the audience, and the proper capital. It stands near the centre of the island, and is said to be nearly as large as the Havanna.

Bayamo, or St. Salvador, is near the S. coast, on a river which empties into a large bay, of the same name, and contains 12,000 inhabitants.

St. Jago de Cuba, farther east than Bayamo, on the same coast, is surrounded by a hilly country, and has a spacious and secure harbor; the entrance being by a channel 2 leagues in length, and defended by a castle. The population is said to amount to 35,000 or 40,000.

San Carlos de Matanzas lies about 20 leagues E. of the Havanna, has a good port, and 7000 inhabitants.

Holguin, 30 miles E. of Trinidad, and Guiza, contain each 6000.

The commerce of the island is chiefly in the hands of Catalonian merchants. The principal imports are hardware, linen, silk, clocks and watches, wines and spices. The great articles exported are sugar, tobacco, chocolate, coffee, wax, cotton, mahogany, fruits, cattle, and swine. In 1792, the export of sugar was afterwards of 2,000,000 arrobas; that of tobacco 120,000 arrobas for the manufactory at Seville, while 14,000 were reserved for the use of the island and the other colonies; that of wax at 20,000 arrobas; and that of cotton, 6000. In that year, 121 cargoes of negroes were imported.

Northern winds alone prevail in November, December, and January, and render the climate cool. They are also the most preva-

lent during the three following months. It is however the coolness of spring, and not of winter. The weather is very hot the rest of the year. The rains commence in June, and last till October. July and August are the most rainy months. Thunder storms are then almost of daily occurrence, and hurricanes are common. The leprosy was introduced from Carthagena, and has made considerable ravages. Syphilis will be a common disease in every tropical Spanish colony. Few of the inhabitants outlive 60. Longer life is generally attended with a loss of the faculties.

The land near the sea is generally level, except in the S. E. part of the island. All the interior is mountainous. The soil is every where very productive. It is doubted whether there is so large a spot of ground on the globe, more fertile than this. There are 6000 plantations, and 3700 farms. Not 100th part of the island is under cultivation. *Sugar* is now the capital article of agriculture. There are upwards of 600 sugar mills in the whole island. The canes grow to the height of 8 or 9 feet. *Cacao* is of the next importance. The celebrated *tobacco* of Cuba attains the height of 5 feet. It is first planted in a nursery, and is transplanted in wet weather, to the plantation. It is thought the finest that grows in America. The best sort is that called *de la vuelta de abaxo*. Coffee is an object of general attention. The quantity of cotton raised is considerable. Ginger, long pepper, mastic, maniac, and aloes, are extensively cultivated. Bees were introduced, by emigrants from Florida, in 1763. They were soon dispersed all over the island. In 1777, 715,000 pounds of honey were exported. The bees wax of Cuba is thought equal to that of Venice. In 1792, there were 1000 herds of cattle, 580 yards for feeding swine, and 700 for cattle, in the island. The cattle and hogs are fine. The island abounds also with horses, mules, and sheep.

The rivers are all short, none of them running more than half of the width of the island. Of bays, that of Bayamo formed by cape de Cruz is the largest. Xagua bay, one of the best in the West-Indies, is 16 leagues W. of Trinidad, and 5 in circumference. It has a narrow entrance and is perfectly safe. Honda bay is 30 leagues W. of the Havanna. The most noted capes are, cape San Antonio in the W; cape Cruz in the S; cape Maysi in the E; and cape Yeacos, the most northern land in the island.

A chain of mountains runs from E. to W. from cape Maysi to cape Antonio. The Paps of Managua, a little S. E of Havanna, are the highest summits. They often look above the clouds. Saddle hill, near Honda bay, is a well known eminence. The course of the ridge thence to cape Antonio is S. W. and its name the High Lands of Buenarista. The Pan of Matanzas near San Carlos, and the Anvil near Barracoa, are landmarks of the sailors.

The cedar of Cuba is its most valuable tree, and is chiefly used in ship building. The mahogany, ebony, iron wood, granadillo, guaiacum, the palm, and oak, are also abundant. All the fruits of the West-Indies grow in perfection. Great quantities of drift wood are blown on the N. coast in the winter, probably from the mouths of the Missisippi.

The wild boar is still found in the island. Black cattle and hogs fill the forests. The most common birds are the mocking bird, parroquet, turtle dove, partridge, and waterfowl. The *cayman*, or alligator, is less fierce than on the continent. The sting of the scorpion and millipede is cured by rubbing the part with garlic. Snakes abound, but are not venomous. Mullets and shad are the principal fish. Turtles are very abundant on the coast.

There are mines of excellent copper in the eastern part of the island, which supply the other colonies with domestic utensils.

Pinos, or the Isle of Pines, lies S. W. of Xagua bay, about 20 miles from the coast; and is 25 leagues in circumference. It is mountainous, and covered with pines. We do not know whether it is inhabited.

HISPANIOLA, ST. DOMINGO, OR HAYTI.

Hispaniola lies between lat. 17 40 and 20° N.; and between lon. 68 30 and 74 30 W. Its length, from cape Engano to cape Tiburon, is 430 miles. Its greatest breadth, from cape Beata to point Isabella, is 160. It contains about 28,000 square miles. The Windward channel separates it from Cuba and Jamaica. The Mole is about 40 miles from port Maysi; and cape Tiburon 120 from point Morant in Jamaica. Cape Engano lies about 80 miles from cape St. Francis, in Porto Rico.

The natives called this island *Hayti*, a name which Dessalines lately revived. Columbus named it Espanola, or Little Spain: which, in pronunciation, nearly resembles the *Hispaniola* of the English. Bartholomew Columbus named the town of *St. Domingo* after his father, Domingo Columbus. From the town the name was at length transferred to the whole island. Columbus discovered the island on the 6th of December 1492, on his return from Cuba; and landed the same day, at a small bay, which he called St. Nicholas. Here he left 38 Spaniards and sailed for Spain, Jan. 4th, 1493. This was the first European colony in America. Columbus founded a second town on the N. coast in November of the same year, and called it Isabella. His brother Bartholomew founded the town of St. Domingo in the S. E. part of the island in 1496, which thenceforth became the capital, and the chief focus of population. Sir Francis Drake pillaged the capital in 1536. The French buccaneers from Tortuga established themselves on the west end of the island about the year 1655. About 10 years after, this colony attracted the notice of the French government, which deputed Bertrand Dogeron to transform them into civilized beings. He introduced French women among them, reconciled the idle to labor, and allured new inhabitants to the island. In 1669 the number of planters amounted to more than 1500. Cape François was built by Gobin, in 1670. The culture of the sugar-cane was introduced in 1688. The planters, in 1695, made a descent on Jamaica, and carried off a considerable number of negroes. The next year, the English, from Jamaica, plundered Cape François, and reduced it to ashes. Spain ceded the western half of the island to France, by the treaty of Ryswick, in 1697. Port au Prince, in 1702, was made the seat of government.

In 1722 the French colony was freed from the yoke of exclusive trading companies. This was the era of its commencing prosperity. A company was formed at Barcelona, in 1757, to build up the Spanish colony which had always languished; but the decree of Charles III. in 1765, opening a free trade to all the Windward islands, first gave it life and activity. A new line of demarcation was run between the two colonies in 1776.

An alarming insurrection of the negroes broke out, in the French colony in 1791; which deluged half of the northern province in blood. The national assembly, in 1792, proclaimed the political equality of the whites, and free people of color. The commissioners of the French government, in 1793, decreed the emancipation of all the slaves in the colony. On the 21st of June, Macaya, a black, at the head of 3000 negroes began an indiscriminate slaughter at Cape François. An expedition from Jamaica, in June, 1794, landed at Tiburon, and in a few days captured L'Acul, Leogane, Bigoton, Jean Rabel, and Port au Prince; when the yellow fever drove them off. Rigaud, a mulatto, and Toussaint L'Overture, at the head of a body of blacks, immediately occupied the towns the English had deserted; and also retained all the northern province, except the Mole and Fort Dauphin. Spain ceded the eastern part of the island to France, July 22d, 1795, and the Spaniards all withdrew to Cuba and Porto Rico. The English renewed the attack, in 1795 and 1796, and were repulsed by the same disease. Toussaint received the appointment of general in chief, from the French government, in the latter part of 1796. In 1798, the English gave up their designs on the island. The blacks proclaimed themselves independent, July 1st, 1801. General Le Clerc arrived at Samana, Dec. 28th of the same year. During a truce, the treacherous Le Clerc surprised Toussaint, his wife, and children, on their plantation, and conveyed them, on board a French vessel, to France. He was carried to the island of Elba, and there assassinated by order of Buonaparte, in 1803. Toussaint was the best man, and one of the greatest, whom the French revolution called forth. Dessalines was proclaimed his successor.

By the month of November, 1803, the French troops had lost every place in the island, except Cape François; and, on the 30th of that month, they were obliged to quit the cape, and surrender to an English squadron. The Independence of the island was reproclaimed, Nov. 29, 1803. Dessalines was invested with the government for life, in May, 1804; and assumed the title of JACQUES I. EMPEROR OF HAYTI, Sept. 8. He was killed in a conspiracy, not long afterward. Christophe is his successor, with the title of HENRY I. EMPEROR OF HAYTI. His court is modelled much on the plan of Buonaparte's. He possesses the N. side of the island, from the Mole to the Spanish boundary. Petion is at the head of the republican party, and has assumed the title of *President of Hayti*. He is said to be a man of mild manners. His party consists chiefly of mulattoes. He occupies the S. side of the island, from cape Tiburon eastward to the Spanish boundary. Christophe and Petion rose into consequence on the death of Dessalines. Their quarrel

has been long and bloody. There has recently sprung up a third party, under Philippe Dos, an élevé of Toussaint. Seated among the populous and fertile mountains of *Mirbalais*, in the centre of the island, near the Spanish frontier, he has adopted a defensive system, pledging himself never to invade his enemy, till first attacked. The growth of his power has been rapid. The Spaniards, in 1808, assisted by the English, retook the eastern part of the island. St. Domingo is now their capital. They are on friendly terms with the party of Christophe. Their territories enjoy profound peace, while the western end of the island is torn by contending factions.

The aborigines went entirely naked, but had made some advances towards civilization. They cultivated maize, and wore gold ornaments. They were governed by 5 caciques, who ruled, each over a different division of the island. According to Columbus, they were the most unoffending, gentle, and benevolent of the human race. To gratify the avarice of the Spanish court, Columbus, in 1495, imposed a tax on all above 14. This occasioned a war, in which many of the natives were destroyed. Ovando, the governor, from 1500 to 1509, nearly exterminated them. To supply their place 40,000 were brought from the Bahamas. An enumeration was made of all the Indians in the island in 1517, when their whole number did not exceed 14,000. They were then sold to the planters; and, by the middle of the 16th century, scarcely 150 remained alive. It ought here to be remarked, that the Spaniards associated with the female Indians, and that the issue of this mixture, called *mestizos*, were free. For a long time they were numerous in the colony, after the pure Indians were exterminated.

The Catholic religion was established in both colonies previous to the late revolution. Christophe has established it since, and has a white archbishop.

We know not whether the Spanish colony, since its reestablishment, in 1808, is governed, as formerly, by a captain general, and a royal audience, established in the town of St. Domingo.

The population of the whole island was never exactly ascertained, nor that of the French part, but in one instance. That of the Spanish colony was in the year

1717		18,410
1795	110,000 whites and mulattoes 15,000 slaves	125,000
1810	73,000 whites and mulattoes 30,000 slaves	103,000

That of the French colony was in the year

1754	14,000 whites 4,000 mulat. 172,000 slaves	190,000	1788	27,717 whites 21,808 mulat. 405,564 slaves	455,089
1767	206,000 slaves				
1775	32,600 whites		1790	30,831 whites 24,000 mulat. 480,000 slaves	534,831

That of the whole island was estimated as follows in the year

1797	40,000 whites 28,000 mulat. 452,000 slaves	520,000	1801	42,000 whites 44,000 mulat. 600,000 slaves	686,000

The blacks in the French part of the island have greatly diminished since 1801. Christophe maintains about 10,000 troops; and has 2 corvettes, 9 brigs, and several schooners, commanded by a white admiral. His ships have made some depredations on American commerce. Petion musters about 9000 men, but has no fleet. Philippe Dos has increased his numbers to more than 6000. The whole physical force of the island must be of some moment, for the French army, under Le Clerc, consisted of 20,000 regular troops; yet the blacks destroyed the greater part of it, and drove the rest out of the island.

The Spanish colonists were among the most indolent of mankind. The French were distinguished for their industry. Both were extremely vicious. Slavery and the climate had putrified the morals of both colonies. The blacks, who have now entire control over the French part of the island, have the character and manners, which their circumstances have formed. They grew up without instruction, or any knowledge of moral obligation. Previous to the revolution, they were involved in slavery; and since that period they have been engaged in constant quarrels with the whites or with each other. They were taught, by the infamous Le Clerc and his companions, all the arts of fraud, treachery, and cruelty; and, since that time, have found, in a long continued civil war, every opportunity of reducing them to practice.

Cape François before the revolution was the largest town in the west part of the island; and contained between 800 and 900 houses of stone or brick, 8000 free inhabitants, and 12,000 slaves. It lies on a bay on the N. side of the island, at the foot of a very high mountain, called *Le Morne du Cap*, about 30 leagues E. of St. Nicholas, and 15 N. E. of Gonaives. It has an excellent harbor, and its commerce was formerly very great. The duties on exports, in 1789, amounted to $253,590·37.

Port au Prince is at the head of the large bay, which sets up on the W. end of the island. It was the seat of government, and had an excellent harbor, but was very unhealthy. In 1790, it contained 600 houses, 2754 whites, and about 12,000 negroes. It had a valuable commerce. The duties on exports, in 1789, amounted to $189,945·46.

St. Domingo, the capital of the Spanish colony, is about 30 leagues from the E. end of the island, on the W. bank of the Ozama. The harbor is large, but not very secure, and has a rock at the mouth, over which there is only 8 feet water. The streets are straight, and spacious, crossing each other at right angles. Ten run from N. to S. and 10 from E. to W. The houses are built of *tapia*, like those in Caraccas, simple, and uniform. The cathedral is a noble Gothic pile, in which the ashes of Columbus rested, till 1796, when they were removed to the Havanna. There are 3 parochial churches, 3 monasteries, 2 nunneries, and 3 hospitals. The population of the town, about 12 years since, was not less than 25,000. It was estimated at 20,000, in 1810.

St. Nicholas, or The Mole, was the first European settlement in America. Its harbor is strongly fortified both by nature

and art, and is extremely safe and convenient. This was the healthiest town in the island.

Leogane lies on the S. shore of the Bite. Its commerce was extensive. The duty on exports in 1789, amounted to $26,103·70.

St. Mark lies about half way between Port au Prince and Gonaives, at the head of a bay setting up from the Bite. It was the pleasantest town in the island, and the duty on exports, in 1789, amounted to $116,974·04.

The other towns in the French colony were Fort Dauphin and Port de Paix on the N.; Petit Goave in the Bite; and Cayes and Jacmel on the S.

Monte Christi, on the N. side of the island, belonged to the Spaniards, and contained 3000 inhabitants. It was a well known resort of smugglers.

The roads in the Spanish colony were miserably neglected, and the traveller found no accommodations. The reverse was the case in the other part of the island.

The average amount of exports from the French colony, in the years 1787, 1788, and 1789, and the actual amount in 1791, were as follows:

	Average of 3 years.		1791.	
		livres.		livres.
Clayed sugar	lbs. 58,642,214	41,049,549	70,227,708	67,670,781
Muscovado	lbs. 86,549,829	34,619,931	93,177,512	49,941,567
Coffee	lbs. 71,663,187	71,663,187	68,151,180	51,890,748
Cotton	lbs. 6,698,858	12,397,716	6,286,126	17,572,252
Indigo	hhds. 951,607	8,564,463	930,016	10,875,120
Cacao	lbs. ———	———	150,000	120,000
Molasses	hhds. 23,061	2,767,320	29,502	1,947,132
Tafia	hhds. 2,600	312,000	303	21,816
Raw hides	No. 6,500	52,000	7,887	78,870
Tanned do.	No. 7,900	118,500	5,186	93,348
Tortoise shell	lbs. ———	———	5,000	50,000
Guiacum, acajow and mahogany	lbs. ———	———	1,500,000	40,000
	Livres	171,544,666	Livres	200,301,634
	or	$22,030,269	or	$25,723,312

The amount of duties paid in 1791 was 6,924,166 livres. The imports from France, in 1788, amounted to 86,414,040 livres. The three principal articles were dry goods, wines, and flour. These importations were made in 580 vessels, measuring 189,679 tons. In the same year 98 French vessels imported from Africa 29,506 negroes, which sold for 61,936,190 livres. The imports from foreign countries, in that year, were 16,538,820 livres, in 1022 small vessels, measuring 71,162 tons; making a total of imports in 1788 of 164,889,050 livres, in 1700 vessels of all descriptions. This is exclusive of the inland trade with the Spaniards.

The temperature of Hispaniola does not differ materially from that of Cuba. There is a great number of *esters*, or salt marshes, which render many parts of it unhealthy. The mountains occasion

a considerable diversity of climate in the different parts of the island. In the north the rainy season commences in August and ends in April; in the south it lasts from April to October. In May, June, and July, the heats are excessive. The English army suffered severely from the yellow fever in 1794, and several following years; and the French army in 1802. The climate is, however, very healthy to the negroes, and will prove a powerful ally to them in case of invasion.

A part of the interior is mountainous; but in the eastern part of the island are extensive plains or savannas, occupied by immense herds of swine, horses, and horned cattle. The plain of Cul de Sac, in the W. 40 miles long and 9 broad, lies between Port au Prince and St. Marc. The plain of Cape François extends 20 leagues from E. to W. and on an average 4 into the interior.

The soil, in general, is fertile in the highest degree, well watered, and producing every variety of vegetable for use and beauty. The following tables will exhibit the state and progress of agriculture in the French colony:

Produce of the different plantations.

	1720.	1788.
Sugar	lbs. 22,400,000	163,405,500
Indigo	lbs. 1,200,000	150,000
Coffee		lbs. 6,289,000
Cacao		lbs. 150,000
Molasses		lbs. 34,453,000

Number of the different plantations, &c.

	1754.		1789.
Sugar plantations	599		792
Indigo plantations	3,379		3,097
Coffee plantations			2,810
Cacao trees	98,946	plantations	69
Cotton plants	6,300,367	plantations	705
Cassia trees	22,000,000		
Horses and mules	63,000		
Horned cattle	93,000		
Banana trees	6,000,000		
Potatoe plots	1,000,000		
Yam plots	226,000		
Trenches of maniac	3,000,000		
Cultivated acres			2,290,000

Far the greater part of the Spanish province, in 1789, was still a wilderness. At that time they had only 24 sugar works. Their chief business was hunting wild cattle in the plains. About 11,000 head of horned cattle were annually furnished to the French colony, besides great numbers of horses and mules. Immense quantities of hides were also exported.

The river Yuna flows upwards of 70 miles through the valley of Vega Real, in an E. S. E. direction, and empties into the bay of Samana. It is navigable, 13 leagues, to Cotuy.

The Monte Christi, or the Yaqui, heads near the Yuna; and runs W. N. W. about the same distance, to the bay of Monte Christi.

The Ozama runs in a S. S. E. direction and empties below St. Domingo. It is navigable about 30 miles, and rolls a large volume of water to the sea. For a league it is 24 feet deep, and its banks are 20 feet high. Over a rock at the mouth the depth is but 18 feet. Its water is of a red color, and the Isabella is its largest tributary.

The Nieva or Neybe pursues a course E. of S. to Ocoa bay, and is one of the longest rivers on the island. The Bite, or the Bite of Leogane, is a very large bay, at the W. end of the island, setting up between cape Maria, on the S. and cape Nicholas or the Mole, on the N. These capes are 40 leagues apart, and the depth of the bay from the former is not less than 50 leagues.

Samana bay sets up at the E. end of the island, between cape Samana, on the N. and cape Raphael, on the S. These capes are 7 leagues apart. The bay is 20 leagues long, and, on an average, 5 broad. A breaker sets up from the S. side nearly across the bay, and terminates in a rock, called the *Rebels*, only 800 fathoms from point Bannister, on the N. shore. The passage is very deep, and the bay within affords shelter to any number of vessels. A large triangular bay lies N. of the peninsula of Samana, between cape Cabran and old cape François. Ocoa bay, near the middle of the island, on the S. side, puts up between capes Beata and La Catalina.

The peninsula of Tiburon, on the southern side of the Bite, commences at Port au Prince, and runs westward about 150 miles. It widens in the W.; but, in the E. is every where narrow. The peninsula of the Mole reaches 90 miles, and is much broader. The southeastern part of the island is a broad peninsula, between Samana bay and the Caribbean, reaching from the Ozama to cape Engano, 130 miles. The peninsula of Samana extends 40 miles from E. to W. and is narrow.

There is an unusual number of remarkable capes on the island. The Mole is a high bluff in the N. W. Thence eastward are cape François, point Isabella, old cape François, cape Cabran, cape Samana, cape Raphael, cape Engano, cape Espada, La Catalina, cape Beata, point Abacou, cape Tiburon, cape Donna Maria, cape St. Marc, in the Bite, and cape Foux, the S. W. corner of the N. peninsula.

There is an elevated groupe of mountains in the centre, called *Cibao*. It commences at cape Foux, in the N. W. and pursues a S. E. direction across the island, terminating near cape Espada. Three summits, near the middle of the range, are said to be about 1000 fathoms above the sea. A western spur from the principal range ends at cape St. Marc, and has only a moderate elevation. A chain in the N. E. called *Monte Christi*, commences at the bay of the same name, and terminates at the bay of Samana.

Immense forests cover the mountains, particularly in the Spanish province. The mahogany, the cedar, the guaiacum, the bitter ash, and the fustic, here flourish and die unmolested. In some places are vast groves of the thatch palm, a tree of singular beauty. Several varieties of the *cactus*, the indigo plant, and a species of red cotton, grow wild in the thickets.

Gold mines were wrought for a length of time by the Spaniards. When these were exhausted, which happened about the year 1530, the colony was deserted of most of its inhabitants, and never afterwards flourished. There are two sulphur springs in the island.

JAMAICA.

Jamaica lies between lat. 17 40 and 18 30 N; and between lon. 76 18 and 79 57 W. Its length, from Point Morant, in the E. to South Negril, in the W. is 170 miles; its greatest breadth is 60. The number of square miles is estimated by Edwards at 6000, or 3,840,000 acres; but a great part consisting of high mountains, the surface of which comprises far more land than the base, he allows on that account $\frac{1}{16}$ more, or 240,000 acres: making a total of 4,080,000. Of these 1,907,589, had been located by grants of the crown, in 1789.

Jamaica is 30 leagues from Cuba; 40 from St. Domingo, and 180 from the Musquito shore.

The island is divided as follows:

Counties.	Situation.	Towns.	Parishes.	Villages.
Cornwall	In the west	3	5	6
Middlesex	In the middle	1	8	13
Surry	On the east	2	7	8
	Total	6	20	27

The aborigines of the island called it *Jamaica*, and Columbus preserved the name.

He discovered it on his second voyage, on the 5th of May, 1494, and marked it out as an estate for his family. In 1503, on his 4th voyage, he was shipwrecked on the N. coast, and for 8 months suffered many hardships. At length he was relieved and taken off in a private vessel, fitted out at Hispaniola. The property and government of the island were soon after granted, by the king of Spain, to his family; and his son Diego removed hither and built St. Jago. Admiral Shirley, in January, 1597, invaded the island and plundered it. About 40 years afterwards, it was again plundered by a party of English, under col. Jackson. In May, 1695, an English expedition, under Penn and Venables, conquered the whole island. Ever since that time it has been in possession of the English. The runaway negroes had become so numerous and powerful in 1738, that governor Trelawney thought it necessary to make a treaty with them, and assign them a considerable tract of land.

The aborigines of the island, were early destroyed by the Spaniards.

The bishop of London claims this, and the other British West-Indies, as a part of his diocese; but his jurisdiction is renounced and barred by the laws of Jamaica. The governor, as head of the provincial church, inducts into the various rectories; and is likewise vested with the power of suspending disorderly clergymen. The 20 parishes contain 18 churches and chapels. Each parish is provided with a rector, and other church officers. The highest sal-

ary of a rector, that of St. Catherine's, is 300*l.*; that of 4 other parishes is 250*l.*; and that of the rest 200*l.* each. These sums are not collected in the form of tythes, but by a tax levied by the vestries. Each vestry is composed of the custos rotulorum; or chief magistrate of the parish; of two other magistrates; of the rector; and of ten vestrymen, elected annually by the freeholders. Each parish builds and repairs a parsonage house, or allows the rector 50*l.* per annum in lieu of it; besides which many of the parishes have glebe lands of considerable value; that of the parish of St. Andrew is valued at 1000*l.* sterling per annum.

The captain general of the island is usually a nobleman of high rank, and is appointed by the crown. His stated salary is 5000*l.*; but the perquisites are very great. The whole is not less than 10,000*l.* sterling. The legislature consists of a council of 12, nominated by the crown, and holding their places during life; and of a house of assembly, 43 in number, elected by the freeholders. The parishes of Kingston, St. Jago, and Port Royal send each 3, and the other 17 parishes 2 each. A member must have a freehold in the island of 300*l.* per annum, or a personal estate of 3000*l.*; and an elector a freehold of 10*l.* per annum. A bill becomes a law, as soon as the governor's assent is obtained. If the royal disapprobation is afterwards officially signified, it ceases to be valid. The governor is chancellor of the island; and sole ordinary for the probate of wills and granting letters of administration. He is also a high court of appeals in all capital cases, and has the sole power of pardoning. The governor and council constitute a similar court in civil cases, where the matter in dispute exceeds 300*l.*; and likewise a court of errors. The supreme court, for the whole island, consists of a chief justice and 4 puisne judges; and holds 4 sessions of 3 weeks each from the last Tuesday of February, May, August, and November, at St. Jago, in the county of Middlesex. The office of chief justice is worth 3000*l.* per annum. The assistant judges receive no salary or perquisites, and are usually planters. Three judges must be present to hold a court. An assize court sits at Kingston, for the county of Surry, on the last Tuesday of January, April, July, and October; and another at Savanna la Mar, for the county of Cornwall, on the last Tuesday of March, June, September, and December. Each session is limited to a fortnight. The judges have no salary. If an assistant judge of the supreme court be present, he presides. Appeals lie from the assize courts only to the high courts of appeals. Courts of common pleas and of sessions of the peace consist of the custos rotulorum, and of the justices of the peace for the parish. They sit every 3 months, and try actions arising within the parish to an amount not exceeding 20*l.* A single justice is authorized to determine in matters of debt not exceeding 40 shillings. Barristers must previously have been admitted to the courts of England, Scotland, or Ireland. Attorneys must have the same qualification, or they must have served 5 years as articled clerks with some attorney or solicitor in the island. The office of secretary or recorder yields 6000*l.* sterling; that of provost master general 7000*l.*; that of clerk of the supreme court formerly

yielded 9000*l.* but is now less lucrative; and that of custos brevium is also very valuable. All these are kept at St. Jago. The other important offices are those of register in chancery, receiver general, treasurer, naval officer, and collector for the port of Kingston. Most of these offices are held primarily as sinecures, by pensioners of the crown in England; and are executed by their deputies in Jamaica. Not less than 30,000*l.* is annually remitted by the various subordinates to their principals.

The revenues of the island consist of a *perpetual revenue* according to the law of 1728, amounting to 12,000*l.* of which 8000*l.* are appropriated; and of *annual funds*, provided by the legislature, amounting to 70,000*l.* of which about 40,000*l.* is a provision for the troops stationed on the island. The contingent expences, exclusive of the appropriations, in 1788 exceeded 75,000*l.* The estimated value of all the property in the island, in 1787, was as follows:

Plantations and their stock	£25,000,000
Slaves at 50*l.* per head	12,500,000
Property in towns and in vessels	1,500,000
Sterling	£39,000,000

The estimates of the population of Jamaica, in 1787, and at present, are as follows:

	1787.	1811.
Whites	30,000	40,000
Maroons	1,400	
Free negroes	10,000	350,000
Slaves	250,000	
Total	291,400	390,000

The number of whites, in 1811, we believe not to be overrated, as the great increase in the commerce of the island has lately occasioned a considerable emigration from Great Britain. The number of blacks of all descriptions was estimated, in 1800, at 300,000. The prospect of the abolition of the slave trade occasioned, for several years, a prodigious increase in the annual importation of slaves. The present number of blacks, of all descriptions, must be at least as great as we have stated it.

The number of regular troops in the island is always considerable. The militia are computed at 8000. A respectable naval force is usually on the coast.

St. Jago, St. Jago de la Vega, or Spanishtown, stands on the river Cobre, 6 miles from its entrance into Port Royal bay. In 1788 it contained between 500 and 600 houses, and 5000 inhabitants. The palace of the governor general is a superb edifice.

Kingston lies on the N. side of a beautiful harbor, opening into Port Royal bay, about 20 miles S. of E. from St. Jago. It was founded in 1693, when repeated desolations, by earthquakes and fire, had driven the inhabitants from Port Royal. It contained, in 1788, 1655 houses, beside negro huts and ware houses; and 6,539 whites, 3280 free blacks, and 16,659 slaves; in all 26,478. Many of the houses are magnificent, and the markets are excellent. Since the

surrounding country has been cleared of wood the town has been very healthy.

Montego Bay, in Cornwall, in the N. W. is an opulent, flourishing town, and in 1788 contained 225 houses, of which 33 were capital warehouses.

Port Royal stands near the extremity of a peninsula, which bounds Port Royal bay, on the S. E. It is about 10 miles S. from Kingston; and, after St. Jago, is the oldest town in the island. It contains about 200 houses, a royal navy yard, the navy hospital, and barracks for a regiment of soldiers. The fortifications are kept in excellent order, and are among the strongest in the British dominions.

Savanna-la-Mar, in the S. W. contains about 60 houses.

Falmouth is a very flourishing town in the N. W.

The climate of the coast is hot and sultry, with little variation from January to December. This is particularly true of the south coast, where the average temperature, from June to November, inclusive, is 80°, and but little cooler in the other six months. On the tops of the mountains the general state of the thermometer is from 55° to 65°. It has been observed as low as 44°.

In the north of the island the country, at a small distance from the shore, rises into hills, which are more remarkable for their beauty than boldness; being all of gentle acclivity, and commonly separated from each other by spacious vales and romantic inequalities; but they are seldom craggy, nor is the transition from the hills to the vallies oftentimes abrupt. In general the hand of nature has rounded every hill, towards the top, with singular felicity. This part of the island is well watered, and presents a vivid and delightful verdure. In the south the cliffs are rough and precipitous. The narrow vallies between, however, are susceptible of fertility; and at the foot of the lower range of hills lie vast plains or savannas, bounded only by the ocean, and displaying all the pride of the richest cultivation.

The number of acres in the island has already been mentioned, as amounting to 4,080,000. Of these only 1,907,589 had been located in December, 1791. Even all of this is not improved. The lands in cultivation were then distributed nearly as follows:

767 sugar plantations, averaging 900 acres each	690,000
1000 pens, or breeding and grazing farms, at 700 each	700,000
Plantations of cotton, coffee, pimento, ginger, &c.	350,000
	1,740,000

Edwards supposes that the remaining acres amounting to 2,340,000, are chiefly unfit for cultivation; not merely on account of the barrenness of the soil, but principally on account of its mountainous situation. Indeed, almost all of the waste land is represented by him, as covered by a rich, strong growth of timber. The land actually cultivated has a deep and very fertile soil. Sugar is the capital object of agriculture. Two thirds of each plantation are usually reserved for timber, fire wood, and pasturage. Unfortunately, the planters pay but little attention to manuring their lands,

or to a judicious rotation of crops. Raising cattle is the object of next importance, and after these indigo, coffee, cotton, pimento, and ginger. There is now a number of cinnamon plantations on the island. Maize is cultivated to a considerable extent, and yields two crops in a year of from 15 to 40 bushels the acre. Guinea corn produces but one crop. It is sowed in September, and reaped in January, and yields from 30 to 60 bushels. Various kinds of *calavances*, a species of pea, are cultivated; and a small quantity of rice. *Guinea grass* is a most valuable vegetable. It thrives in some of the most rocky parts of the island, bestowing fertility on lands otherwise incapable of cultivation. Most of the breeding and grazing farms have originated from its introduction, which happened about 60 years ago, and the cattle raised on it are equal to those in the English markets. *Scotch grass* is an aquatic plant, grows to the height of 5 or 6 feet, with long succulent joints, and is of very quick vegetation. No other species of grass is equally prolific. From a single acre 5 horses may be maintained a whole year, allowing 56 pounds of grass a day to each. Cabbages, lettuce, carrots, turnips, parsnips, artichokes, kidney beans, peas, asparagus, and various other European herbs are in the utmost abundance. The indigenous vegetables are chocho, ocra, Lima bean, Indian kale, plantain, banana, yam, *calalue*, (a species of spinach,) eddoes, cassava, and sweet potatoe.

Black river is the deepest and largest in Jamaica. It runs southwardly, is navigable for flat bottomed boats and canoes about 30 miles, and empties about 20 W. of Pedro bluff, in the S. W. part of the island.

The Coke is a small river, running by Spanishtown.

The Rio Bueno is on the N. side of the island.

Point Morant, or East Cape is the eastern extremity of Jamaica in lon. 76 10 W. and is the usual point of departure for ships bound through the windward passage. Portland Point is the most southern cape; and South-Negril the most western.

A ridge of lofty mountains, called the Blue mountains, traverses the island from E. to W. The main ridge is considerably nearest the southern shore, and its southern front is generally rough and craggy. The descent on the northern side, is more easy and gradual. Several lower ridges, parallel with the principal one, lie on the S. side of it; the summits of which are more round and smooth. The Blue mountain Peak, in the main ridge, is 7431 feet above the level of the sea.

Numerous groves of pimento are found every where on the hills, on the N. side of the island. The mountains are, in general, covered with excellent timber, such as lignumvitæ, dog wood, iron wood, pigeon wood, green heart, braziletto, and bully tree; most of which are so heavy as to sink in water. Of softer kinds for boards and shingles the species are innumerable. There are many beautiful varieties calculated for cabinet work, among others the bread nut, wild lemon, and mahogany.

Perhaps no country in the world affords so rich a variety of excellent fruits, indigenous and exotic. The *anana* or pine apple,

tamarind, papaw, guava, two species of sweet sop, cashew apple, custard apple, cocoa nut, star apple, grenadilla, avocado pear, hog plum, and its varieties, pindal nut, nesbury, mammee, mammee sapota, Spanish gooseberry, and prickly pear, are all indigenous. The orange (Seville and China,) the lemon, lime, shaddoc and its numerous species, the vine, melon, fig, and pomegranate, were probably introduced by the Spaniards. The peach, strawberry, rose apple, and genip, are also cultivated. The apple does not attain to great perfection except on the highest mountains.

The Spaniards are said to have opened mines of silver and copper; but none are now wrought. A lead mine, of considerable value was wrought some years since in the parish of St. Andrew, but the high price of labor compelled the proprietors to relinquish it.

The most important mineral spring is that in the parish of St. Thomas, in a village called Bath. The water flows out of a rocky mountain, about a mile distant. Its temperature is 123° of Fahrenheit. The water is sulphureous, and has been used with great advantage in that dreadful disease of the climate, the *dry belly ache*. There are other springs, both sulphureous and chalybeate, in various parts of the country.

The island of *Great Cayman* is equidistant from Jamaica and Cuba, and 55 leagues from each. It is inhabited by descendants of the old buccaneers, about 160 in number. Their chief business is piloting, and fishing for turtle. The soil is good, and the climate healthy.

The two *Little Caymans*, N. E. of this, are not inhabited.

Pedro shoals, or the *Bivora bank*, lie S. of the western half of Jamaica, extending upwards of 30 leagues from E. to W. The Ciscabel is a rock at the W. end; Pedro keys are near the middle; and the Portland rock, at the E. end, is 10 leagues S. of Portland point.

PORTO RICO.

Porto Rico is situated between lat. 17° 54 and 18° 30′ N. and between lon. 65° 30′ and 67° 8′ W. It is 115 miles long from E. to W. and has a mean breadth of 36; containing about 4140 square miles. Its shape is nearly that of a parallelogram.

Columbus gave the island its present name of *Porto*, or *Puerto Rico*. The natives called it *Boriquen*.

The island was discovered by Columbus on his second voyage, in 1493. Juan Ponce explored it in 1508, and effected a settlement in 1510. Within a few years the island was subdued, and the natives soon became extinct. Ponce founded the town of St. John de Porto Rico, in 1514. The earl of Cumberland took and plundered the island in 1597, but it was soon given up. The Dutch plundered the capital in 1615; and the English made an unsuccessful attack on the island, in 1797.

Porto Rico is a captaingeneralship. Originally, with Cuba, it

was a part of the viceroyalty of Mexico; then it was attached to the government of Cuba; and finally made a distinct province.

The number of inhabitants, in 1778, was 80,660. In 1795, the population received a large accession from St. Domingo, most of the Spanish inhabitants of that island removing hither. It is now estimated at 200,000.

St. John de Porto Rico, the capital, is on the N. side, about 15 leagues W. from cape St. Juan. It stands on a small island, in a spacious bay, and is connected with the main land by a causeway of considerable length. The harbor is spacious and safe, and admits vessels of any burden. The entrance is less than half a mile wide. The town is large and well built, and is the see of a bishop. It stands near the head of the harbor on the E. side, and contains about 30,000 inhabitants. The fortifications are strong and commanding. It was long the chief seat of the English contraband trade, and is considerably populous. The town is surrounded by three walls.

There are two other seaports on the island, Miaguand and Miaguesse. Miaguand is on the N. side, a few miles only E. of point Bruquen. The harbor is good and safe, few of the houses however are built near it. The body of the town is 3 or 4 miles up in the country. It contains about 5000 inhabitants.

Miaguesse is on the W. end, a few miles N. of cape Roxa. It has also a convenient harbor. The town stands 5 miles up in the country, is handsomely built, and contains about 6000 inhabitants.

Hurricanes are not unfrequent. That of 1742 was remarkably destructive. The country is pleasantly diversified with hills and vallies. The soil is generally fertile. In 1778, there were on the island 5861 plantations and farms of every description. These were then stocked with 23,195 horses, 1515 mules, 77,384 horned cattle, and 49,058 sheep and swine. The produce for that year was 2737 quintals of sugar, 1163 of cotton, 19,556 of rice, 15,216 of maize, 7458 of tobacco, and 9860 of molasses.

The farms are well stocked with poultry, and the woods abound with parrots and wild pigeons.

Cape St. Juan is the N. E. extremity of the island, cape Mala the S. E. and cape Roxa the S. W. Cape St. Francis is the termination of a promontory on the W. end not far from the N. side, and point Bruquen the N. W. extremity of the island.

CARIBBEAN ISLANDS.

THIS range extends from lat. 9 30 to 18 45 N.; and from lon. 59 30 to 65 20 W. The form of the range is the arc of a circle, commencing at Trinidad, the most southern; and bending N. E. and then N. W. to Bieque, or Crab island, the most western.

The Atlantic is on the E. and the Caribbean sea on the W. The Mosquito shore, the western coast of the Caribbean, lies 500 leagues

W. of the middle of the range. The Cape Verd islands, on the African coast, lie 35 degrees of longitude, or 780 leagues to the eastward, in the same parallels.

These islands have already been mentioned, as consisting of two groupes; the *Leeward islands* in the N.; and the *Windward islands* in the S.

The earliest inhabitants of this numerous groupe were Arrowauks; tribes of the same nation, which occupied the Greater Antilles. At a period, however, long before the discovery of America, this peaceful nation had been chiefly exterminated by the *Caraibes*, *Caribs*, or *Caribbees*, a warlike and ferocious people from the continent. Rochefort conjectures that they came from Florida, but this is clearly a mistake; for, in the first place, the remoteness of that country, and the difficulty of the voyage, render it wholly improbable; and in the next place, the identity of name and language, and their own traditions, prove that they came from South-America. The coast of the continent, between the Amazon and Oronoco has long been possessed by Caraibes. Sir Walter Raleigh found them in Spanish Guiana, near the Ownsco, in 1595; and Depons says, that they still occupy all the coast of that province. Bancroft, in 1769, says that they then possessed all the coast of Dutch Guiana, which the Dutch had not occupied. Raleigh also says, that they spoke the same language with the *Caraibes* of Dominica. The Caraibes of the islands, according to Edwards, also declared that their fathers came from Guiana, and exterminated the ancient inhabitants; but took possession of their women and their lands.

The *Caraibes*, therefore, must be considered, like the Mexicans, as one of the great nations of the continent.

The Caraibes of these islands lived in villages that had the appearance of a European encampment. Their cabins were built of poles fixed circularly in the ground, and drawn to a point at the top. They were then covered with the leaves of the palm tree. In the centre of each village was a building larger than the rest, which served as a public hall, or state house; wherein the men, excluding the women, had their meals in common. These halls were also the theatres, where their young men were animated to emulation, and trained to martial enterprize by the renown of their warriors, and the harangues of their orators.

Though not as tall as the generality of Europeans, their frames were robust and muscular; their limbs flexible and active; and their eyes possessed a penetrating quickness and wildness, that seemed an emanation from a fierce and martial spirit. Their natural complexion was that of a Spanish olive. Their hair was uniformly of a shining black, strait and coarse. They dressed it with daily care, and decorated their heads with feathers of various colors. The incipient beard was always carefully eradicated. They had a strange practice of altering the natural form of the head in infancy. On the birth of a child, its tender and flexible skull was confined between two small pieces of wood, applied before and behind, and firmly bound together on each side. This elevated the forehead, and occasioned it and the back part of the skull, to resem-

ble two sides of a square. Both sexes painted their faces and bodies with *arnotto*, so as entirely to conceal the natural olive under a surface of crimson. They disfigured their cheeks with deep incisions, and hideous scars, which they stained black; and painted black and white circles round their eyes. Some of them perforated the cartilage, that divides the nostrils, with a fish bone, a parrot's feather, or a piece of tortoise shell; and their warriors strung together, and wore on their arms and legs, the teeth of their enemies whom they had slain in battle. The women wore a buskin or half boot made of cotton on the small of the leg. In other respects both sexes went naked.

They manufactured extensively a substantial cotton cloth, and stained it of various colors, but most commonly red. Of this they made *hammocks*, or *hanging beds*; both the name and invention of which Europe has borrowed of the Caraibes. Their vessels of clay were baked in kilns, like the pottery of Europe; and were thin, smooth, and handsome. Their baskets, of the fibres of the palmetto leaf, were singularly elegant; and their bows, arrows, and other weapons had a neatness and polish, which the most skilful artist could with difficulty rival. It seems probable that here, as in South-America, there was no division of land, and only imperfect ideas of private property; that cultivation was carried on by the joint labor of each separate community; and the harvest deposited in a public granary, whence each family received its proportion of the common stock.

Polygamy universally prevailed. The women were treated as slaves rather than as companions. They sustained every species of drudgery; ground the maize, prepared the cassava, gathered in the cotton, and wove the *hammock*; nor were they allowed to eat in the presence of their husbands. Under these circumstances it is not wonderful, that they were less prolific than the women of Europe. This oppression of the female sex is undoubtedly to be ascribed chiefly to the savage character of the tribe; but perhaps partly, also, to the facts, that when the original Arrowauks were exterminated, their women were preserved, and that in all their wars the captured females were reserved as wives for the conquerors. Hence women were looked upon in some measure as prisoners and enemies. The nation is said even to have spoken two languages; one common to both sexes, which retained many words of the primitive Arrowauk; the other a language only of the men, employed in their public councils, and their martial addresses. This last was the proper Caribbean tongue.

The education of their youth was intended chiefly to prepare them for battle. To draw the bow with unerring skill, to wield the club with strength and dexterity, to swim with agility and boldness, to catch fish, and to build a cottage, were acquirements of indispensable necessity. But their capital instructions were lessons of prudence and fortitude; of courage in war; of contempt of danger and death; and of implacable hatred towards the Arrowauks. On the birth of a male child, he was immediately sprinkled with drops of his father's blood. While a boy he witnessed the butch-

ery of prisoners, partook of the horrid feast, and was often anointed with the fat. On the arrival of manhood he received from his father and others, in a public assembly, a series of long continued and cruel scourgings. The least symptom of weakness disgraced him forever. If he rose superior to pain, and baffled the attempts of his persecutors; he received a new name, was pronounced a man, and ranked among the defenders of his country. Torments more excruciating; stripes, burning, and suffocation; were the test for him who aspired to lead his countrymen to battle. In war the strictest subordination was enforced; in peace the most absolute equality prevailed, except that the old men had a kind of advisory authority.

This education inspired lofty sentiments, and an abhorrence of slavery. It prompted them also to almost constant warfare abroad. They very frequently invaded the islands of the Arrowauks (the Greater Antilles) and brought home prisoners; whom they reserved for food. The love of glory was their ruling passion. Notwithstanding their practice of polygamy and the voluptuousness of their climate, an insensibility to love was a characteristic of the Caraibes. They despised all the manufactures of the Spaniards, except fire arms; of these they felt and confessed the superiority to their own weapons. Among themselves they were peaceable; and towards each other faithful, friendly, and affectionate; but all strangers were considered as enemies.

On the birth of a first son, the father retired to his bed, and fasted with a strictness that often endangered life; but this ceremony was immediately followed by drunkenness and debauchery. On the death of a relation they despoiled their hair; and when the master of a family died, the survivors, after burying the corpse in the centre of his own dwelling, with many demonstrations of unaffected grief, quitted the house altogether, and erected another in a distant situation. On the death of a hero, captives were sacrificed.

They believed in a future state. To the souls of their heroes they allotted a sort of Mahometan paradise. Cowards were doomed to everlasting banishment behind the mountains, to unremitting labor, and to captivity and servitude among the Arrowauks. They entertained an awful sense, (perplexed indeed and indistinct) of one great and universal cause; of a superior, wise, and invisible being of absolute and irresistible power. They admitted also the agency of subordinate divinities, and supposed that each individual had his own tutelary deity. Each cottage had its own *lares* and *penates*; and in each a rustic altar was erected, composed of banana leaves and rushes, on which they occasionally placed their earliest fruits and the choicest of their viands, as peace offerings, through the mediation of their inferior deities, to incensed Omnipotence. Their devotions consisted less in the effusions of thankfulness, than in the deprecations of wrath; for they regarded the Divine Being as infinite indeed in power, but severe in his justice, and inexorable in his anger. This probably was owing to the tremendous irregularities of nature, so dreadfully frequent in their climate. They believed likewise in demons and evil spirits, and offered

them, by the hands of their *boyez*, or pretended magicians, sacrifice and worship: wounding themselves on such occasions with the teeth of the agonti. To these demons they ascribed the calamities of daily occurrence, and all the troubles, which hourly embitter life.

A few remains of the nation are scattered over various parts of the Caribbean Archipelago. But in Spanish and Dutch Guiana they still remain a formidable body, sufficiently numerous to repel the aggressions of the colonists, and possessing the proud independence, the invincible love of liberty, and the ferocious courage, which so strongly characterized their ancestors.

LEEWARD ISLANDS.

The islands thus denominated extend from lat. 15 15 to 18 45 N.; and from lon. 60 55 to 65 20 W. On the S. Dominica is the most remote; on the E. Deseada; on the N. Anegada; and on the W. Bieque or Crab island. This last is only 3 leagues from Porto Rico, one of the Greater Antilles; and Dominica is but 10 from Martinique, the most northern of the Windward islands.

The Virgin islands, Anguilla, St. Martin's, Saba, St. Eustatius, Barbuda, St. Christopher's, Nevis, Antigua, and Montserrat, all constitute a single colonial government, under a governor general. Dominica has its own governor. Guadaloupe, also, since its late capture has received a British governor, to whose care we presume the neighboring islands of Deseada and Marigalante are committed.

The Virgin islands have their own lieutenant governor and colonial assembly. We are not informed whether this is true of Anguilla, St. Martin's, Saba, St. Eustatius, and Barbuda; but it is of St. Christopher's, Nevis, Antigua, Monserrat, and Dominica; and we presume, also, of Guadaloupe, including Marigalante and Deseada, if the government of those islands has been settled.

VIRGIN ISLANDS.

This is a small groupe lying E. of Porto Rico, between lat. 17 40 and 18 45 N.; and between lon. 64 10 and 65 20 W. The extreme island on the N. and E. is Anegada; on the S. Santa Cruz; and on the W. Bieque.

Of these islands the Spaniards claim Bieque or Crab island, and Colubra, Green, or Serpent island; together with Great and Little Passage island, and the Tropic keys, all lying between the two first mentioned. These islands are attached to the government of Porto Rico, and are of no consequence.

The following is a list of the principal English islands with their dependencies.

Islands.	Dependencies.
1. St. Thomas	Brass, Little Saba, Great St. James, Little St. James, and Bird islands.
2. St. John	Lavango, Cam, and Witch islands.

3. Tortola { Jost, Van Dyke's, Little Van Dyke's, Guano, Beef, and Thatch islands.

4. Virgin Gorda { Anegada, Nicker, Prickly Pear, Mosquito, Cammanoes, Dog, Fallen City, Round Rock, Ginger, Cooper's, Salt, Peter's, and Dead Chest islands.

5. Santa Cruz or St. Croix.

Columbus discovered these islands in 1493, and named them *Las Virgines* or *The Virgins*. The Dutch buccaneers took possession of them in 1648, and were driven out by a stronger party of English buccaneers, in 1666. The crown first constituted the English islands a distinct government in 1773. The first assembly met at Tortola, Feb. 1, 1774.

The immediate government of these islands is vested in a council of 12, appointed by the crown; and a house of representatives. The president of the council acts as governor in the absence of the governor general, who resides at Antigua. These islands pay 400*l.* toward the salary of the governor general. The chief justice of the Virgin islands has a salary of 200*l.* besides perquisites. Four and a half per cent. annually was paid by the inhabitants on all produce, as the price of their government.

These islands are many of them very dangerous to navigators. There is a bason, however, between Virgin Gorda, Tortola, and St. Thomas, called *Sir Francis Drake's Bay*, 7 leagues long and 4 broad; in which ships may anchor, and be sheltered and landlocked from all winds.

The following is a list of the exports from Tortola and Virgin Gorda, and their dependencies, in 1787:

Sugar	cwt. 79,203	
Rum	galls. 21,417	
Molasses	galls. 2,011	
Cotton	lbs. 289,077	
Dying woods (value)	£6,651	2 6
Other articles (value)	£2,340	18 5

The whole value of the exports of that year was 166,959*l.* 12*s.* 6*d.* and the various articles were carried in 40 vessels, measuring 6516 tons, employing 436 men. The exports from St. Thomas, St. John's, and Santa Cruz we have not seen. Those from Santa Cruz exceed all the other four.

SPANISH ISLANDS. *Bieque* or *Crab island* is 3 leagues from Porto Rico. It is 14 miles in circumference, has a rich soil, and a good road for shipping on the S. *Colubra* is of about equal size, lies 4 leagues N. of Bieque, half way between Porto Rico and St. Thomas, and 5 leagues from each. *Great Passage island* is 12 miles E. of Porto Rico, and between the other two. It is about 7 miles long and 2 wide. *Little Passage island* is in its neighborhood. The *Trofic keys* are a collection of rocks, a little W. of Great Passage island.

ST. THOMAS. This island is 9 miles long from E. to W. and 3 broad; and 12 leagues E. of Porto Rico. It has a safe and commodious harbor, guarded by a single fort. The town lies W. of the harbor, is built chiefly on a single street, and has convenient ware-

houses. Most of the houses are of brick, but of one story. It was, while in the hands of the Danes, a well known resort of smugglers. Sugar, tobacco, potatoes, millet, and maniac are the chief objects of cultivation. The soil is sandy, and is badly watered.

ST. JOHN. This is 5 miles long and 1 broad, and 2 leagues E. S. E. of St. Thomas. It is well watered, and has a harbor, called *Crawl Bay*, the best between Antigua and Porto Rico. The soil is indifferent, and the exports trifling.

TORTOLA. This island is 15 miles long, and 6 broad, and but a short distance N. of St. John. The country is mountainous, but under high cultivation. It is one of the healthiest islands in the West-Indies, and has a large and safe harbor. *Sandy Bay* and *Road Town* are the two principal settlements, both well fortified. This is the most valuable of the Virgin islands, except Santa Cruz.

VIRGIN GORDA. The English call it *Penniston*, and corruptly *Spanishtown*. It is 8 miles E. of Tortola, and is 15 miles long, from S. W. to N. E. It is badly watered, and has few inhabitants. A mountain in the centre of the island is affirmed to contain a silver mine. *Anegada*, the largest of its dependencies, is low, and almost covered by water at high tides.

SANTA CRUZ. The French call it *St. Croix*. It is 30 miles long and 9 broad; and lies 21 leagues S. E. of cape Mala, in Porto Rico, and 12 S. of St. John. Columbus discovered it. The Spaniards, English, and Dutch were by turns masters of it for a long period. In 1651 it was bought for the knights of Malta, who sold it, in 1664, to the French West-India company; and by them it was ceded to Denmark, in 1696. The English took it, with St. Thomas and St. John, in 1808. Its population is estimated at 3000 whites and 30,000 negroes. The soil is very fertile. The annual produce of sugar has been from 30,000 to 40,000 hhds. and other West-India commodities in proportion.

ANGUILLA.

Anguilla, or *Snake island*, was so called from its winding tortuous shape. It is about 30 miles long, and 6 broad; and lies 25 leagues E. by S. of Virgin Gorda, and 50 from Porto Rico. The climate is healthy, and the inhabitants strong and vigorous. The exports, in 1770, amounted to near 6000*l.* in sugar, rum, and cotton. Maize is cultivated extensively.

ST. MARTIN'S.

St. Martin's is 15 miles long from S. W. to N. E.; 12 broad; and 5 S. of Anguilla. The Spaniards settled it early, but abandoned it in 1650. The French then took possession of the northern half; and the Dutch of the southern. The English plundered the French division in 1689, and took possession of it in 1744, and of the whole island soon after the late subjugation of Holland. Tobacco is the chief article of cultivation. But the island is principally valuable on account of its salt pits. There is a good harbor at the N. W. end of the island.

ST. BARTHOLOMEW.

This is a small island, not more than 24 miles in circumference, and 5 leagues S. E. of St. Martin's. It was first peopled in 1648, by Poincy, the French governor of St. Christopher. Admiral Thornhill plundered it in 1689. It was not restored to France till 1697. For a long period after, it was a mere nest of privateers. France ceded it to Sweden, in 1785. The population has greatly increased since that time. It is estimated at 30,000. The men are robust, but the women are feeble and indolent, and are usually attended by slaves to fan them and keep off musquitoes and flies. The houses are made of wood; some are raised upon pillars, so that the wind passes under them. The windows are mere openings in the sides, with windowshutters, or lattices. The shores are dangerous, and cannot be approached without a good pilot. The only port is *Le Carenage*, on the west side, near which stands *Gustavia*, the sole town in the island. Le Carenage has excellent moorings, but admits no vessels drawing over 9 feet water. Gustavia is a considerable town inhabited by Swedes, English, French, Danes, Americans, and Jews. The planters are chiefly French. The bay of Colombieu is deeper, but has no town. The chief exports are drugs, cotton, lignum vitæ, and iron wood. Provisions are procured from the United States, and the nominal commerce with that country has been very great, since its commercial restrictions.

Hurricanes prevail from the middle of July, to the middle of October. The natives live generally to old age, and are subject to but few diseases. The island is mountainous. The soil is indifferent. Only a small part of it is fit for cultivation. Cotton succeeds well, and is the chief object of agriculture. Tobacco and cassava are also cultivated. Aloes hedges inclose the plantations, and are impenetrable. There is not a river, lake, or spring, in the island. Fresh water is procured from cisterns, and when they fail, from St. Christopher, at 12 livres per ton. It abounds with valuable woods. The most in esteem are the iron wood, lignum vitæ, aloes or soap tree, calebac, canapia, whose gum is an excellent cathartic, parotane, whose boughs take root and form a natural shelter, and the sea tree, whose boughs are plaited together and look as if they were glazed. The forests abound with birds. It furnishes the neighboring islands with a peculiar kind of limestone.

SABA.

Saba is 12 miles in circumference, and 30 S. W. of St. Bartholomew. The Dutch long possessed it, but the English took it in 1781. The inhabitants are chiefly Dutch. It has no port. The access to it is by a road cut out of the rock, by which only one man can mount at a time. The island is a delightful plain, producing necessaries for the inhabitants, and materials for several manufactures, the chief of which is aloes. They have scarcely any commerce and little intercourse with the rest of the world.

BARBUDA.

Barbuda is 20 miles E. S. E. of St. Bartholomew, and is 20 miles long, and 12 broad. It was planted soon after the English settled St. Christopher. It belongs to the Codrington family, to which it produces 5000*l.* a year. The inhabitants, about 1500 in number, are employed chiefly in agriculture. There is no harbor, but a well sheltered road on the west side. The land is low, but fertile. Maize, pepper, indigo, and fruits, with cattle and fowls, are the chief productions. There are various species of serpents, some of which are extremely venomous. *Sombrera*, a little island, 20 leagues N. N. W. of Anguilla, is a dependency of Barbuda.

ST. EUSTATIUS.

St. Eustatius is 4 leagues S. E. of Saba, and 3 N. W. of St. Christopher. It is a huge pyramidal rock, rising out of the waves, 29 miles in circumference. The Dutch settled it about the year 1600. The English took it in 1665, and the French soon afterwards, who restored it to the Dutch, in 1667. The English retook it in 1689, and restored it in 1697; took it again in 1781, and restored it in 1783. It fell into their hands again in 1809. It contains about 5000 whites, chiefly Dutch, and 15,000 negroes. There is but one landing place, and that strongly fortified. Tobacco is the principal product, and after that sugar. Cattle and poultry are exported in considerable quantities. The sides of the mountain are laid out in plantations and settlements. The top is a plain of some extent, surrounded by woods. In the hands of the Dutch it was, for its size, one of the most productive islands in the West-Indies.

ST. CHRISTOPHER.

This island is 20 leagues W. S. W. of Barbuda, is 42 miles in circuit, and contains 43,726 acres, or almost 70 square miles. Its length from S. E. to N. W. is 18 miles, and its common breadth about 4. The southeastern and much the smallest division is connected with the body of the island by a narrow isthmus, half a mile over. It is divided into 9 parishes, and contains 4 towns. The natives called it *Liamuga*, or the *Fertile island*; Columbus was so pleased with its appearance, that he called it after his own name *St. Christopher*; and the sailors, by a well known abbreviation, call it *St. Kitt's*. Columbus discovered it in 1493. It was first settled by the English in 1623. The French also attempted a settlement in 1625. In 1627, the two colonies divided the island. The Spaniards invaded them both two years afterwards, and drove off the French and a part of the English, both of whom resorted to Tortuga. The French drove the English out in 1664. They returned in 1667, and were driven out again in 1689. The treacherous conduct on the part of the French, occasioned a war between the two nations. After 8 months possession, by the French, general Codrington took the island, and transported all the French to Martinico and Hispaniola. Half of the island was restored to France,

1697; but taken from them in 1702. A French armament plundered it in 1705, but the whole was finally ceded to England in 1713, and the French possessions publicly sold for the benefit of the English government. A powerful French armament took the island after a most gallant resistance in 1782, but it was restored the following year.

The *Caraibes* lived on friendly terms with the first colonists, and supplied them with provisions. After the arrival of the French, the two colonies, pretending apprehensions of a conspiracy, fell upon them, and murdered about 120 of their stoutest men. The young and handsome women were reserved as slaves and concubines. The rest of the savages withdrew to the neighboring islands, and spread the alarm. A large body of them came over soon after, and killed about 100 of the Europeans. They then quitted this, and the neighboring small islands, and retired southward.

This island contributes 1000*l.* currency towards the salary of the governor general. The council of the island consists of 12 members, appointed by the crown. The president of the council, is lieutenant governor, and acts as governor in the absence of the governor general. The house of assembly consists of 24 members, chosen by the people. A member must have a freehold of 40 acres of land, or a house worth 40*l.* a year; an elector, a freehold of 10*l.* a year. The superior court consists of a chief justice, with a salary of 600*l.* and 4 puisne judges. The population, in 1791, was 4000 whites, 26,000 slaves, and 300 free blacks: in all 30,300. The militia consists of all white men, from 16 to 60, composing two regiments of foot, about 300 in each; and of a company of free blacks. A small number of regular troops is now stationed on the island.

Basseterre, the capital, is on the S. W. coast, at the mouth of a river opening into a bay, called Basseterre road. It contains 800 houses, and is defended by three batteries. Sandy point, also on the W. side, is defended by two batteries. Old road has from 5 to 15 fathoms.

The produce of St. Christopher, in 1787, was exported in 200 vessels, measuring 23,155 tons, and employing 1590 men; and consisted of 235,528 cwt. 2 qrs. 12 lbs. of sugar, 334,609 galls. of rum, 8154 of molasses, 318 lbs. of indigo, 484,640 lbs. of cotton, dying woods in value 5989*l.* 1*s.* 6*d.* and other articles in value 33,456*l.* 19*s.* 4*d.*; making a total value of 510,014*l.* 0*s.* 5*d.*

The interior of the island consists of many rugged precipices and barren mountains. Near the shore, the country is level. Of the 43,726 acres, 17,000 are devoted to sugar, and 4000 to pasturage. Cotton, indigo, and provisions, occupy but little, probably not more than 2000 or 3000. The rest of the island is unfit for cultivation. The soil is better suited to the production of sugar, than that of any of the West-Indies. It is a dark grey loam, light and porous, apparently the black, ferruginous pumice of the naturalists, incorporated with a pure virgin mould. This rests on a stratum of gravel, from 8 to 12 inches deep. Clay is found only at a considerable height on the mountains. Particular spots have

been known to yield 8000 lbs. of Muscovado, (or 5 hhds. of 16 cwt. each,) to the acre. A whole plantation has yielded 4 hhds. to the acre. The general average produce, for a series of years, for the whole island was 16,000 hhds.; which, as only half the cane land, or 8,500 acres, is cut annually, gives nearly 2 hhds. of 16 cwt. as the average acre crop for the island. That of Jamaica, on the contrary, is not more than $\frac{1}{4}$ of a hhd. There are several rivers here, and the island is tolerably well watered. Mount Misery, the loftiest summit, rises 3,711 feet above the level of the sea. It is evidently a decayed volcano. There is an immense crater on the top; the bottom of which is nearly level, and has an extent of 50 acres, of which 7 are covered with water. The rest are clothed with high grass and trees, among which the mountain cabbage is conspicuous. The woods on the mountains are inhabited by a small species of monkey; troops of which come down to devour the canes, and do inconceivable mischief.

NEVIS.

This beautiful little spot is nothing more than a single mountain, rising like a cone in an easy ascent from the sea; the circumference of its base not exceeding 24 miles. It is only $2\frac{1}{2}$ miles S. E. of St. Christopher. The island is divided into 5 parishes. Columbus called it *Nieves*, or *The Snows*, probably from its resemblance to a mountain in Spain of that name. It was settled by English emigrants from St. Christopher, in 1628. The French took it in 1706, and restored it in 1713; retook it in 1782, and surrendered it the following year. The council consists of 7 members. The president acts as governor in the absence of the governor general. The house of assembly consists of 15 members, 3 from each parish. There is one court, consisting of a chief justice, and two assistants; and also an office of registry of deeds. The population consists of about 1000 whites, and 10,000 negroes. All white men, not exempted by age or decrepitude, are enrolled in the militia, among which there is a troop of 50 horse.

The capital, Charlestown, is on the W. side of the island. Here is the principal fortification. The commandant is appointed by the crown, and paid by the island. Indian Castle and New-Castle are two other shipping places.

The country is well watered, and the land in general fertile; except a little near the summit, which answers for yams and other vegetables. The soil is stony; the best is a loose black mould, on a clay. The average produce of sugar is 1 hhd. of 16 cwt. per acre. There are about 8000 acres of cane land, of which half are cut annually, and 4000 hhds. is the annual crop. The island was undoubtedly produced by a volcanic explosion; for there is a crater near the summit still visible, which contains a hot spring, strongly impregnated with sulphur. Sulphur is frequently found in substance in the neighboring gullies and cavities of the earth.

ANTIGUA.

Antigua is 16 leagues E. of Nevis, and 18 E. by S. of St. Christopher. It is 50 miles in circumference, and contains 59,838 acres, or 93½ square miles. It is divided into 6 parishes, and 11 districts, and contains 6 towns and villages. The natives called it *Jamaica*, a word, in the language of the *Arrowauks*, signifying *a country abounding in springs*; but evidently of a different meaning in that of the *Caraibes*, for there is not a spring or rivulet of fresh water on the island. Columbus named it *Santa Maria de la Antigua*, after a church in Seville. He discovered it in 1493. In 1632 it was first planted by a few English families. Charles II. granted it to lord Willoughby, in 1663. Three years afterwards, it was ravaged and plundered by a French armament from Martinico, cooperating with a body of *Caraibes*. It was resettled by the English from Barbadoes, in 1674, under Mr. Codrington, who was that year appointed governor general of the then British Leeward islands. In 1710, the inhabitants rose *en masse*, and put to death the governor general, a Mr. Park, who for 4 years and a half had acted the part of a Nero in this little domain.

The governor general usually resides here. The council consists of 12 members, appointed by the crown. The president is governor in the absence of the governor general. The house of assembly consists of 25 members. The population, in 1774, consisted of 2590 whites and 37,808 slaves, besides free negroes. The military establishment consists of 2 regiments of infantry, 2 of foot militia, 1 squadron of dragoons, and 1 battalion of cavalry.

The inhabitants of this island deserve great credit for their kind treatment of their slaves. They have for a long time permitted the Moravian missionaries to instruct them. The legislature was the first to come forward with laws meliorating their condition.

St. John's, the capital, is built on an excellent harbor on the W. shore. The entrance is defended by fort James. It is the largest and most commercial town in the whole government. Parham, on the N. side has a fine harbor, is regularly built, and fortified. Falmouth, on the S. side, has a good and well fortified harbor. Willoughby Bay, Old Road, and James Fort, are the names of the other villages. The produce of the island, in 1787, was exported in 233 vessels, measuring 28,663 tons, and manned by 2048 seamen; and consisted of 284,526 cwt. 1 qr. 18 lbs. of sugar, 716,546 galls. of rum, 5910 of molasses, 26 lbs. of indigo, 160,510 of cotton, dying woods in value 4142*l.* 6*s.* 6*d.* and other articles in value 48,006*l.* 10*s.* 8*d.*: making a total value of 592,596*l.* 15*s.* 8*d.*

The island is generally level. There are two kinds of soil; one a black mould, on a stratum of clay, naturally very rich and productive, but injured by drought; the other a stiff clay, on a stratum of marl, and abounding with an inirradicable species of grass, which impoverishes the land, and overpowers every other vegetable. Many estates, in consequence of this, have been necessarily converted to pasture, or entirely abandoned. Of the 59,838 acres, 34,000 are appropriated to sugar. A small part is unimprovable, and some has been deserted. The rest is devoted to cotton, tobac-

so, and pasture. Only half of the cane land is cut annually. The average crop is about 17,000 hhds. of 16 cwt. or 1 hhd. to the acre. In 1787, the quantity exported amounted to 17,883 hhds.

MONTSERRAT.

This is the most southern island under the governor general, and is 7 leagues S. E. of Nevis, and 8 S. W. by W. of Antigua. It is 9 miles each way, and contains about 30,000 acres, or nearly 47 square miles. It is divided into 4 districts. Columbus called it *Montserrat*, after a mountain of the same name in Spain. He discovered it in 1493. It was first settled by English emigrants from St. Christopher, in 1632. The French plundered it 1712, and took it in 1782, but restored it the year following.

It pays 400*l.* as its part of the salary of the governor general. The council consists of 6 members; and the assembly of 8, two from each district. In 1648, there were 1000 white families on the island, constituting a militia of 360 effective men. The population, in 1791, was 1300 whites, and 10,000 negroes. The produce of Nevis and Montserrat united, in 1787, was exported in 122 vessels, measuring 10,287 tons, and manned by 904 seamen; and consisted of 110,284 cwt. 0 qr. 21 lbs of sugar, 289,076 galls. of rum, 1313 of molasses, 140 lbs. of indigo, 92,472 of cotton, dying woods in value, 352*l.* 7*s.* 6*d.* and other articles in value, 1363*l.* 3*s.* 5*d.*; making a total value of 214,141*l.* 16*s.* 8*d.*

Almost two thirds of the island are mountainous or barren. Of the cultivated land, about 1000 acres are appropriated to sugar, 2000 to cotton, 2000 to provisions, and 2000 to pasturage. The average crop for 4 years, 1784—1787, was 2737 hhds. of sugar of 16 cwt. 1107 puncheons of rum, and 275 bales of cotton.

GUADALOUPE.

Guadaloupe consists really of two islands, divided by a short and narrow channel called the *Salt river*. That part of the island, which lies N. E. of this channel is called *Grande Terre*, and is 14 leagues long, from S. E. to N. W. and 6 broad. The S. W. division is called *Basse Terre*, and is 12 leagues long, from N. by W. to S. by E. and 10 broad, in the widest part. A promontory about 2 leagues wide reaches from the N. E. part of Basse Terre, about 3 leagues towards Grande Terre, and is only separated by the Salt river. This channel opens, on the N. N. W. into a large bay, called the *Grand Cul de Sac*; and, on the S. S. E. into the *Petit Cul de Sac*. Its northern mouth is 300 feet over; but in some places the breadth of the channel does not exceed 90. No vessels of more than 50 tons burthen can pass through it, though in various places there is sufficient depth for ships of 500 tons. The channel is a clear, smooth stream above 2 leagues long.

Columbus gave it its present name, from the resemblance of its mountains to those of Guadaloupe, in Spain. He discovered it in 1493. The French first settled the island in 1635. The English took it in 1759, and restored it in 1763; retook it in 1794, and lost

it in the latter part of the same year. In 1810 it again fell into their hands, and it is to be hoped that it will never go out of them again to become a nursery of French privateers.

This island is now under an English governor. We presume that no colonial government has yet been constituted.

It contained in

1700	3,825 whites 325 free bl. 6,725 slaves	10,875	1779	13,261 whites 1,382 free bl. 85,327 slaves	99,970
1755	9,643 whites 41,140 slaves	50,783	1788	13,466 whites 3,044 free bl. 85,461 slaves	101,971

The white inhabitants are almost wholly of French descent. A few *Caraibes* still remain on the island, but they have lost all the characteristics of their nation.

Basse Terre is the name of a seaport on the S. W. coast, regularly built and defended by a citadel.

The exports from Guadaloupe to France, in the years 1767 and 1775, were as follows:

	1767. quintals.	1775. quintals.
Sugar	164,021	188,386
Coffee	34,205	63,029
Cotton	11,955	5,193
Cacao	456	1,024
Indigo		1,438
Ginger	1,884	

Beside Campeachy wood, hides, confections, liqueurs, and ratifia. The value of the imports and exports, in 1767 and 1788, was as follows:

	Imports.	Exports.
1767	livres 4,523,884	7,103,838
1788	francs 5,362,000	15,053,000

A range of mountains runs from N. to S. through Basse Terre. The country E. of it is called *Capesterre*. There is a sulphur mountain in Basse Terre of considerable height, which has various small craters, and is often on fire. The copayla balsam, milk shrub, moubane tree, corbary, cinnamon tree, aloes, sandal-wood, and the various tropical fruit trees, are found on the island. *Old Fort point* is the S. cape of Basse Terre; and *Gros Morne* the N. W. *Antigua Point* is the N. W. cape of Grande Terre; *North Point* the N. E.; and *Point Chateau* the S. E.

DESEADA.

This island is 12 miles N. E. from point Chateau. It is 12 miles long, and 6 broad. As it was the first land made by Columbus, in his second voyage, he named it *Deseada* or *the desired land*. The French call it *La Desirade*. It is a very modern colony. In 1788 it contained 213 whites, 33 free blacks, and 619 slaves: total 865. There is no regular town. The soil is sandy, but yields some cof-

fee and cotton. It fell with Guadaloupe, and was previously a noted resort for privateers.

MARIGALANTE.

Marigalante lies 5 leagues S. of Grande Terre, and 8 E. of Basse Terre. It is of a circular form, 14 leagues in circumference. Columbus named it after the ship in which he sailed. He discovered it in 1493. The French settled it in 1647. The Dutch took it twice. The English also in 1691, 1759, and lately with Guadaloupe. The eastern coast is defended by high rocks. The western is flat, and the island generally fit for cultivation. There are 2 parishes. The principal in the S. is defended by a fort called *Basse Terre.* Its annual produce is stated at 1,000,000 lbs of sugar, 800,000 of coffee, and 100,000 of cotton.

DOMINICA.

Dominica is 10 leagues S. S. E. of Old Fort Point in Guadaloupe. It is 29 miles long, and 16 broad; and contains 186,436 acres, or 291½ square miles. Columbus called it *Dominica*, because he discovered it on Sunday, Nov. 3d, 1493. It was included, with many others, in the earl of Carlisle's patent, dated June 2d, 1627. Various abortive attempts were made to settle it, by the English. By the treaty of Aix la Chapelle, in 1748, England and France agreed that Dominica, St. Vincent, St. Lucia, and Tobago should remain neutral, and in the unmolested possession of the Caraibes. In 1759, the English claimed the island. A number of French subjects had previously planted it. In 1763, France ceded the island to England. An expedition from Martinico conquered it in 1778, but it was restored in 1783.

The governor has a salary of 1300*l.* sterling. The council consists of 12 members, and the house of assembly of 19.

The population in 1788, consisted of 1236 whites, 445 free blacks, 14,967 slaves, and 20 or 30 families of Caraibes; making a total of about 16,800.

Roseau, the capital, is in the S. W. part of the island, on a point of land, which has Woodbridge's bay on the N. and Charlotteville bay on the S. It extends about half a mile in length, from the latter to Roseau river, and a quarter of a mile in breadth, containing, in 1788, 500 houses besides negro cottages. Upwards of 500 houses were burnt by the French, in 1778.

The white inhabitants of the island are more than half French, and are catholics. The Cariabes are quiet and inoffensive, speak a language of their own, and a little French. They live chiefly by fishing and fowling, and are very expert marksmen. They make beautiful baskets of silk grass, and of the bark of trees.

The produce of the island, in 1787, was exported in 162 vessels, measuring 18,126 tons, and manned by 1814 men; and consisted of 71,302 cwt. 1 qr. and 21 lbs. of sugar, 63,392 galls. of rum, 16,803 of molasses, 1194 cwt. 3 qr. 2 lbs. of cacao, 18,149 cwt. 3 qr. 6 lbs. of coffee, 11,250 lbs. of indigo, 970,816 lbs. of cotton, 161 cwt. of gin-

ger, and other articles in value 11,912*l.* 10*s.* 9*d.*; making a total value of 302,987*l.* 15*s.*

The island contains many high and rugged mountains, interspersed with fine vallies. The soil, in the interior, is chiefly a light brown mould, which appears to have been washed from the mountains. Near the coast it is a rich black native earth, well adapted to every kind of culture. The under stratum is in some parts a yellow brick clay, in others a stiff terrace, but generally stony. Coffee is the great object of agriculture. In favourable years the island has produced 3,000,000 lbs. There are 200 coffee plantations, and only 50 of sugar. The island is well watered, and contains more than 30 fine rivers besides rivulets. Several of the mountains exhibit unextinguished volcanoes; which frequently discharge vast quantities of burning sulphur. Various mineral springs are found among them. In some places the water is hot enough to boil an egg.

WINDWARD ISLANDS.

These lie between lat. 9 30 and 14 50 N. and between lon. 59 30 and 62 W. Martinico is the most northern, Barbadoes the most eastern, and Trinidad the farthest S. and W.

MARTINICO.

Martinico lies 10 leagues S. S. E. of Point Cachacrou, in Dominica, and is 50 miles long, from N. W. to S. E.; generally about 16 broad; and 140 in circumference. It is divided into 28 parishes, and contains about as many towns and villages. The natives called the island *Madanina*. French emigrants from St. Christopher, settled it in 1635, and in a little while extirpated the natives. The English took the island, in 1762, and restored it the following year; retook it in 1794, and restored it in 1802. In 1810 it again fell into their hands. In 1802, Martinico, St. Lucia, and Tobago were formed, by France, into one government, under a captain general, who resided at Martinico. A British governor has been appointed since the capture, but we know nothing of the government established over the island.

The population was in the year

1700	6,597 whites 507 free bl. & sav. 14,566 slaves	21,660	1776	11,619 whites 2,892 free bl. 71,268 slaves	85,779
1770	11,588 whites 2,524 free bl. 71,142 slaves	85,254	1788	10,603 whites 4,851 free bl. 73,416 slaves	88,870

Port Royal, the capital, is on the W. coast, on a large bay, forming one of the best harbors in the West-Indies. The French ships of war in these seas always wintered here. The streets are straight, and the houses well built. The citadel cost 325,000*l.* sterling.

St. Pierre, also on the W. coast, but farther N. is a port of entry, and the most commercial town in the island. It contains about

2000 houses and 12,000 inhabitants. The houses are on a side hill, are all white, and make a beautiful appearance in the bay. The bay is of a circular shape, and easy of access, but unsafe in storms.

The commerce of the island, in 1769 and 1788, was as follows:

	Imports.	Exports.
1769	sterling £588,412	£536,631
1788	1,195,115	1,201,875

Of the imports, in 1788, 763,959*l.* were from France, and 431,156*l.* from other countries. The exports of 1769 employed 202 vessels. The capital articles were 189,695 quintals of sugar, 68,518 of coffee, 11,731 of cacao, 6048 of cotton, 2518 of cassia, 783 hhds. of rum, 307 of molasses, besides indigo, sweetmeats, chocolate, snuff, rope yarn, liqueurs, dying wood, and hides. A part of the imports were always sent to the Spanish Main.

The island is very uneven, and intersected in all parts by hillocks, which are chiefly conical. The soil is generally very good. Tobacco and cotton were at first the objects of cultivation; arnotto and indigo soon followed. Sugar was introduced in 1650, and cacao in 1660, but it did not become general till 1684, when chocolate became a favorite drink in France. All the cacao trees died in 1718, and the coffee tree was substituted a few years after. The well known snuff, called *Macouba*, is made of tobacco, that grows in the parish of *Macouba*, in the N. E. corner of the island. The country is well watered; some of the streams are pure and sweet; others are unfit for drinking; and the inhabitants are obliged to depend on the clouds. The *Galion*, the largest river, is in the N. E. There are three mountains that rise above the other hills. Mount Pelee, in the W. is the highest, and is obviously an extinguished volcano. The lands in the neighborhood consist chiefly of pumice, in lumps or powder. A small quantity of freestone is found; but blocks of lava are generally substituted. Lime is made of madrepores and sea shells. Point *Macouba* is the N. E. cape, and Point *Salines* the southern.

ST. LUCIA.

St. Lucia lies 9 leagues S. of Martinico. It is 32 miles long, from N. to S. and 12 broad. There are 9 parishes; 8 on the W. side, and but 1 on the E. The island was discovered on St. Lucia's day. The English first settled here about 1635. The Caraibes, in 1638, assisted by the French, drove them off. The French then settled it, but were all massacred by the Caraibes in 1654. Various unsuccessful attempts were afterwards made by both nations to plant it, but the natives retained it. In 1748 France and England agreed that it should remain neutral, and in the possession of the natives. The French, however, began to occupy it in 1756, and in 1763 it was ceded to France. The English took it in 1779, and restored it in 1783; retook it in 1794, and restored it in 1802. Early in the present war it again fell into their hands.

There is here an English governor, but we know not how the government is organized.

The population of the island was in the year

1769 { 2,524 free persons / 10,270 slaves } 12,794 1776 { 2,397 whites / 1,050 free bl. / 10,752 slaves } 14,199

Little Carenage bay is on the west side, and is the best harbor in all the Caribbean islands. It is large and deep, has an excellent bottom, is free from worms, and is perfectly safe, even in hurricanes. Nature has here formed three careening places, which do not want a key, and require nothing but a capstern to turn the keel above ground. The exports, in 1769, amounted to 112,000*l.* sterling. The soil is generally good, and the climate healthy. The hills, in the east, are not so high as to intercept the sea breeze. Sugar, cotton, cacao, and coffee, are the produce. Two of the hills, being very round and steep, are called the *Pin's Heads*, and were once volcanoes. *Gros Cap* is the north cape of St. Lucia, and *Moulacique Point* the southern.

ST. VINCENT.

St. Vincent lies 8 leagues S. S. W. of St. Lucia; and is 24 miles long from N. to S. and 10 broad; containing about 84,000 acres, or 131¼ square miles. It was discovered on St. Vincent's day, January 22d, and was included in Willoughby's government, in 1672. The English made several unsuccessful attempts to settle it. In 1685, a slave ship, from the *Bite of Benin*, in Africa, with a cargo of *Mocoes* negroes, was wrecked on *Bequia*, a little island, 2 leagues south of St. Vincent. Thither they soon went over, and were made slaves of by the *Caraibes*. Finding their numbers increase, their masters came to a resolution to kill all the negro male children; on which the blacks rose in a body, and had the advantage. The Caraibes afterwards occupied the northern half of the island, and the blacks the southern. By the accession of runaway slaves from Barbadoes, the blacks became so numerous, that they drove the Caraibes into the northwest corner of the island. The French, from Martinico, in 1719, attacked the negroes, at the request of the Indians, and were very roughly handled. The English met with the same success, in 1723. In 1763, the number of the negroes amounted to 2000; while, of the Caraibes, there were only 100 families; and, in 1791, they were chiefly extinct. The island was ceded to England in 1763. The ministry then undertook to exterminate the blacks, but the military officers remonstrated, and the plan was given up. In 1773, a treaty of friendship was formed between his majesty and the chiefs of the negroes. In 1779, the island was taken by a body of troops from Martinico. The negroes assisted the invaders; but when the island was restored, in 1783, the government forgave them.

The English part of the island includes 23,605 acres, and is divided into 5 parishes. The blacks claim about as much. The rest is incapable of cultivation. The governor's salary is 2000*l.* sterling. The council consists of 12 members, and the house of assembly of 17. The military force consisted, in 1791, of a regi-

ment of infantry, a company of cavalry, a black corps, and 2 regiments of foot militia. The population, in 1788, amounted to 1450 whites, and 11,853 negroes, exclusive of the independent blacks. These have long been called the *Black Caraibes*, partly because there was an actual intermixture, and principally because they adopted most of the Caraibean customs, particularly that of flattening the forehead. There is here a noble botanic garden of 30 acres in extent, containing all the native plants and a vast variety of exotics.

Kingston, the capital, is built on a bay, on the southwest coast, to which it gives name. There are 3 other villages. In 1780, the only church in the island was blown down. The produce of the island, in 1787, was exported in 122 vessels, measuring 12,636 tons, and manned by 959 men; and consisted of 65,028 cwt. 1 qr. and 27 lbs. of sugar, 88,266 galls. of rum, 9656 of molasses, 634 cwt. 1 qr. and 5 lbs. of coffee, 761,880 lbs. of cotton, 143 cwt. 0 qr. 24 lbs. of cacao and other articles, in value 2,591*l.* 11*s.*; making a total value of 186,450*l.* 14*s.* 8*d.*

The country is very generally rugged and mountainous. Of the 84,000 acres in the island, about 47,000 are fit for cultivation, and are improved by the English and the black Caraibes. The remaining 37,000 are unfit for agriculture. The soil of the good land is a fine mould, composed of sand and clay, and well fitted for sugar. The country is every where well watered. Tarratee Point is the north cape, and cape Rabishi the southern.

Bequia island lies 2 leagues S. of St. Vincent, and contains 3700 acres. It has a fine harbor, called Admiralty bay. *Union* contains 2150 acres; *Canouane* 1777; and *Mustique* 1203. About 1400 negroes are employed in their cultivation. The little islets *Petit Martinique*, *Petit St. Vincent*, *Maillereau*, and *Balleseau* also produce a little cotton.

BARBADOES.

Barbadoes lies 28 leagues E. of St. Vincent, and 26 E. S. E. of St. Lucia; being the most eastern of all the West-Indies. It is 21 miles long from N. to S. and 14 broad, containing 106,470 acres, or about 166$\frac{3}{8}$ square miles. It is divided into 5 districts, and 11 parishes, and contains 4 towns. It received its name from the Portuguese, who discovered it on their voyages to Brasil. An English ship, in 1605, took possession of it in the king's name. At that time the Caraibes had chiefly or wholly, abandoned it. The first colony was planted in 1624, and Jamestown founded. In the civil wars the inhabitants took part with Charles I. They were however conquered, in 1651, by the parliamentary troops under Ayscue, and deprived of their government.

The governor has a salary of 2000*l.* sterling. The council consists of 12 members, and the house of assembly of 22. The governor and council constitute the court of chancery; and the governor sits with the council in their legislative capacity. In this island the courts of grand sessions, common pleas, and exchequer, are distinct.

Barbadoes is said, in 1670, to have had a population of 50,000 whites, and 100,000 blacks. This is doubtless exaggerated, though the island was then far more populous than at present. The number of whites, in 1724, was 18,295; and of negroes, in 1753, 69,870. The population, in 1786, was 16,167 whites, 838 free blacks, and 62,115 slaves; total 79,120. The number of slaves, in 1792, was 64,330, making an increase in 6 years of 2,215; in which time 3970 were imported; so that the deaths in 6 years exceeded the births, by 1,755, or 292½ annually.

The average amount of the taxes for 7 years, (1786—1792) was 9531*l.* 5*s.* 8*d.* This was exclusive of the 4½ per cent. on all exported produce, a most oppressive and impolitic regulation. This sum was raised by a capitation tax on negroes, a tax on sugar mills, houses, carriages, and imported wines.

There is a college at Bridgetown, founded by Col. Codrington, the only one in the British West-Indies. It has not flourished.

Bridgetown, the capital, is in the southwest part of the island, at the head of Carlisle bay. This bay is a league and a half long, and a league broad, convenient and safe, but the rocks at the bottom are apt to cut the cables. It has numerous wharves for loading and unloading, and is well defended by 4 forts. The streets are paved, and the houses lofty and well built. St. Michael's church is a noble edifice. The governor has a country villa 1 mile northeast of the town. The number of houses is about 1500, and of inhabitants 12,000. The town has often been destroyed by fires and hurricanes. The adjacent country is low and flat. A regular monthly packet plies between Barbadoes and England. *Jamestown* and *Speightstown*, both on the west coast, and *Charlestown* or *Ostines*, are the names of the other three towns.

The produce of the island, in 1787, was exported in 243 vessels, measuring 26,917 tons, and manned by 1942 men; and consisted of 137,766 cwt. 0 qr. 16 lbs. of sugar, 415,489 galls. of rum, 13,489 of molasses, 5,561 cwt. 2 qrs. 18 lbs. of ginger, 2,705,975 lbs. of cotton, 245 cwt. 0 qr. 5 lbs. of fustic, and other articles, to the value of 46,124*l.* 7*s.* 11*d.*; making a total of 539,605*l.* 14*s.* 10*d.* The quantity of sugar increased in 7 years (from 1786 to 1792) from 8,659 hhds. 82 tierces and 3,419 barrels, to 17,073 hhds. 125 tierces and 2,698 barrels.

This island has suffered most severely from hurricanes. That of October, 1780, destroyed 4,326 lives, and property to the amount of 1,320,564*l.* 15*s.* sterling. Almost all the land is under cultivation. The soil of the hills is a chalky marl; that of the plains and low grounds a fine black mould, somewhat reddish in the shallow parts; and that near the sea generally sandy. No soil in the West-Indies, except the prime lands of St. Christopher, is better adapted to the cane, than the black mould of Barbadoes. The Barbadoes tar is a well known production of this island. High point is the north cape, and Fisher's point the southern. *The Cobblers* are a collection of rocks, which flank the southeastern coast.

GRENADA.

Grenada lies 20 leagues S. S. W. of St. Vincent, and 36 from cape Three points, in Venezuela. It is 24 miles long from S. S. W. to N. N. E. and 12 broad; containing about 80,000 acres, or 109$\frac{3}{4}$ square miles. It is divided into 6 parishes, and Cariacou forms a seventh. Columbus named it after Grenada in Spain. He discovered it in 1498. Du Parquet, governor of Martinico, settled it in 1650. In a short time he contrived a quarrel with the natives, and completely exterminated them. The history of his campaign in Grenada, as given by his panegyrist, Du Tertre, contains a series of fraud, treachery, cruelty, and murder, which would have gained him distinction among the heroes of La Vendee. In 1656, Du Parquet sold the island to Count Cerillac; and he, some years after, to the French West-India company; on the abolition of whose charter, in 1674, it became vested in the crown. The English took it in February, 1762. The French, under Count D'Estaing, retook it in 1779, and restored it in 1783.

The colonial act of 1784 provides stipends of 390*l.* currency for 5 clergymen, 1 for St. George, 3 for the remaining parishes, and 1 for Cariacou. There are also valuable glebes in each parish. There are still a few Catholic clergy in the island. The governor is chancellor, ordinary, and vice admiral. His salary is 3200*l.* currency. The council consists of 12 members, and the house of assembly of 26. A freehold of 50 acres qualifies a representative, and one of 10 acres a voter. The governor and council compose a high court of errors and appeals. There is also a court of grand sessions, of common pleas, and of admiralty. The *slave laws* of Grenada are honorable to its legislature.

The population, in 1700, was 251 whites, and 525 blacks; total 776. The number of whites, in 1771, exceeded 1600; in 1777 it fell short of 1300, and the number of blacks at that time was stated at 35,000. The population, in 1785, was 1000 whites, and 23,926 negroes. The number of free blacks, in 1787, was 1115.

About 500 regular troops are maintained here, together with 3 companies of king's negroes, who served in the American war. In 1777, there were 5 regiments of militia, with a company of free blacks attached to each.

St. George, the capital, formerly fort Royal, lies on a spacious bay, in the southwest part of the island. Its harbor is one of the best in the West-Indies. The town is divided by a ridge running into the sea. The church is on the ridge, and nearer the promontory is an old fort large enough for a regiment.

The produce of the island and its dependencies, in 1787, was exported in 188 vessels, manned by 1824 men, and measuring 25,764 tons; and consisted of 175,548 cwt. 0 qr. and 9 lbs. of sugar, 670,390 galls. rum, 4300 molasses, 8812 cwt. 2 qrs. 4 lbs. of coffee, 2716 cwt. 3 qrs. 18 lbs. of cacao, 2,062,427 lbs. of cotton, 2810 of indigo, and other articles in value 64,545*l.* 0*s.* 3*d.*; making a total of 614,908*l.* 9*s.* 3*d.*

The country is mountainous, but no where inaccessible. It abounds with springs and rivulets. Of the 80,000 acres, 72,141

paid taxes in 1776, and are therefore probably susceptible of cultivation, yet the quantity actually cultivated has never exceeded 50,000. To the north and east the soil is a brick mould, like that in Jamaica. In the west it is a rich black mould, on a stratum of yellow clay. In the south it is poor, and of a reddish hue, and the same extends over a considerable part of the interior. On the whole, the island is in a high degree fertile. In 1775, more than 1 hhd. of sugar of 16 cwt. was procured from the labor of each negro, old and young, engaged in the culture. The country abounds with rivulets. Point Laurent is the northwest cape, Levera point the northeast, and Salines point the south.

Cariacou island lies 5 leagues N. N. E. of Grenada, contains 6913 acres, has Hillsborough for its capital, is very fertile, and produces 1,000,000 lbs. of cotton, besides maize, yams, potatoes, and plantains. *Isle Rhonde* contains 500 acres, devoted to pasturage and cotton. These and a number of islets in the neighborhood are called *The Grenadines*.

The Grenada bank is a shoal 5 leagues west by south from point Salines, is nearly as large as Grenada, and has from 10 to 20 fathoms.

TOBAGO.

Tobago lies 30 leagues S. E. by E. of Grenada, and 42 S. S. W. of Barbadoes. It is 30 miles long from E. N. E. to W. S. W. and 9 broad. Columbus discovered it in 1498, and called it *Tobago*. A small colony of Dutch first settled it, in 1632, and called it *New Walcheren*. The Spaniards and natives soon exterminated them. James, duke of Courland, about the year 1634, sent a colony thither, which planted itself on the west side, at *Great Courland bay*. On the death of the duke, in 1737, the island reverted to the king of England. In 1748, it was declared neutral by England and France; and, in 1763, yielded to the former. It was taken by France in 1781, and ceded to her in 1783; retaken in 1793, receded in 1802, and again taken in 1809.

Its population, in 1776, was thought equal to that of St. Lucia. If so, it amounted to 2397 whites, 1050 free blacks, and 10,752 slaves; in all 14,199.

Scarborough is the name of a town on the southeast coast.

In the northwest the country is mountainous; generally, it is pleasantly uneven. The island has one incalculable advantage over those farther north, that it lies out of the usual track of the hurricanes. Its soil is chiefly a rich black mould, calculated for all the productions of the climate. Its fruits are uncommonly excellent.

TRINIDAD.

Trinidad lies 15 leagues S. S. W. of Tobago, 35 S. S. E. of Grenada, and 4 from point Paria, on the continent. In size it is the fifth of the West-Indies, and the largest of the Caribbean islands; being 60 miles in length from north to south, and having

an average breadth of 40. The gulf of Paria lies on the west; and an arm of the sea on the south, called the *Serpent's Mouth*, and connecting that gulf with the ocean. The natives called the island *Cairi*. Columbus called it *Santissima Trinidada*, or the *Most Holy Trinity*. The French call it *La Trinite*; the English merely abridge the appellation of Columbus. He discovered it in 1498. The Spaniards first settled the island, but in what year we have not been able to ascertain. They treated the natives with the utmost cruelty. Sir Walter Raleigh, in 1595, invaded it, and broke up the Spanish settlement. The Spaniards afterwards reoccupied it; but we know little of its subsequent history. It was taken by the English in February, 1797, and ceded to them by Spain at the treaty of Amiens, in 1802.

An English governor resides here. No constitution has yet been granted. The island is thinly peopled. We have seen no statement of the actual population. Some of the whites are Spaniards and some English. It is said that a considerable number of the natives are still found in the eastern part of the island, but we do not know whether they are Arrowauks or Caraibes.

The inhabitants of Trinidad, previous to the late capture, were probably the most dissolute of the Spanish colonists. There were but very few white females in proportion to the number of males, and almost every planter had his African haram. The wretched occupants, however, unlike those of a Turkish seraglio, were compelled to work daily in the field, under the lash of the overseer. The female negroes prodigiously outnumbered the males; a difference attributal, not to the climate, but to the sensuality of the *purchasers*. Many of the Spaniards removed after the late capture, and the English emigrants have chiefly conformed to the existing manners.

Port Espana, on the west side of the island, is the principal sea port. In 1806, it contained about 3000 inhabitants.

Three distinct ridges of mountains cross the island from west to east; the northern, middle, and southern. Marshes of considerable extent are found in various places. The following statement is given by M'Callam of the land susceptible of cultivation. He does not pretend that it is perfectly accurate:

		acres.
1313	lots suitable for sugar	420,160
945	coffee	302,400
158	cotton	50,560
304	cacao	98,280
2720		870,400 or 1360 square miles
Deduct 400	lots already granted by the Spanish government	128,000
2320	So that the crown now holds	742,400 acres.*

Three navigable rivers fall into the gulf of Paria, the Caroni, Gurracara, and Coura. The Caroni is navigable 20 miles, but has

* This was in 1802.

a bar at its mouth. The two chief rivers of the eastern coast, are the Ortoire, and the Oropuche. The Ortoire has, for 20 miles, from 2 to 5 fathoms, but is barred at the mouth. The Oropuche is navigable about 10 miles. A canal is proposed between the Aripo, a branch of the Caroni, and the Guaro, a branch of the Oropuche. It will furnish a navigation across the island.

There is a remarkable lake, or plain, in Trinidad, known by the name of the Tar lake. It is on the W. coast, a little S. of the middle of the island; on a headland which reaches about 2 miles into the sea; is 2 miles broad; and is exactly opposite the high mountain of Paria, on the other side of the gulf. The cape, or headland, is about 50 feet high, and the greatest elevation on the W. coast. From the sea it appears a mass of black, vitrified rocks; but on a closer examination it is found to be a composition of bituminous scoriæ, vitrified sand, and earth, cemented together; in some parts beds of cinders only are found. In approaching the cape, there is a strong sulphureous smell, which is prevalent in many parts of the ground to the distance of 8 or 10 miles from it. The Tar lake is on the highest part of the promontory, and in the rainy season is covered with water. This evaporates in a few days after the rains have ceased and the surface is every where soon cracked by the heat of the sun into numberless divisions. It has the consistence of pit coal, the color rather greyer. It breaks into small fragments of a glossy, cellular appearance, with a number of minute, shining particles interspersed through its substance. It is very friable, and when liquid is of a jet black color. It is of a very considerable depth, and the surface is broken with great difficulty. A gentle heat renders it ductile; hence, mixed with a little grease or common pitch, it is much used for graving the bottoms of ships. This substance is also found in various other places within 20 miles; and there is a number of hot springs in the neighborhood.

LESSER ANTILLES.

THESE islands lie between lat. 10 30 and 12 25 N. and between lon. 63 20 and 69 50 W.; and stretch from S. by E. to N. by W along the northern coast of South-America, in a direction nearly parallel with the Greater Antilles. Margarita,* the most eastern, is 2° 10′ farther east than Porto Rico; while Cuba is 15 10 farther west than Orubilla, the most western. The following is a list of the principal islands with the smaller ones in the neighborhood of each:

Margarita. { Cubagua, Coche, Feayles, Sola, the Testigos, Blanca, and the Seven Brothers.

Tortuga or Sal Tortuga.

* Margarita is the most eastern except the Testigos, and various other rocks in its neighborhood.

Orchilla.	The Roca islands.
Bonair.	Aves.
Curaçoa.	Little Curaçoa.
Aruba or Oruba.	Orubilla.

MARGARITA.

As this island, with its dependencies, now constitutes an integral part of the republic of Venezuela, a description of it will be given in our account of that country.

TORTUGA.

Tortuga, *Sal Tortuga*, or *Tortuga Salada*, is 16 leagues W. from Margarita, and 15 from the main. It is about 40 miles in circumference. On the S. E. there is an indifferent road for shipping, much frequented by merchantmen, which come hither from May to August, to lade salt. In the neighborhood, within 200 paces of the coast, there is a large salt pond, from which immense quantities of salt are taken annually. Near the W. end there is a small harbor, and some fresh water. The E end is full of rugged and broken rocks, and destitute of vegetation; but the W. end is more level, and is full of shrubby trees. A few goats are still found here. Great numbers of tortoises or turtles come into the sandy bays to lay their eggs. Hence the island was called *Tortuga* or *Turtle island*.

ORCHILLA.

Orchilla lies 20 leagues N. W. by W. of Tortuga, and is 24 miles long, from E. S. E. to W. N. W. and 12 broad. Its shape is that of a crescent. Several small islands are separated from it by very narrow channels. On the S. W. the coast is bold, so that a ship may lay her broad-side close to the shore; but the N. side is foul and rocky. The land is generally low. A considerable number of goats are found here. The Roca islands are a cluster of islets about 7 leagues W. of Orchilla.

BONAIR.

Bonair lies 33 leagues W. N. W. of Orchilla, and 21 from the main. It is about 40 miles long from N. W. to S. E. and 15 broad. It belonged lately to the Dutch, but was taken by the English at the capture of Curaçoa. There is a good harbor on the S. W. coast. Here the Dutch had erected a fort, and there were a few houses. Lately there were in the island, a small number of Indian families, who planted yams, maize, and potatoes. The island abounds with cattle and goats. There is a good salt pond on the S. coast, where the Dutch used to collect large quantities of salt. The *Aves* or *Bird islands*, are a cluster of islets, about 6 leagues S. S. E. of Bonair.

CURACOA.

Curaçoa is 8 leagues W. of Bonair, and 16 from cape Roman, on the main. It is about 60 miles in length from S. E. to N. W. and from 10 to 16 broad. The Spaniards first settled it; the Dutch took it from them in 1632. It fell into the hands of the English during the present war. The inhabitants are almost wholly Dutch. They have long been distinguished for their industry and enterprize. The principal town is Amsterdam, in the S. W. part of the island. The harbor has been made an excellent one by the industry of the inhabitants. It is defended by a strong fort. The town is one of the largest and finest in the West-Indies, and is said to contain about 30,000 inhabitants. The public buildings are numerous and handsome; the private houses are large and convenient and the magazines are capacious and well stored. The trade of this island was in time of peace, chiefly contraband with Caraccas, and Western Terra Firma; and was worth to the Dutch half a million sterling. The Dutch furnished the Spanish colonies with negroes from Africa, and with woollens, linens, laces, silks, ribbands, hard ware, naval and military stores, brandy, spices, and India calicoes, and received in return, gold and silver coined or in bars, cacas, vanilla, Jesuit's bark, and cochineal. In time of war this island became also the common emporium of the West-Indies.

The soil of the island is naturally barren, but has been rendered very productive. The Dutch converted the pastures, on which vast numbers of cattle were formerly raised, into sugar and tobacco plantations. Here are extensive salt works, which afford a considerable supply to the English islands, and the Spanish main. Little Curaçoa is an islet near the S. E. cape.

ARUBA.

Aruba, or Oruba, lies 13 leagues W. of Curaçoa, is 15 miles long and 8 broad. It belonged to the Dutch, but is uninhabited. It abounds in timber. Orubilla is an islet a little N. W. of Aruba.

SOUTH-AMERICA.

EXTENT. BOUNDARIES. DIVISIONS. ARRANGEMENT.

Extent. THE southern half of the western continent reaches from cape Isidro, in lat. 54° S. to cape de la Vela, in lat. 12° N.; and from cape St. Roque, in lon. 34 30, to cape Blanco, in lon. 81° W. Its length from N. to S. is 4570 miles; its greatest breadth is 3230.

Boundaries. On the N. is the Caribbean sea and the Atlantic; on the E. the Atlantic; on the S. the straits of Magellan; on the W. the Pacific; and on the N. W. the isthmus of Darien, which connects it with North-America.

Divisions. The whole of this extensive country, except that occupied by the aborigines, was lately divided into colonial governments, belonging to Spain, Portugal, Holland, and France. The possessions of Holland and France have fallen to England. The two northern provinces of Spain have declared themselves independent. The three southern are in a state of revolt, and if Spain is subdued will certainly become independent. Portugal is removed to Brazil, and the province has become, and probably will continue the mother country. The present divisions of the country are, therefore, as follows:

I. *Independent States.*

1. Kingdom of Brazil, including Portuguese Guiana.
2. Republic of Venezuela.
3. Republic of New-Granada.

II. *Colonial Governments.*

1. Viceroyalty of Peru
2. Viceroyalty of Buenos Ayres } to Spain.
3. Captaingeneralship of Chili
4. English Guiana, including { 1. Dutch Guiana or Surinam; 2. French Guiana or Cayenne.

III. *Aboriginal Territories.*

1. Amazonia.
2. Patagonia.

The line of demarcation between the Spanish and Portuguese territories, as well as the boundary between Portuguese Guiana and Cayenne, ought here to be stated; that the reader may understand, at a glance, the mediterranean limits of the respective divisions. For the substance of the former we are indebted to the last editor of Pinkerton. The boundary line between Cayenne and Portuguese Guiana, was settled in September, 1801. It commences at the mouth of the river *Arowary*, 120 miles north of the Amazon, and follows that river to its source. Thence westward, it is a parallel of latitude, (and according to the map of Depons, the parallel of 1 30 N.) till it strikes the river *Blanco* or *Parima*. Cayenne does not extend any farther west. The Portuguese line,

however, continues westward till it meets the Negro, a little south of *Fort San Carlos*, or *St. Charles*, the last Spanish settlement on the Negro.

The line of demarcation between the Spanish and Portuguese territories was settled by the treaty of St. Ildefonso, in 1777. In that treaty, reference is made to the former line of demarcation, the terms of which we have never seen; and, for this reason, our account of the present limit will be in some measure imperfect. Beginning in the south, two lines are drawn between Brazil and Buenos Ayres, as far as the junction of the *Pepiri* and *Uraguay*; and the territory between the two lines is neutral. The Spanish line commences on the coast at the mouth of the small river Chuy, in lat. 33 40 S. and strikes the S. W. side of lake Merin. The Portuguese line begins on the coast, in lat. 33 3 S. and strikes the N. E. side of that lake. The lake and the isthmus, between it and the sea, from lat. 33 40 to 33 3 S. belong to neither nation. The Portuguese line proceeds from the northeast corner of the lake, along the former boundary of the province *Del Rey*, in Brazil, till it strikes the *Uraguay*, at the mouth of the *Pepiri*. The Spanish line, leaving the southwest corner of the lake, passes northwards along a chain of mountains, which gives birth to many tributaries of the Uraguay, as far as the influx of the *Pepiri*, which flows from the north into the Uraguay. Beyond this there is but one boundary, and it runs northwards up the *Pepiri* to its source, and thence pursues a straight course to the influx of the *St. Antonio*, into the *Iguazu*. It follows that river till it receives the *Iguri* from the west; then goes up the *Iguri* to its source in the mountains; then along these mountains, (which lie south of the river *Wendecreis*, or *Mibotete*,) westwards, to the river Paraguay. It ascends the Paraguay, through lake Xarayes, to the influx of the *Jauru* on the east side. It goes thence, westward, to the confluence of the *Sarare* with the *Itenas* or *Guapori*; then, down the *Itenas* to its union with the *Mamori*; and then, down the *Mamori* (which from thence is called the *Madeira*) to the former boundaries of Peru and Amazonia. It thence passes northwards, but obliquely, from the *Madeira* to the *Amazon*, striking the latter river considerably west of the *Yupura*; then, down the *Amazon* to the *western mouth of the Yupura*; then, up the *Yupura*, to the point where the frontiers of Peru, Amazonia, and New-Granada united, in 1777. How far this reaches up the Yupura we are not informed. From this point, wherever it is to make the boundary complete, a line must pass in an easterly direction to the Negro, striking it just below San Charlos, in lat. 1 30 N.

Arrangement. A geographical arrangement will here also be pursued, commencing from the northwest. New-Granada will occupy the first place, Venezuela the second, English Guiana the third. Peru, Amazonia, and Portuguese America, will follow in their order. Buenos Ayres and Chili will next succeed, and Patagonia will conclude the account of the continent. After this a small place will be allotted to a description of the American islands.

NEW-GRANADA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. RELIGION. POPULATION. MANNERS AND CUSTOMS. CITIES. COMMERCE.

Extent. NEW-GRANADA reaches on the Pacific from Punta Gorda, in about lat. 9° N. to the mouth of Rio Tumbez, in lat. 3 25 S. On the Caribbean it extends from the mouth of Rio Dorados, in about 10° N. and 82 30 W. to the mountains of Santa Martha, a little W. of lake Maracaibo, in lon. 72 30 W. The territory is about 1080 miles long, from N. to S. and has an average breadth of about 280.

Boundaries. On the N. lies the gulf of Darien and the Caribbean sea; on the N. E. and E. Venezuela, including Spanish Guiana, and Portuguese Guiana; on the S. Peru; on the W. the Pacific; and on the N. W. Guatemala. As far S. as the sources of the Apure it has for its eastern boundary the mountains of Santa Martha. To the S. of that river it stretches farther E. to the Oronoco, and still farther S. reaches to the Casiquiara and the Yupura, which divide it from Portuguese Guiana. The Amazon is its southern boundary in the interior.

Divisions. New-Granada is subdivided into 24 provinces. One of these, Veragua, is in North-America; and two others, Panama and Darien, are on the isthmus. These three compose Terra Firma proper. The following is a list of the provinces, beginning at the N. W.

I. Under the jurisdiction of the audience of Panama.
1. Veragua
2. Panama
3. Darien

II. Under the jurisdiction of the audience of Santa Fe.
4. Choco
5. Zinu
6. Carthagena
7. Santa Martha
8. Merida
9. San Juan de los Llanos
10. Santa Fe
11. Antioquia
12. Novita
13. Rapasa
14. Popayan

III. Under the jurisdiction of the audience of Quito.
15. Barbacoa
16. Pastos
17. Atacames
18. Quito
19. Riobamba
20. Guayaquil
21. Macas
22. Cuença
23. Loja
24. Jaen de Bracamoros

Names. This country, together with Venezuela, were for a long period known under the general name of *Terra Firma*, or *Tierra Firme*; a name, originally applied to the three provinces of the

isthmus, which are now called *Terra Firma Proper;* but early extended in its application, so as to include both New-Granada and Venezuela. The name of *Eastern Terra Firma* was also attached to Venezuela; and that of *Western Terra Firma* to the country now under consideration. It received the name of *New-Granada* from Spain, when erected into a captaingeneralship, in 1547.

History. New-Granada originally constituted a part of Peru. Two audiences were erected in 1547, one at Panama, the other at Santa Fe de Bogota; and the territories under the jurisdiction of both were constituted a captaingeneralship. Quito was made the seat of an audience in 1563, but the territories subject to it still belonged to Peru. In 1718 New-Granada was erected into a viceroyalty; Quito and Venezuela were annexed to it, and the audiences of Panama and Quito were abolished. Four years after these two audiences were restored, the viceroyalty was abolished, and every thing placed on its former footing. In 1739 the territories dependent on the three audiences of Panama, Santa Fe, and Quito were again erected into a viceroyalty.

A congress, assembled at Carthagena, in November, 1811, declared the country independent. How many of the provinces have united in it we are not informed.

Religion. There is an archbishop at Santa Fe, and bishops at Carthagena, Panama, Santa Martha, Popayan, and Quito. Missions are established at various places in the interior; but we have no particular account of these.

Government. All the provinces were under the government of the viceroy, who resided at Santa Fe, and had similar powers with the viceroy of Mexico. The jurisdictions of the three audiences have been mentioned.

Population. The population of New-Grenada has been estimated by some at 600,000, by others at 1,000,000. The travels of Humboldt in Mexico, have thrown new light on the population of Spanish America, and have shown that it greatly exceeds its commonly estimated amount. Probably that of this country may not fall short of 2,000,000.

Manners and Customs. Of the whites the *Chapetones*, or Europeans, are not numerous. Most of them formerly returned to Spain after acquiring a competent fortune. The families of the Creoles compose the landed interest. All the white men wear the Spanish dress, but of very light materials. The women wear a petticoat of their silk, called *pollera*, and over it one of taffety; on the body a thin white waistcoat, but this is thrown aside in summer on account of the heat. The only domestic exercise of the women, is swinging in their hammocs, and they rarely go out. Both sexes arrive early at maturity, and discover a great share of penetration; but make no advances after five and twenty. This is owing partly to the want of motives, and in the men, partly to a premature decay, occasioned by excessive debauchery. The morals of both sexes are deplorably licentious. Indolence is also a general characteristic.

The *Mestizos* are very numerous. Their complexion is a

swarthy red. Many, however, of those in the first degree are equally fair with the Spaniards; others are as tawny as the Indians themselves. They are considered as good as Spaniards, as soon as their color is equally fair. This rarely fails to be the case with those of the second degree, or the *tercerones mestizos*, and never with the *quarterones*. Even these, however, have a few marks of a partial cis-atlantic origin; particularly, the lowness of their foreheads, their harsh, lank, coarse, and deep black hair, their small thin curved noses, and some dark spots on the body. They apply themselves to various trades, particularly painting and sculpture, are remarkably ready and excellent at imitation; but at the same time, are excessively indolent and slothful. Generally they wear a blue cloth, manufactured in the country; but in this respect are not distinguishable from the whites. Prodigious numbers of the mestizo women are dissipated.

The Indians in the towns are generally mechanics. Many of them also are compelled to work on the plantations. The Indian barbers and phlebotomists are not inferior to those in Europe. They are almost universally lazy and dishonest. Their dress is a pair of white cotton drawers reaching to the calf of the leg, and a black cotton frock of their own manufacture. Over this they wear a serge cloak, and a hat of their own making. The wealthiest among them wear shoes with gold or silver buckles, but without any stockings. The Indians and mestizos are most numerous in the interior and in the south.

The negroes are found principally in the northern part of the country. The different grades of a mixed breed are much more numerous than the genuine negroes. The *tercerones*, and all of a white cast, affect the Spanish dress. They and the mulattoes are chiefly the mechanics in all the northern towns. Most of the slaves work on the plantations; the others live in the cities, and many of them are let out by their masters, whom they pay a certain portion of their wages. Their only covering is a small piece of cotton stuff about the waist.

The houses in this country are almost all of one story, and generally of wood with thatched roofs. In the larger towns in the north many of them are of stone, and in the south of unburnt bricks; though the poorer houses even in these towns, and almost all in their suburbs, are of wood. Those of two stories have the first story of stone or brick, and the second of wood. They are very generally of a mean appearance. In the north wheat bread is very uncommon. The chief substitute there is *bollo*, a bread made of maize of a white color, and insipid taste. The negroes use the cassava bread made of various roots. The *guana*, a species of lizard, and its eggs, are favorite food in this part of the country. In the south there is a much greater variety. Wheat is common, maize and quinoa also abound, and a great number of fruits and vegetables. The beef, veal, mutton, pork, and poultry of Quito are not surpassed in Europe, and are remarkably cheap.

Cities. SANTA FE DE BOGOTA was founded by Quesada, in 1538, and was made the seat of an archbishopric, in 1554, and of an uni-

versity, in 1610. It stands in lat. 4 9 N. lon. 73 36 W, in a beautiful and spacious plain, about three fourths of a mile from the banks of the Funza, a tributary of the Magdalena, and 35 miles from its mouth. It lies a considerable distance east of the western Andes. The streets are broad, straight, and regular, and the houses generally handsome. The cathedral is magnificent and richly endowed. There are besides 3 parish churches, 8 monasteries, 4 nunneries, and 1 hospital. The number of inhabitants is about 30,000. There are numerous hamlets and Indians in the neighborhood.

Quito was rebuilt by Belalcazar, in 1534, having previously been a considerable city of the natives, by whom it had just before been destroyed. It stands on the eastern acclivity of Pichinca, a lofty eminence of the western Cordillera of the Andes, about 130 miles from the Pacific, in lat. 0 13 33 N. and in lon. 77 55 W. The site of the town is very uneven and irregular. The principal square is very spacious, and has an elegant fountain in the centre. On one side stands the cathedral, on the opposite the Episcopal palace, on the third the town house, and on the fourth the palace of the audience. The four streets on each side of the square are straight, broad, and handsome; the others are crooked, and so rough and broken, as to be impassable with wheel carriages. At the sides of two other large squares most of the convents are built. Many of them are elegant. The houses are all of one story, and generally have balconies towards the street; but the doors and windows low and narrow. They are built of *adobes*, or unburnt bricks, cemented by *sangagua*, a species of mortar of uncommon hardness, invented by the Indians. The inhabitants are about 65,000 in number, of whom a sixth are whites, a third mestizos, a third Indians, and the rest blacks of the various grades.

Carthagena was founded by Pedro de Heredia, in 1533. It stands in lat. 10 25 48 N. and in lon. 75 21 14 W. on a large bay $2\frac{1}{2}$ leagues from north to south, defended from every wind, with a sufficient depth of water, and good anchorage. The entrance of the bay is very narrow. The site of the town is a sandy island, artificially connected, at the west end, with the main. The streets are straight, broad, uniform, and well paved. The houses are chiefly of stone, of one story, and have balconies and lattices of wood. The churches and convents are well built and numerous. It contains about 15,000 inhabitants. They depend wholly on the clouds for fresh water. Many of them are afflicted with the leprosy.

Panama was built by Pedro Davila, in 1518. It stands on the south side of the isthmus, in lat. 8 57 48 N. and lon. 80 21 W. It has a wall of freestone, and was formerly supplied with a garrison. The streets are straight, broad, and paved. The houses are of wood, and of one story, with tiled roofs; but those in the suburbs are thatched. Many of them were burnt down, in 1784, and have not since been rebuilt. The population is about 10,000. The harbor is formed by several islands, and is safe. Ships only come within 3 leagues of the city. Formerly it was a place of great trade.

Guayaquil was founded about the year 1530, and stands on the west bank of the river Guayaquil, in lat. 2 11 21 S. about 6 leagues from its mouth. It is very narrow, but extends a considerable distance along the river. The streets are broad and straight. The houses are of wood, and are large and beautiful. The population is about 10,000 souls. The inhabitants are the fairest in the country, and the women are uncommonly handsome. The town is defended by three forts. The river is navigable to the town for vessels of any size, and affords the best harbor on the coast.

Popayan was founded in 1536, and stands in lat. 2 50 N. and lon. 75 50 W. on the east side of a mountain of considerable height, called *M*, from the resemblance it bears to that letter. The streets are broad, straight, and level. The houses are built of unburnt bricks, and the largest are of two stories. It contains a cathedral, 3 monasteries, and 2 nunneries. The population is stated by Ulloa at between 20,000 and 25,000. Great numbers of them are negroes, and but few Indians. The Molino, issuing from the mountain of M, runs through the city. The Cauca runs about a league to the north.

Porto Bello stands on a fine harbor, on the Caribbean sea, in lat. 9 33 5 N. lon. 79 50 20 W. It was formerly a place of considerable note, but has greatly declined.

Neiva stands on the Magdalena and contains about 2000 souls.

Santa Martha lies on the east coast of a large bay of the Caribbean, called *Boca Grande*, about 130 miles northeast of Carthagena. It has a fine well protected harbor, and is a town of considerable size. It served as a place of rendezvous to the early invaders.

Commerce. Formerly the galleons from Cadiz brought once a year immense quantities of European merchandize to Porto Bello for the supply of South-America, and received in return the precious metals and the other commodities of those countries. During the long period in which this system lasted, the English carried on an immense contraband trade along the whole coast. At present the English engross almost the whole trade of this country, and a direct trade is now carried on with the various ports. If this state of things continues for a considerable period, a spring will be given to agriculture and commerce. This trade is most profitable to the English, as they receive great quantites of the precious metals in return.

CHAP. II.

NATURAL GEOGRAPHY

CLIMATE AND SEASONS. RIVERS. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY.

Climate and Seasons. THESE vary, in this extensive country, with the varieties of elevation and of latitude. In the N. the season

called winter is from the end of May to December. During this period there is an almost constant succession of thunder, rain, and tempests. From December to the end of April is the dry season. The weather now becomes agreeable, the heat being somewhat abated by winds from the N. Beside this there is an interval of about a month, from the festival of St. John, in which the rains intermit. Both seasons are very unhealthy to Europeans, and to the inhabitants of the mountains, who come down into the plains. The Spaniards, in 3 or 4 months, lose the ruddy color of health, and acquire the pale, wan complexion of the climate. Europeans are all liable here to diseases, resembling the yellow fever, and great numbers are annually carried off. The leprosy is a common disease in the north. Its miserable subjects are separated from the rest of the community. They intermarry and the disease is thus perpetuated. Another disease is the *cobrilla* or *little snake*. Another is the *spasm* or convulsion, which is always mortal.

Among the mountains every variety of climate may be experienced. Their tops are covered with snow. In descending one meets successively with spring, summer, and autumn. The plains near them are temperate and delightful; the vallies are hot. At Quito, almost under the equator, the inhabitants are never obliged to make any difference in the warmth of their dress in the different seasons. The climate has always a pleasant temperature, and is healthy there and in all the upland country. Throughout the year the days are usually clear and fine, till 2 o'clock; then the vapors begin to rise, and the atmosphere is covered with black clouds, which bring on dreadful tempests of thunder and lightning. Near sunset it clears up, and nature puts on the beautiful appearance of the morning. In these regions they call it winter from October to April, because the rains are more constant; whereas in the rest of the year 8 or 10 days of fine weather frequently follow each other.

In the S. near the coast, as at Guayaquil, the rainy season or winter sets in in December and lasts till April or May; so that they have directly opposite seasons here and at Carthagena. The rains continue day and night without intermission, accompanied with frequent and terrible thunderstorms. At the commencement of summer, the S. W. and W. S. W. breezes set in, and prevail every day from noon, till 5 or 6 in the morning. They cool the air, and keep the sky serene and bright. The fever and ague is a common disease in this part of the country throughout the winter. The black vomit has prevailed since 1740. The natives are subject to cataracts, and many are afflicted with total blindness.

Rivers. The great river Magdalena rises on the eastern side of Coconucu, a volcano of the Andes, some distance S. of the latitude of Popayan. It thence pursues a northerly course, between the chain of Santa Martha and that of Venezuela, to the bay of Boca Grande, emptying near the head of that bay, about 40 miles S. W. of St. Martha, in lat. 11 8 N. Honda, the most southern port on the river, is in lat. 5 16. Thus far it is navigable for ships of a considerable size. Its whole length must be nearly 1000 miles.

The Cauca rises on the other side of the same volcano, and,

it is said, within a few rods of the source of the Magdalena. It winds along the western skirts of the chain of Santa Martha, and unites with the Magdalena in lat. 9 35. We know not how far it is navigable. At the confluence the streams are nearly equal.

Several branches of the Oronoco are found in this viceroyalty. The *Meta* issues from the mountains of *Venezuela*, and runs E. N. E. 500 miles. It empties 140 miles above the Apura, and is navigable to Macuco about 370, and less than 40 leagues from Santa Fe. Its largest tributary, the *Casanare*, falls in 180 miles below, from the N. W. The *Guaviari* rises in the same mountains, and runs nearly parallel with the Mota for about the same distance, and falls into the Oronoco at San Fernando. It receives the *Inirrita* from the S. a tributary nearly equal to itself, about 25 miles from its mouth. The *Atacari*, a considerable stream, unites with it from the S. E. just at its confluence with the Oronoco.

Two great branches of the Amazon, the Putumayo and Coqueta, both before and after it divides into the Negro and the Yupura, run a long distance in this territory.

The river Guayaquil is the largest primitive stream in the south. It rises in the Andes, and flows westward, to the gulf of Guayaquil. In winter it is navigable for large vessels to Caracol, 120 miles, in summer to Babahoyo, 105 miles. Thus far the tide rises. It is a league broad at the mouth, and still broader at Guayaquil. In winter it is only a torrent. The Tumbez is the southern boundary of the viceroyalty.

Mountains. The Andes have already been mentioned as traversing this country from north to south. Not far from Popayan, near the sources of the Magdalena, they are said to be divided into three chains; the eastern is the chain of Venezuela, the western the proper Andes, and the middle the chain of Santa Martha. This last passes between the Magdalena and Cauca till they unite. These being broken by the former, it proceeds on the east side of the united stream, to the northern coast of the province.

The loftiest summits of the Andes are in the jurisdiction of the audience of Quito. The peak of the crater of Pachinca, near Quito, as measured by Humboldt, is 15,940 feet above the level of the sea; that of the porphyritick mountain of Antisana 19,150; and that of Cotapaxi 18,890. Tunguragua he found to be 16,500 feet high, and Chimborazo 21,440. These admeasurements were partly trigonometrical, and partly barometrical, and are believed to have been accurate. The results differ somewhat from those of Ulloa and the French mathematicians.

Botany. The botany of no country on the globe is probably richer than that of New-Granada, whether we regard the size, beauty, and durability, of its timber, the variety and excellence of its fruits and vegetables, the beauty and fragrance of its flowers, or the medicinal virtues of its various trees and plants. Unhappily, however, few of them have been described. The largest timber trees are the *caobo*, the white and red cedar, the maria and balsam tree. The two last yield the maria oil, and the balsam of Tolu. The ebony and guaiacum are common.

Between the snow of the Andes and the limits of vegetation, there is a border of stones and sand. The hardiest plants are a species of rush, resembling the *genista Hispanica*, and growing half a yard in height; the *quinual*, a tree of middling height, with a long oval leaf; the *palo de luz*, a stalk about 2 feet high, which being kindled, even when green, gives a light equal to that of a torch; the *achupalla*, a stalk, the leaf of which is eatable; the *puchugchu*, the leaves of which grow into the form of a round loaf, sometimes 2 feet in diameter, on which, when green, the tread of a mule will make no impression; the *canchalagua*, a rush, the seeds of which are a well known febrifuge; the *calaguala*, about 6 or 8 inches high, the decoction of which is a celebrated cure of imposthumes; and the *contrayerva*, a creeping plant, 3 or 4 inches long, the flowers of which are an excellent alexipharmic. In the south, the eastern side of the western cordillera is wholly bare; but the western is every where covered with vegetation to the border already mentioned. The forests below these hardy plants consist of many varieties of trees and shrubs. Of these last, three are remarkable. The *cana* or cane is about 50 feet high, and 6 inches in diameter; the hollow between every other joint contains a quantity of water. At the full moon each alternate hollow is filled with this liquid as clear as crystal; but it decreases and grows turbid with the ebb of the moon, and at the conjunction is found to have vanished. The *vijahua* is a leaf growing wild without any stem, 5 feet in length and $2\frac{1}{2}$ in breadth. The principal rib in the middle is 4 or 5 lines broad, but all the rest of the leaf is soft and smooth. It is used for covering houses, for packing salt, fish, and other goods sent to the mountains, as it secures them from the rain. The *bejuco* is a ligneous cordage, growing either from the earth or the sides of trees. After gaining the top of the nearest tree, it then bends to the earth, and creeping to another tree climbs to its top, and again inclining to the earth repeats the progress; thus forming a labyrinth of ligatures. It is so flexible that no bending or twisting can break it. The slenderest are from 4 to 5 lines, those of common size from 6 to 8 in diameter. They make ropes of an admirable quality.

The olive, almond, and grape, are exotics: the two first thrive as in their native soil; the grape is inferior to the grape of Spain. The anana or pine apple grows on a plant about 3 feet in height, resembling the aloe, and terminating in a flower formed like a lily, but of so elegant a crimson as to dazzle the eye. The fruit makes its first appearance in the centre of this flower. The Seville and China orange, the citron, and the medlaz attain their highest perfection. The lime flourishes every where; but the lemon is only found in the south. The palm is of 4 varieties: the cocoa palm, producing the cocoa nut; the date palm; the palma real, having a fruit less than the date, of a disagreeable taste; and the corozo palm, bearing the corozo, a fruit larger than the date, and of a most delicious flavor. Palm wine is made from all the four. The papaya grows on a tree, resembles a lemon, is very juicy, has a white pulp, and a gentle acid taste, and is from 6 to 8 inches in

length. The guayaba and guanabana also are trees. The fruit of the former is pectoral and astringent. The latter looks like a melon, and has a smooth green rind. The sapote is brown streaked with red. Its flesh is of a bright red, fibrous and compact. The mame is of a similar color, 3 or 4 inches in diameter, and is a species of plum. The tamarind is well known, and abounds. The mani is of the size and shape of a pine cone, and is eaten roasted or as a conserve. The platano is of three varieties. The first, the banana, is nearly a foot long, makes a wholesome bread, and is used as an ingredient in many made dishes; the second, the dominico, is smaller but more delicious; the guineo is still more palatable and seldom exceeds 3 or 4 inches in diameter. The cassia tree grows wild. The chirimoya is pronounced by Ulloa the most delicious fruit that is known. It is nearly round, from 1 to 5 inches in diameter, has a thin soft shell, and a white pulp. Its flesh contains a large quantity of juice resembling honey, and is of a sweet taste mixed with a gentle acid, but of a most exquisite flavor. The aguacate is from 3 to 5 inches long, has a thin, glossy, smooth shell of a green color, and a white pulp, and grows on a lofty tree. The guaba is a dark green pod, a foot in length, containing a spungy medulla, whose juice is sweet and cooling. The granadilla is shaped like a hen's egg, but larger. Its shell is smooth and of a light carnation. The taste is a delicious sweet with a slight acidity. The cidra and toronja are also fine native fruits in the south. Pears, peaches, nectarines, quaitambos, aurimelos, apricots, mellons, and water melons, grow in the cooler regions near Quito; and the apple and Peruvian strawberry in other warmer exposures. The tropical fruits are full of blossoms and fruit all the year round.

The oca, papa, camote, yuca, yam, sweet potatoe, and moniato are among the valuable cultivated roots.

Zoology. The horses of this country are not handsome, but gentle, docile, and full of spirit and intrepidity. The hunting horses possess astonishing fleetness and dexterity. The boasted swiftness of the European horses is dulness, compared with the celerity with which those of America run over mountains and precipices. The *llama* or Peruvian camel is common in the southern provinces. It resembles the camel in its pace, and in the shape of its neck, head, and some other parts; but has no bunch, is smaller, and cloven footed. Its color is commonly brown; some are white, and others black. In height it is equal to an ass a year and a half old. The wild boar, tiger, leopard, deer, fox, armadillo, rabbit, and squirrel are common in the forests. The *slow Peter*, or sloth, is of the size of a middling monkey, and of a greyish brown color. Black, brown, red, and streaked monkies fill the woods. They are eaten by the negroes, and often by the creoles. The *chucha* resembles a rat in appearance, but is larger. It is bred in the houses, and is eaten by the Indians.

The woods abound with birds interesting for the sweetness of their notes, or the beauty of their plumage, but these two characteristics are rarely or never united. The guacamayo, several varieties of the parrot, the cotorra, and the periquito are of the latter

description. The tulcan is noted for its singular and beautiful bill. The gallinazo feeds on filth and ordure, and is very serviceable in the large towns. The bats of this country are, if possible, the most impudent of animals. The inhabitants being compelled to leave their windows open in the night, and to sleep with little or no covering; they fly in, insinuate their teeth into a vein with all the art of an expert surgeon, and suck the blood till they are satisfied. Their numbers in the evening are inconceivable. The *condor* is the largest bird in this country, and is known frequently to seize and fly away with lambs. The *zumbador* or hummer is a night bird peculiar to the mountainous deserts. The *canclon* frequents the same places, and is of the size of a large goose. Its note sounds like its name. The wild and royal peacock, the turtle dove, the partridge, four or five varieties of the heron, and the humming-bird may also be mentioned among the common birds of this country.

The coral snake is four or five feet long, has a skin variegated with a vivid crimson, yellow, and green, and a flat and long head like a viper. Its bite is almost instant death. There are here two species of rattle snake, both of a brown color; the common one $2\frac{1}{2}$ feet, the other $3\frac{1}{2}$ long. The *culebra de bejugo* resembles a branch of that plant in shape and color, and usually hangs from it to conceal itself. Its poison is a slow, but certain death, unless relieved. The *jacumama* is an immense serpent found east of the Andes. It is 11 or 12 feet in length, and near a foot in diameter. The *ciento-pies* is a yard long, and often breeds in houses. Its bite is mortal. Scorpions are common, black, red, and yellow. Most of them are venomous. After the rainy season toads overrun the country. Alligators abound in all the rivers, are 5 yards long, and sometimes destroy men. The gallinazo sucks their eggs. The *guana* is of a yellowish green. Its flesh is a favorite food. The female often lays sixty eggs at a time as large as pigeon's eggs. Butterflies and mosquitoes of several varieties throng the country. The *nigua* is a most troublesome insect, usually living in the dust. It is extremely small, and inserts itself through the skin into the flesh of the foot with great facility. Unless speedily removed it forms a nest and lays numerous eggs; which, in a few days, become young *niguas*, and scatter in the flesh. Sometimes they penetrate even to the bone and can be extracted only with instruments.

Mineralogy. There are many gold mines in various parts of the country, particularly in the provinces of Quito, Popayan, Antioquia, and Choco. The silver mines of Marquetones in the district of Pampelona are inferior in richness only to those of Potosi. Platina is said to be found only in Choco. Copper and lead mines are abundant. The emerald mines of Muzo, in the mountains of Itoco, 50 miles N. of Santa Fe, are the most celebrated in the world.

VENEZUELA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. ABORIGINES. RELIGION. MISSIONS. GOVERNMENT. POPULATION. REVENUE. ARMY. MANNERS AND CUSTOMS. LANGUAGE. LITERATURE. CITIES AND TOWNS. ROADS. MANUFACTURES AND COMMERCE.

Extent. THIS country, lately a province of Spain, but now an independent republic, reaches, on the northern coast of South-America, from the mouth of the Essequebo to cape de la Vela, in lon. 72 30 W. This includes upwards of 1000 miles of sea coast. At the eastern end, according to these limits which are assigned to it by Depons, it has a width of 350 miles, and farther W. of 650. W. of the Oronoco it may be considered as extending S. to the Apure, a branch of the Oronoco.

Boundaries. On the N. lies the Caribbean sea; on the N. E. the Atlantic; on the E. the river Essequebo, which divides it from English (late Dutch) Guiana; on the S. the Oronoco; and on the S. W. and W. New-Granada. The immense circular peninsula between the Essequebo and Oronoco is the country called *Spanish Guiana.* It is chiefly a wilderness, inhabited by savages, and has few European settlements, except on the Oronoco. Its name is not mentioned among the provinces that sent deputies to the general congress at Caraccas; but, as it was one of the provinces of the captaingeneralship, and will probably follow the fate of the rest, we have included it in our account of the new republic.

Divisions. In the late declaration of independence 7 federative provinces are mentioned, all of which, except the isle of Margarita, have the names of their respective capitals. The following are the names of these provinces, geographically arranged:

Margarita	Truxillo
Cumana	Merida
Barcelona	Varinas
Caraccas	

According to Depons it was previously divided into

Margarita	Venezuela, in the middle, and
Cumana, in the east	Maracaibo, in the west
Guiana, in the south	

Names. For a long period this country has been known in the writings of geographers and travellers under the name of *Eastern Terra Firma.* Since 1786 the Spaniards have called it *the captain-generalship of Caraccas.* At the late declaration of independence it assumed the title of *the republic of Venezuela.*

History. Columbus discovered the country and sailed along the coast from the Oronoco to Margarita in 1498. Two missions were

attempted, by the Catholic priests, in 1512 and 1517, at Cumana; but the missionaries were massacred, and the scheme abandoned in 1519. The first attempt at conquest was made by Gonzalo Ocampo, in 1520. From the little island of Cubagua, near Margarita, as a station, he made various incursions upon the coast of Cumana and reduced a few of the chiefs to a temporary submission. The king of Spain immediately placed the country under the jurisdiction of the audience of St. Domingo. James Castellon went from St. Domingo, in 1525, and built the city of Cumana. This was the first permanent settlement. John Ampues, in 1527, laid the foundation of Coro. The next year Charles V. being greatly indebted to the Welsers, a commercial house at Augsburg, granted them the jurisdiction and possession of the whole country from cape de la Vela to Maracapana, a town on the coast somewhere between Cumana and Barcelona, with the right of extending indefinitely towards the south. The agents of the Welsers rivalled Pizarro in their treachery and ferocity. Coro, for a long period, became a slave market of Indians; and the troops of the company were constantly occupied in plundering and kidnapping the natives. Philip de Urra, in 1540, undertook an expedition against the Omegas, who dwelt around lake Parima. His attempt was entirely defeated. The Welsers were dispossessed of the country in 1550, and the jurisdiction restored to the audience of St. Domingo. The conquest of the valley of Caraccas was attempted, about 1556, by Losado, and achieved in 1567, when he built the city. That of Spanish Guiana, or the country between the Oronoco and Essequebo, was begun by Pedro de Silva, in 1568; and the city of St. Thoms, in that territory, was founded in 1586. Even at this day, however, the natives possess almost all of Guiana. The cabildos, or municipal courts, which were early introduced into the country, began, in 1556, to acquire a very unsafe influence in the government. Alonso Pacheco, in 1571, achieved the conquest of the province of Maracaibo, and built the city of Maracaibo in the same year. In 1675, on the death of the governor, the cabildos assumed the reins of government, and resisted the governor, pro tempore, appointed by the audience of St. Domingo. The court of Spain justified this resistance, and, by an act of Sept. 18, 1676, empowered the alcades of Caraccas to govern the province on the death of the governor. In 1718, this country was taken from the jurisdiction of the audience of St. Domingo, and placed under that of Santa Fe, the capital of New-Granada; but it was restored to St. Domingo in 1722. In 1725 the alcades of Caraccas imprisoned the governor and usurped the government. The parties had recourse to arms, and the governor was only restored in consequence of an express order from Spain. In 1786 a royal audience was established at Caraccas; the country was made a separate province; and the government of it committed to a captain general.

A conspiracy was formed, in 1797, by three state prisoners, to overthrow the government. An untimely disclosure alone defeated it.

In 1806, general Miranda, a native of Caraccas, placed himself

at the head of an expedition, fitted out partly at St. Domingo and partly at New-York, and sailed for this country. His object was to liberate it from the Spanish yoke. Finding his force wholly inadequate, he abandoned his men, many of whom were citizens of the United States, to the mercy of the provincial government, and left the enterprize to its fate.

In 1811 the inhabitants revolted from the Spanish yoke and declared themselves independent. The declaration bears date July 5th, 1811, 35 years and 1 day after that of the United States. The representatives justify the revolution on the ground of Ferdinand VII. having resigned his rights as king of Spain, at Bayonne, to the common enemy of the human race. Miranda is the leader of the revolt, and appears to be the great man both in the field and in the cabinet. We regret that the interests of a young republic should be entrusted to no wiser or abler hands.

Aborigines. All the Indians of this country, when it was first explored, were divided into independent tribes, containing, usually, from 1000 to 10,000 individuals. The *Caraccas* were the most numerous nation. They occupied the site of the city of Caraccas; and, in 1556, within a circuit of 40 or 50 miles, were computed to amount to 150,000, under the control of upwards of 30 caciques. The *Quiriquiris* lived eastward on the banks of the Tuy. The *Cumanagotos* appear to have possessed the whole coast between the rivers Venare and Guarapiche. The *Guaraunos* were between this latter river and the southern mouth of the Oronoco. The *Caraibes*, *Caribs*, or *Caribbees*, were between the Oronoco and the Essequebo; they were also numerous in the interior. The *Oronocos* occupied the banks of the river above the Delta. The *Omegas* were probably little inferior in numbers to the *Caraccas*, and dwelt around the lake of Parima. The *Ottomaques* inhabited a very extensive tract along the high grounds of the Oronoco above the Apure; also the banks of the Meta and Casiquiari. The *Goahiros* lay W. of lake Maracaibo, and were among the most ferocious of the maritime Indians.

Several of these tribes are still unsubdued. The *Goahiros* occupy a tract on the coast of more than 30 leagues square, between lake Maracaibo and the province of Rio de la Hacha, in New-Granada. They allow no missionaries among them, and are brave and powerful. Their numbers, in Caraccas, amount to 30,000; all of whom are under a single cacique. The nation, both in Caraccas and New-Granada, it is said, can bring 40,000 effective men into the field. Their troops are all cavalry, each carrying a carbine, cartridge box, bow and quiver. They trade with the English of Jamaica, and are hostile to the Spaniards; thither they send their children to learn the English language and the art of war. At present their chief occupation is plunder. The *Cocinas* are a small tribe, N. of Maracaibo, tributary to the *Goahiros*.

The tribes above the cataracts of Atures, in the Oronoco, are still independent. They are the *Ottomaques*, and are described as the most industrious, the gayest, and liveliest of the aborigines.

The *Omegas*, including the numerous tribes around the lake of

Parima, are as yet chiefly unknown. Their country was first explored by Philip de Urra, in 1540. An expedition, set on foot against them in 1780, was completely frustrated. According to the best information they are numerous and warlike, and occupy a very extensive country in the eastern part of Spanish Guiana, particularly between lake Parima and the high grounds of the Essequebo. On the western side of that lake it is said that they have a large, well built city. They greatly surpass the other Indians in the arts of civilized life.

The *Guaraunos* are now chiefly confined to the Delta of the Oronoco. In the numerous islands, which, for 40 leagues, clog the mouth of that noble river, they have found a secure retreat. They are independent, but peaceable. Their numbers amount to about 8000. They manufacture hammocs, and catch large quantities of fish; both of which they sell to the Spaniards.

The *Caraibes* now claim the whole coast of Spanish Guiana, from the Oronoco to the Essequebo. They have always been hostile to the Spaniards, and were always friendly to the Dutch colony, east of the Essequebo. By the permission of the Caraibes, the Dutch had advanced from the mouth of the Essequebo to cape Nassau, about 15 leagues; although the river was, by their treaty with the Spaniards, the boundary of Dutch Guiana. The *Caraibes*, before the late conquest by the English, carried on a considerable trade with the Dutch establishment at cape Nassau. The articles which they furnished were balsams, oils, gums, resins, medicinal plants, fruits, woods fit for commerce, and Indian slaves. They are brave and ferocious. The account given by the early Caraibes of the West-Indies is generally applicable to their brethren of the continent.

The *conquered Indians* are treated by the Spaniards with great lenity and kindness. They live in villages, and are governed by their own caciques.

Religion. The tribunal of the inquisition at Carthagena had the superintendency of Caraccas.

All abbeys and canonries, before the late revolution, were in the gift of the king or his representative. The persons appointed were, however, always taken from lists presented by the bishop, and universally from the first on those lists. Bishops were always presented by the king, and immediately nominated by the pope.

There are 1 archbishopric and 2 bishoprics in this territory. The first originally established at Coro, was transferred, in 1636, to Caraccas. It continued a bishopric, subject to the archbishop of St. Domingo, until the transfer of the Spanish part of that island to the French, in 1795. In 1803 it was made an archbishopric. The bishopric of Merida was established in 1777, and extends over the western part of this country, and a considerable district in New-Granada, beyond the *Goahiros*. The bishop of Santa Fe was its metropolitan till 1803. The bishopric of St. Thomas was formed in 1790, and consists of the immense province of Guiana, the province of Cumana, and the island of Margarita. All these territories had previously made a part of the bishopric of Porto Rico.

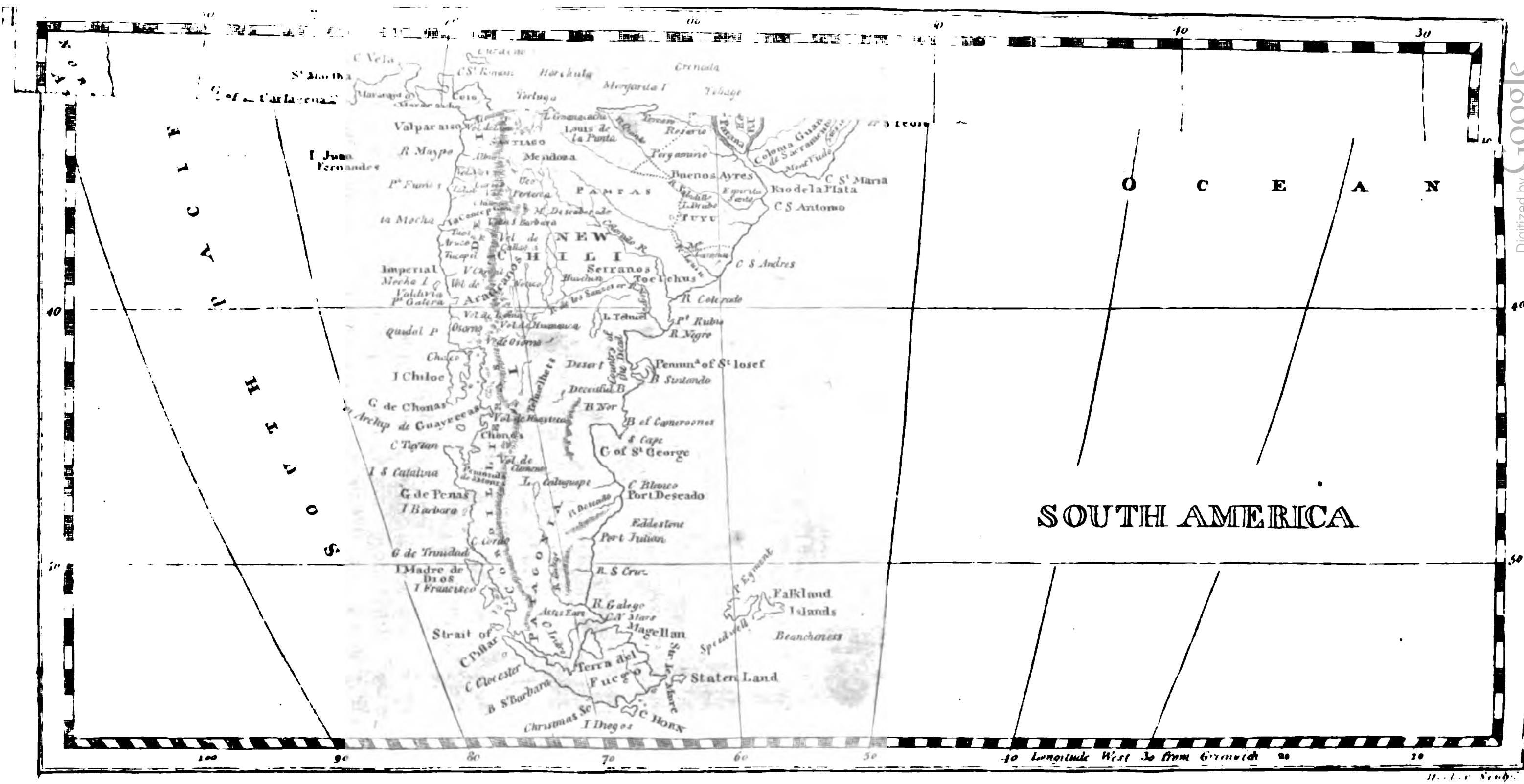
The bishop of St. Thomas had no metropolitan, till 1803, when both he and the bishop of Merida were made suffragans to the archbishop of Caraccas. The revenues of the clergy arise from tythes. The king received two ninths of the whole, and each of the bishops had a right to a fourth part of the tythes of his own diocese. In good years the quota of the archbishop of Caraccas was $70,000, and in bad years $40,000. That of the bishop of Merida was about a fourth part of the archbishop's. The bishop of St. Thomas, previous to the year 1804, had received a stated salary of $4000 from the king, who claimed the fourth of the tythes, amounting to from $10,000 to $12,000. The whole amount of the tythes was, in favorable years, about $398,000; and in unfavorable years $240,000. The average amount of the tythes for 5 years (1793—1797) was $395,268. The bishops were also compelled to pay to the king their first year's revenue in 6 annual instalments. The chapter of the archbishopric consisted of a dean, subdean, chapter, 11 prebendaries, and a treasurer; that of Merida, of a dean and 6 prebendaries; and that of St. Thomas of 2 canons. The two first chapters receive a fourth part of the tythes; the canons of St. Thomas each $600.

The *rectoral* curates officiate in parishes, where the Spanish population predominates; and are entitled to the remainder of the tythes, deducting those of the king, bishop, and chapter. The *doctrinal* curates exercise their clerical functions in the Indian villages, and receive each $183 annually.

The number of *secular* clergy, formerly very great, is greatly diminished; and that of the monks in a much greater proportion. In the late declaration of indpendence, the representatives avow an unalterable determination to live and die in defence of the Catholic religion. This will therefore probably continue the national and established religion. All others are, however, tolerated. If the civil and religious liberty of this country continue any great length of time, the catholic religion will cease to be predominant; for it never has flourished in a free country, and never can.

Missions. Two early abortive missionary attempts have already been mentioned. The first unsuccessful one was made, by 8 Franciscans, at *Piritu*, a district on the coast of Cumana, between Barcelona and the river Venare, in 1653. After converting the Indians on the coast to the Catholic faith, the missionaries advanced gradually into the interior, crossed the Oronoco, and at length reached the Negro, a branch of the Amazon, on which they have establishments. They now occupy all the ground between these remote extremes. Those in Piritu and the lower parts of the Oronoco, received from Spain $150 per annum; and those on the upper Oronoco and the Negro $200.

The rest of the province of Cumana has long been assigned to a misson of Arragonese capuchins, which commenced a year or two after that of Piritu. The Indians of the plains are at present all Catholics: those of the mountains are unconverted. These missionaries are found in all the villages between Barcelona and the Oronoco, and lately received each $111 per annum.


SOUTH AMERICA
SOUTH PACIFIC
OCEAN
Longitude West from Greenwich
PAMPAS
NEW CHILI
PATAGONIA
Valparaiso
Santiago
Mendoza
Buenos Ayres
Rio de la Plata
C S Antonio
C S Andres
C St Maria
Serranos
Toelchus
R Colorado
R Negro
I Chiloe
G de Chonas
C Tayten
I S Catalina
G de Penas
I Barbara
G de Trinidad
I Madre de Dios
I Francisco
Strait of Magellan
C Pillar
C Glocester
B St Barbara
Christmas Sd
I Diegos
C Horn
Terra del Fuego
Staten Land
Falkland Islands
Beauchenes
Port Egmont
R S Cruz
Port Julian
Port Desseado
C Blanco
C of St George
B el Camerones
B Nor
Desert
Country of the Dead
Pennna of St Iosef
B Sintando
Pt Rubia
L Telmel
Imperial
Mocha I
Valdivia
Pt Galera
I Juan Fernandes
R Maypo
Pt Fuinis
la Mocha
Quedal P
Chonos
Eddestone
R Galego
Mendoza
Tuyu
Paraguay
Colonia
Monte Video
C Vela
St Martha
Maracaybo
Coro
Tortuga
Margarita I
Tobago
Grenada

The mission of Venezuela was established about the same year. Its success was almost unexampled. In 4 years, missionary stations were established at 16 different towns and villages; great numbers of missionaries were constantly employed; 22 tribes, each using a different dialect, after no long period, became Catholics; and 8 or 10 cities and villages were founded. In a word, this mission had the merit of completing the civilization of the whole province, from the Caribbean sea, southward to the Oronoco; and thus soon rendered itself unnecessary. The Indian villages are now committed to the doctrinal curates, except a few on the Apura still in the hands of Andalusian capuchins, who lately received $50 per annum.

A mission of capuchins from Navarre was long since established at St. Faustino on the S. W. and Perija on the W. of lake Maracaibo. It was formerly much more efficient than of late. The salary of each missionary is $150.

In the environs of Varinas, there is a mission of jacobins, dependent on Santa Fe.

The mission of Guiana commenced in 1725. Thirty Catalonian capuchins were sent there that year by order of Philip V. Their labours caused the formation of more than 40 villages. Considerable numbers, even of the Caraibes, have been converted to the Catholic faith. These capuchins possess immense droves of horned cattle. The number of these in 1804, was about 150,000. The salaries of this mission were withheld after 1791, on the ground of their being unnecessary; though each missionary was entitled by law to $150 yearly.

Government. Previous to the late revolution of Venezuela, the government was entrusted to a captain general and a royal audience.

The captain general was president of the audience, and of all the tribunals, and commander in chief of the troops; but governor only in the province of Venezuela. The whole military establishment of the colony was completely under his control, and all its political relations with the colonial governments of other powers entirely entrusted to his charge. He was appointed for 7 years with a salary of $9000, and perquisites to an equal amount; but the appointment was never renewed. At the expiration of his office his administration underwent a strict examination by the council of the Indies.

The provinces of Cumana, Guiana, Margarita, Maracaibo, and Varinas, had each, also, their respective governors; who continued in office 5 years.

The royal audience, beside the president, consisted of a regent with a salary of $5300; 3 oiders with $3300 each; two fiscals, one for civil and criminal affairs, and the other for finances with $3300 each; a reporter, with $500, and perquisites; and an alguazil major, with no stated salary. This was the highest court of appeals in the province, and possessed other powers of great importance. It was entirely independent of the captain general, and had supreme authority over all the ecclesiastical courts.

The cabildos were a sort of municipal court, consisting of *alcades in ordinary*, or aldermen; of *regidors*, or common council; of a

syndic, or attorney; and of a register or clerk. Only the mayor of a municipal court was wanting. These were very early introduced, and in a short time became possessed of great influence in this province. On the death of the governor, the administration of each province was committed to the alcades in ordinary. They usurped the whole authority in 1725, and were with difficulty reduced. In consequence of this event, many of their powers were taken away. The alcades were elected yearly by the regidors.

In each town where a cabildo was established, there was also a *justice mayor*, who constituted a court of concurrent jurisdiction with the cabildo. Appeals lay from both to the audience. In other towns an officer was appointed by the governor to administer justice, called the *lieutenant of justice*, whose jurisdiction usually extended over three or four villages. His power was very great, and he held his office 2 years.

The ecclesiastical tribunals of each diocese consisted of the bishop, the fiscal proctor, and the provisor. An appeal lay to the archbishop. Its jurisdiction embraced all causes of a spiritual nature, and all matters connected with them, such as orders, benefices, patronages, tithes, marriages, legitimations, funerals, portions of nuns, and donations to churches, the disputes of priests, and all causes in which a priest was defendant. If a priest was plaintiff and a lay man defendant, the secular courts had exclusive jurisdiction.

Population. No general census has ever been taken of the inhabitants of this country. The curates, however, have always been accustomed in lent, to go round to each house in their villages, and take a list of the persons, who are, and of those, who are not, arrived at the age of confession. These lists are far from being accurate. Depons, from the best data in his possession, estimated the population in 1804 as follows:

Provinces.	Whites.	Slaves.	Freedmen.	Indians.	Total.
Venezuela, including Varinas	100,000	150,000	200,000	50,000	500,000
Maracaibo	20,000	30,000	40,000	10,000	100,000
Cumana	16,000	24,000	32,000	8,000	80,000
Guiana	6,800	10,200	13,600	3,400	34,000
Margarita	2,800	4,200	5,600	1,400	14,000
	145,600	218,400	291,200	72,800	728,000

From what is afterwards said we suppose that the independent Indians are not included in this account. They probably outnumber those that are subdued.

Revenue. The finances of this country were, in 1777, placed under an intendant general, who had subordinate intendants in each province. The taxes were laid merely on profits or rents; and were very numerous, and very badly managed. Depons gives the following statement of the receipts and expenditures for five years:

Years.	Receipts.	Expences.
1793	$1,312,188	$1,303,583
1794	1,561,931	1,639,900
1795	1,443,056	1,549,874
1796	1,389,804	1,049,247
1797	1,040,788	1,886,363
Total for 5 years	6,747,766	7,428,967
Average	1,349,553	1,485,793

In this estimate are not included the receipts from bulls, which annually produced $26,000; nor the duties on tobacco, which yielded $700,000. So much of the tobacco tax as was necessary to make up the deficit of the other taxes was retained by the government, the rest was remitted to Spain; not, however, in specie, but in drafts on Cadiz. The specie in circulation, in 1804, was estimated at $3,900,000; about one quarter in clipped money.

Army. The following was the state of the army in 1804; except that we have added 1 company of the line since formed in the province of Varinas:

Description.	Comp.		Infantry.			Cavalry.			Total.
	Wh.	Bl.	Wh.	Bl.	Total.	Wh.	Bl.	Total.	
Troops of the line	24		1,751		1,751				1,751
Artillery	7	12½	700	1,250	1,950				1,950
Militia	57	53	4,680	4,230	8,910	350	175	525	9,435
Total	88	65½	7,131	5,480	12,611	350	175	525	13,136

This force was thus distributed among the provinces:

Caraccas	6558	Maracaibo	1218
Cumana	2916	Margarita	1247
Guiana	1120	Varinas	77

Nothing like a navy was then kept on the coast, except a few shallops, all of which could not have resisted a single frigate.

Since the revolution, general Miranda is said to have led an army of 25,000 men to the attack of Valentia, the only refractory town N. of the Oronoco.

Manners and Customs. The *whites* mentioned in the table include the *chapetones* and the *creoles*. The *freedmen* include the *mestizoes*, most of the *mulattoes*, and a few *blacks*. The *slaves* comprise most of the *blacks* and a few *mulattoes*.

The number of the natives of Spain in Caraccas has always been small; the court having laid many restrictions on emigration. The whites are therefore composed chiefly of creoles.

All the whites indulge in the *siesta*, or an afternoon nap of 2 or 3 hours. Their manners are grave and formal, and the rules of etiquette are most punctiliously observed. The least neglect of them occasions a coldness bordering on enmity. The person who returns home, after a long absence, must wait for the compliment of a visit; and never calls on those who have not first called on him. On changing his place of residence, he must give notice of

it to all the neighbors. This is usually done by a card, expressing his regret at removing from so agreeable a neighborhood. The families thus notified must make a parting visit. The birth of a child is announced in the same manner; and the father adds, that the young guest is another added to the number of those, who are always ready to receive the commands of the person to whom the card is directed. Visits immediately follow. If a person is confined to the house, by a slight or dangerous indisposition, all his acquaintance must call on him. The first visits of the invalid after he gets well are in return. Each family also has a tutelar saint, on whose festivals it expects visits from all its acquaintance.

The costume of etiquette for visits and festivals is a taffeta, satin, or cut velvet coat and breeches; a waistcoat of gold tissue, or of silk covered with embroidery; a cocked hat; and a silver or gold hilted sword. Cloth is never used except in mourning, and then it is richly embroidered.

The ladies never call on each other without previous notice. Their visits last from 5 to 8 in the afternoon, and are mere matters of ceremony. Balls, entertainments, and parties of pleasure, are uncommon. Even in Caraccas and the other large towns, the inhabitants are distant and formal in their manners. Nothing is known of that friendly, cheerful intercourse, which, in England and the United States, enlivens every neighborhood. The general manners and intercourse of the inhabitants are not on this account more correct. A thousand topics of conversation, which a well bred stranger would stare at, are familiarly introduced and discussed before large circles of both sexes.

This grossness is owing to the excessive corruption of morals prevalent in this country, and in all the Spanish colonies. The debauched minds of the earliest adventurers became ten fold more licentious, by the acquisition of absolute power over the persons of the female Indians. Scarcely any but a promiscuous intercourse was for a long period known. Profligacy became thus the settled character of the manners and morals. The latter emigrants found here a state of society in which their natural and acquired licentiousness might be indulged with reputation, and the means of indulgence within their reach. It need not be added that their morals soon amalgamated with those of the creoles.

The whites marry very young; boys often at 14 or 15, and girls at 12 or 13. A young man not married at 20 is thought dilatory. Parents have little or no control over their children, as to marriage. The laws, however, give wives a strange control over their husbands. A husband must ask his wife's consent to take a journey, and must come home on the day appointed, or the magistrates will order him back. Every morning and evening the children of all classes and colors ask and receive on their knees the blessing of their father and mother. The same ceremony is repeated during the day, whenever the parents or children return from abroad, and enter the house; and whenever they see their uncles and aunts.

The minds of the creoles arrive early to maturity, but their vig-

or is soon broken by indulgence. They are universally languid and unenterprising, ignorant and superstitious. All the inhabitants are excessively litigious, and the number of lawyers is great beyond all proportion.

The inhabitants, from a principle of religion, do not directly engage in the slave trade; but purchase all the slaves that are brought to them. Slaves are rarely whipped severely, but they are criminally neglected. None of them are provided with sufficient food or clothing. None of the plantations are furnished with physicians. The slaves are almost universally dishonest and lewd. If a slave is treated unkindly, and can find any one willing to purchase him, he can compel his master to sell him for what he cost; and, if he can obtain that sum, can procure his freedom.

The emancipation of slaves has always been encouraged by the clergy and the laws. The number of freedmen and their descendants, in Venezuela, is much greater than that of the slaves. They are called *people of color*. At an early period they had the same privileges as the whites, and were even admitted to the priesthood. Since 1621, however, they have been able to hold no civil office; and, since 1654, have not been admitted into the line or the artillery. Like the Indians they are subject to a poll tax. If they abscond for 4 months, they are condemned to slavery. They all have trades, which they exercise without competition. They are even allowed to practise physic. Those who are rich may purchase the privileges of the whites. Marriages were formerly frequent between the low whites and people of color; but are now uncommon. One exception must be made: the illegitimate white children of unmarried women in this country, are uniformly exposed; because the disgrace of proclaimed maternity is irreparable; while from the suspicion of it, and of the abandoned depravity, which alone could thus commit its offspring to the care of accident, the mother suffers little or nothing in her reputation. These children are generally picked up by women of color, sometimes by black women. The boys are early received into convents and churches; the girls are left with their fostermothers, and marry people of the class among whom they are educated.

The Indians of this country have narrow foreheads, eyes of middling size; black, lank, and long hair, sharp noses, large mouths, thick lips, broad faces, and large heads. Their color is copper. Their limbs are large and muscular, but not strong. The common stature is about 5 feet; among some of the tribes, from 5 to 6. They are generally lazy, taciturn, thoughtless, stupid, and false. The wild Indians on the coast are more ferocious, than in the interior. Some of them are cannibals. They are fond of war and rank treachery and perfidy among military virtues. Their victories have always been gained by treachery, never by valor. The Caraibes alone attack their enemies face to face.

All the tribes believed in the immortality of the soul. The same persons are their priests and physicians. They are believed to be acquainted with magic and sorcery. The funeral solemnities of the tribes are various. Polygamy is practised among all

the tribes, except the Ottomaques. Married women are extremely oppressed, and are compelled to perform all the labor of the house and of the field. The Caraibes, in cases of adultery, publicly put to death both of the offenders. Retaliation is the common punishment in the other tribes. In some, however, husbands exchange wives for a limited period.

Both sexes paint their persons with a red paint, made of oil and *rocou*. When they visit each other, hospitality requires, that the women wash away the paint on their guests that is sullied with dust or dirt, and give them a fresh varnish. The men wear feathers on the head, and bits of gold and silver suspended from the ear and nose.

Towards the civilized Indians the laws are lenient. A quantity of land is always allotted them. They are not compelled to execute any of their contracts with Spaniards. To be baptised, they need only assent, by signs or words, that drunkenness is a sin; that idolatry, superstition, and falsehood, are mortal sins; and that fornication, adultery, incest, and uncleanness, are horrible sins. The confessions of a converted Indian are often ludicrous. When directed to kneel, he squats upon the ground; and, instead of acknowledging the sins, which the confessor charges on him, stoutly denies them, till the confessor brings witnesses to prove them. He then owns them, and goes away cursing those, who gave the priest information. They are all excessively fond of ardent spirits, and are habitually addicted to lying and stealing.

Language. The language of the creoles is a corrupt Spanish, with many Indian words intermixed. Few of them understand its grammar. They usually speak it in a soft, languid manner.

Literature. There is a seminary at the city of Caraccas, consisting of a college and a university united. The university was founded by the king, in 1722; the college, more than 60 years before, by Anthony Gonzales d'Acunna, a bishop of Caraccas, distinguished for his piety, who died in 1682. This double establishment has a school for reading and writing, and three Latin schools. It is under the government and instruction of a chancellor, a rector, and 12 professors: 3 of rhetoric; 2 of philosophy, one of whom must be a layman or a secular priest, the other a dominican; 4 of theology, two for the scholastic, one for the moral, and one for the positive or explanatory, who must be a dominican; 1 of the civil law; 1 of the canon law; and 1 of physic. The funds of the institution, in 1804, amounted to $47,748 producing, annually, $3387. In that year the students were divided as follows:

In the lower classes, comprehending rhetoric	202
In philosophy	140
In theology	36
In the canon and civil law	55
In physic	11
At the school for singing by note	22
	466

The degree of bachelor is conferred by the rector; those of licen-

tiate and doctor by the chancellor, who must be a canon. The oath of every student is to maintain the immaculate conception; to teach and practise neither regicide nor tyrannicide; and to defend the doctrine of St. Thomas.

The system of education pursued here is very defective. The boys are not taught their own language nor arithmetic, and they never learn either. The books which they study are the Latin grammar of Nebrija, the philosophy of Aristotle, the institutes of Justinian, the Curia Philippica, and the theological writings of Gonet and Larraga.

Cities and Towns. CARACCAS, the capital of the republic, was founded, in 1567, by Don Diego Losada. It is built in a valley, which extends from E. to W. 4 leagues, between the mountains of that vast chain, which coasts the sea from Coro to Cumana. This valley has an elevation of 406 toises, or 2598 feet above the level of the sea. Mountains of equal height lie on the N. and S. at a small distance from the city. Its site is a square with a side of 2000 paces; and its surface every where uneven and irregular, just as nature left it. The descent is from N. to S. The millstream, Guira, bounds the southern part of the city, and the Anauco, the eastern. The Caroata runs through it near the eastern side, separating the quarter of St. John from the rest of the town; and flowing through deep banks, and over a rocky bed, with the rapidity of a torrent. The Catucho runs farther W. through the city, and feeds innumerable public and private fountains. Over it 5 bridges are thrown; one of stone over the Caroata; and an elegant one over the Anauco, opening a communication with the valley of Chacao. The streets are straight, about 20 feet wide, and cross each other at right angles, at the four cardinal points. The parallel streets are about 300 feet apart. There are 3 public squares; the largest, Plaça Mayor, has a side of 300 feet, is well paved, has two entrances on each side, and contains the public markets. On the E. and S. sides it is covered with the old barracks, which entirely destroy its beauty. That of Candellaria is surrounded by a tolerably regular road, and an iron paling, on masonry of unequal height. Its surface is level. That of St. Paul has a fountain in the middle, and is uneven. There are 5 other open areas of considerable extent. The houses are well built; some are of brick; but the greater part of masonry, in frame work, after the manner of the Romans. This is made in the following manner. They prepare a kind of mortar, called *tapia*, the best sort of which is composed of lime and river sand, with flints or small pebbles intermixed; the poorest sort, of sand and earth, with a very small portion of lime. This is placed in a strong frame of boards 5 feet long and 3 broad without a bottom, and made extremely hard and solid by beating with a large pestle. Successive layers of this composition form the sides of the house. The best sort is very enduring, and, when rough cast and whitewashed, looks as well as if built of hewn stone. The roofs are sharp, or angular, and are covered with curved tiles. The houses are, in general, neatly and even richly furnished. The cathedral is far from being handsome or regular. It is 250 feet by 75. There

are 5 parish churches, and 3 private ones, 3 monasteries, 1 house of preachers, 1 hospital of Capuchins, 2 nunneries, 1 house of *Educandas*, 1 hospital for men, another for women, and a third for lepers. The churches, except the cathedral, are well built; that of *Alta Gracia* would do honor to the first cities of Europe. It was built chiefly by the free men of color. The theatre is an indifferent building. The new barracks are elegant edifices, and stand on a handsome elevation. The parish certificates gave a population in 1802 of 31,234; but the whole population was in fact between 41,000 and 42,000; of whom a fourth were whites, a third slaves, a twentieth Indians, and the rest freedmen. These last are artisans. The number of servants is very great. Beggars throng the streets. Thefts and assassinations are frequent; the last are committed chiefly by the Europeans. The police is ill administered. The climate of Caraccas is delightful. The temperature varies, in winter, from 52° to 73°; and, in summer, from 69° to 85°. It lies in lat. 10 31 N. and in lon. 66 43 W.

Cumana, a quarter of a league south from the gulf of Cariaco, on a sandy dry soil, was built in 1520, and is the oldest city in the whole of Terra Firma. The river *Munsanares* waters it on the south. A hill lies back of the town, and extends along the whole eastern side. There is one church and 2 monasteries. It contains 24,000 inhabitants, chiefly creoles, who are of a superior character to their countrymen. They are industrious and enterprising. A fort on the hill contains 230 regulars, and a company of artillery. The climate is warm, but healthy. Lat. 10 37 37 N. lon. 64 10 W.

Maracaibo is situated on the W. bank of the lake of Maracaibo, or rather of the strait, which connects it with the gulf of Maracaibo; and about 6 leagues from the northern extremity of that strait. The principal part of the city is on a small bay, setting up westward, one league from the strait; the other part is to the N. on the strait itself. About half the houses are built of lime and sand; of which a few are covered with tiles, and the rest with a kind of reed, called *enea*, which grows on the borders of the lake. The other half are built entirely of reeds and thatch. The number of inhabitants was 22,000, in 1801, when the town received an addition of 2000 from St. Domingo. About 5000 are slaves, 5000 freed persons, and the rest whites. The inhabitants are excellent soldiers and sailors, and are better informed than the rest of their countrymen. There are here 1 parish church, 1 chapel, 4 monasteries, and 4 nunneries. The climate is very hot, but not unhealthy to the natives. The only water to be had in the town is the water of the lake. The town is subject to terrible thunderstorms, and occasionally to earthquakes. Lat. 10 30 N. lon. 71 46 W. 140 leagues from Caraccas.

Barcelona was founded in 1634, by Don Juan Urpin. It is built on a plain, on the left bank of the Neveri, a league from its mouth. Its streets are unpaved, and always muddy or dusty. The town is neither well planned nor well built. It has 1 parish church, a hospital of Franciscans, and 14,000 inhabitants, of whom half are

whites. Immense numbers of hogs always patrole the streets. Lat. 10 10 N. 20 leagues from Cumana.

GUANARA was founded in 1593, and stands on the Guanara, a branch of the Portuguese river, one of the tributaries of the Apura. The streets are wide and straight, and the houses are well built. There is a large, handsome parish church and a hospital. Population 12,300. The situation of the town is delightful. The riches of the inhabitants consist chiefly in cattle, which are exported by Coro, Porto Cavallo, and the Oronoco. Lat. 8 14 N. lon. 69 55 W. 92 leagues S. S. W. from Caraccas, and 24 S. E. from Truxillo.

MERIDA was founded in 1558, in a valley 3 leagues long and $\frac{3}{4}$ of a league broad. Three streams flow on the borders of the town; the *Mucujun* on the E. the *Albarregas* on the S. W. and the *Chama*, the largest, on the S. They all unite a little below, and flow to lake Maracaibo. There are here a cathedral and another church, 4 chapels of ease, 3 convents, and a hospital. Population 11,500. They have manufactures of cotton and wool. Their carpets are celebrated. The west wind here is malignant; the temperature is very variable, and the quantity of rain is very great. Lat. 8 10 N. lon. 71 25 W. 80 leagues from Maracaibo; 140 S. E. from Caraccas; 25 from Varinas.

BARQUISIMETO was founded in 1552. It stands on an elevated plain, which is open to every breeze. The streets are strait and broad, and the houses well built. The parish church is handsome. There is also a hospital, and a convent of Franciscans. Population 11,300. The inhabitants are chiefly planters. Lat. 9 45, 150 leagues N. N. E. from Santa Fe.

TOCUYO, 15 leagues S. W. of Barquisimeto, stands in a valley. It is regularly planned; and the streets are straight and wide. The houses are good. There is a parish church, a chapel, and 2 convents. Population 10,200. Lat. 9 35 N. lon. 70 20 W.

CORO was founded by John Ampues, in 1527. It stands in a dry, sandy plain, at the bottom of the gulf of Coro, and 2 leagues S. of the isthmus, which connects the large peninsula of Paragoana with the main. The harbor has a bold shore, admits the largest ships, and opens into the bay 1 league from the town. The streets are straight, but not paved. The houses are well built, but many of them bear the marks of the ravages of time; and the town generally looks like decay. Its commerce is trifling. It contains 2 parish churches, 1 monastery, and 10,000 inhabitants. Water is brought from half a league on asses. Lat. 10 8 N. lon. 70 5 W. 55 leagues from Maracaibo.

SAN CARLOS, in lat. 9 20 N. is 60 leagues S. W. of Caraccas. It is large, handsome, and well divided; and contains 9500 inhabitants, and a neat parish church. The heat is very great. Live stock, particularly cattle, horses, and mules, form the chief riches of the people.

MARACAY, near the N. E. corner of the lake of Valencia, stands in the valley of Aragoa; and has a sandy soil, but a healthy climate. The streets are not paved. Three fourths of the houses are built

of stone, with elegance and solidity. The parish church is a very handsome edifice. Population 8400. Thirty years ago the town was a mere hamlet. The inhabitants are distinguished for their industry, and they have rendered the whole valley a garden for an extent of 15 leagues.

Tulmero, 2 leagues from Maracay, is in the same valley. It has a handsome church, is well built, and contains 8000 inhabitants, and is of no long standing.

Valencia was founded in 1555, by Alonzo Dias Moreno; and lies half a league W. of the lake of Valencia. Its site is a beautiful and fertile plain. The streets are broad and generally paved. The houses resemble those of Caraccas. There are 2 parish churches, one of which stands on the E. side of a beautiful open square, and one monastery. Population upwards of 8000. About 60 years since the inhabitants were the laziest in the province. They did nothing but swing in their hammocks, or walk the streets with a sword dangling by their side. After want had stared them in the face so long, that they had got used to him; the commandant, to prevent them from starving, drove them by main force into the fields and compelled them to work under severe penalties. A most wise and upright governor! Would that there were many such! His efforts wrought an entire change in their character. This town is a thoroughfare between the interior and Porto Cavello. Lat. 10 9 N. lon. 68 25 W.

Victoria, 6 leagues E. of Tulmero in the valley of Aragoa, is built on uneven ground, and contains 7800 inhabitants. Its cathedral is one of the handsomest in America. Cagoa, with 5200 inhabitants; San Matteo, with 2800; Mamou, with 3000; Escobar, with 5400; and Magdalena, with 2700; are all in this delightful valley.

Truxillo is built between two mountains in a narrow ravine, which has the shape of a coffin. It was founded in 1556, and in 1678 was destroyed by the buccaneer Gramont. It contains a parish church, a chapel, 2 monasteries, a nunnery, and a hospital; and has a population of 7600. The inhabitants are chiefly occupied in husbandry, and are afflicted with goiters. Lat. 8 40, 20 leagues from Merida, and 30 from Guanara.

Porto Cavello has the best harbor in Spanish America. It is defended from every wind, and is deep, convenient, and spacious. The plan of the city is irregular. The body of the town is on a peninsula, which has been made into an island by a canal, over which a single bridge is thrown. The other houses lie W. of the canal. It contains 1 church and 2 hospitals. The population is 7500. The whites are chiefly engaged in commerce, and the town is the emporium of a wide extent of country. Fresh water is conducted by canals from a neighboring river. On the S. side of the town are extensive marshes, which render it extremely unhealthy. Lat. 10 20 N. lon. 68 10 W. 30 leagues from Caraccas.

St. Philip has the Yarani on the E. and its tributary the Arva on the W. It stands in a fertile country, is well built, and contains

6000 inhabitants, who are distinguished for their industry. Lat. 10 15 N. 13 leagues from the sea, and 50 W. from Caraccas.

St. Thomas, the capital of Guiana, is on the S. bank of the Oronoco, 90 leagues from its mouth. The streets are straight and paved. The houses are built of lime and sand, and have flat, terraced roofs. It contained, in 1803, 6575 inhabitants. Ships go up the river to the town in from 15 to 30 days. The river's bed is here full of rocks, shelves, and sands. The climate is tolerably healthy.

Curiaco stands on a river of the same name, which falls into the gulf of Curiaco. The inhabitants, 6500 in number, are chiefly occupied in raising cotton. Their plantations furnish annually more than 3000 quintals, the best that is grown in the country. Ten leagues E. N. E. of Cumana.

Carora is on the banks of the Morera, 30 leagues S. of Coro. It is tolerably well built, has broad and straight streets, a handsome parish church, a chapel, and 6200 inhabitants. Lat. 10° N. 15 leagues from lake Maracaibo.

La Guira, the port of Caraccas, is more frequented than any on the coast. The road is open to every breeze, and the depth does not exceed 8 fathoms, at a quarter of a league from the beach. The houses are meanly built, and the streets narrow, crooked, and badly paved. It has one parish church, and contains 6000 inhabitants; of whom 3000 are in the gunboats, and 711 in the garrison. The road from Caraccas to La Guira is cut straight over the mountains. The distance is 5 short leagues, which loaded mules perform in 5 hours, and under the saddle in 3½. The ascent from La Guira to the top of the mountain is 640 toises or 6095 feet, and the descent to Caraccas 234 toises, or 1497 feet. In wet weather the road is extremely laborious.

Varinas is in lat. 7 40 N. among the tributaries of the Apura, and contains 6000 inhabitants. Its tobacco commands the highest price.

San Fernando, on the Apura, contains 6000 inhabitants, chiefly occupied in husbandry. It is well built, and has a single church.

Roads. The roads of this country have hitherto been extremely neglected. Bridges are scarcely known, except in the towns.

Manufactures and Commerce. The most important manufactures are those of tobacco, indigo, and sugar.

The commerce of the country was never of any consequence, till 1634, when the Dutch siezed on Curraçoa. From that time, for a whole century, the Dutch carried on a very important contraband trade with the inhabitants; and of 65,000 quintals of cacao, the annual produce of the province, only 21,000 were exported in the regular channels. In 1728 some Biscayan merchants were formed into a commercial company, called the company of Guipuscoa; and, in 1734, it was permitted to send to the province as many vessels as it pleased. From 1730 to 1743, the company shipped to Spain 858,978 quintals of cacao, and lowered the price from $80 to $45. In 1751 the residence of the company was removed from St. Sebastians to Madrid. The company kept 10 armed vessels on the coast, at an expence of $200,000. Prodigious sums had also been

laid out at La Guira and Porto Cavello. Six merchant ships, of 300 tons each, were annually sent from Spain. Hides and tobacco were exported to the amount of $200,000; and, in 1763, cacao, to the amount of 80,659 quintals. In consequence of gross abuses, which afterwards crept into its management, it was dissolved in 1773. A commerce, with few restrictions, was afterwards permitted, by the council of the Indies, between many of the ports of Spain and La Guira, and at length with several others in the province. The merchants of Spain employed commission merchants in the province, who received 5 per cent. on sales, and 4 on purchases. The exports, in 1796, from Spain to La Guira, the only port at that time thrown open, were as follows:

In free and national articles	$932,881·75
In articles of contribution	753,442·37½
In foreign articles	1,429,487·37½
	$3,118,811·50

The duties on these articles, on entering, amounted to $281,328. The articles themselves were brought in 15 ships, 4 polacres, 2 zebecs, 21 brigs, and 1 schooner; total 43 vessels. The prospect of a war with England, in 1796, seriously diminished the exports from the province to Spain, which amounted only to $2,098,316, transported in 37 vessels, and paying a duty of $138,052.

The exports to Vera Cruz are also considerable; but the contraband trade with the foreign colonies of other nations was very great, particularly with Jamaica, Curraçoa, Trinidad, and Surinam. The amount of imports in this trade, in 1804, was estimated at $937,500. This we presume was exclusive of those from Jamaica; for, in 1801, no less than 400 vessels were employed in the contraband trade with that island. Porto Cavello alone employed 100, and exported in that year to Jamaica articles to the amount of $1,300,000. The capital articles of export from the country are tobacco, cacao, indigo, cotton, mules, hides, and coffee.

At present the ports are all thrown open to the ships of all nations. The island of Jamaica, however, will probably engross the chief trade, as it does that of the whole coast of New-Granada, Mexico, and the Spanish islands.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. BAYS. PENINSULAS. SEA. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS. NATURAL CURIOSITY.

Climate. THE towns on the coast, which enjoy a regular land and sea breeze, and those near and on the mountains, have a milder temperature than would be expected from their tropical situation.

The greater part of the country, however, is scorched by a vertical sun without any thing, in the dry season, to screen it from its rays. We know of no place that has a more delightful temperature, throughout the year, than the city of Caraccas. It is thus stated by Depons:

	In winter.	In summer.
Generally at 6, A. M.	58°	72°
at 2, P. M.	73	79
at 10, P. M.	68	75
the *maximum*	76	85
the *minimum*	52	69

Winter and summer are the only seasons. Winter commences in April, and lasts till the first of November. It is merely the rainy season, and is colder only in consequence of the rays of the sun being hidden by clouds. During this season it rains one day with another for the space of 3 hours, and oftener in the evening than in the morning. Some days, however, are entirely dry, and in others it rains incessantly. During winter all the rivers are in a state of inundation, and the low plains become temporary lakes. In summer rains occur but occasionally. Terrible storms of thunder and lightning were common throughout the country before 1792. During the subsequent 12 years the rains were more abundant, but there were few thunder storms. No earthquakes had been felt since 1779, till December, 1797. Since that time they have been frequent, particularly in the province of Cumana; that of December, 1797, threw down almost all the stone edifices in the city of Cumana. Four smart shocks were felt at Caraccas in May and July, 1802. These agitations of the earth, however, are far from being so violent, as those of the West-Indies, or Peru.

Face of the Country. The northern part of this country, near the sea, is mountainous. The land between the Guarapiche and the Oronoco is a mere level. North of the Oronoco, commences a plain, at first narrow, but gradually widening westward, as far as the mouth of the Apura. There the Oronoco bends to the south, and the plain in that direction becomes at once of unknown width. Westward it reaches 4 or 5 degrees of longitude, to the mountains of New-Granada. In the rainy season, the northern plain of the Oronoco is overflowed, to an immense extent, and nothing is then discoverable but here and there a hillock, and the tops of the tallest trees. The country on the Oronoco, in Guiana, is also a plain; but the rest of that province is not, as yet, sufficiently explored. We only know that it contains extensive plains, and several broad ranges of mountains.

Soil and Agriculture. The soil of this country is described as generally rich. The vallies, between the mountains north of the Oronoco, are fitted for any species of culture; and are the seat of most of the valuable plantations. That of Aragoa, in 1786, contained 186 plantations. The plains of the Oronoco furnish immense pastures, and numberless herds of cattle are dispersed over their whole extent. The land near and on the coast of Venezuela is generally good; as is that of Cumana, from the Venare to the

city of Cumana. But the whole of the coast eastward, as far as the Guarapiche, is dry, sandy, and ungrateful. Much of the province of Maracaibo is of the same kind. A rich tract, however, commences 25 leagues south of the city, and all that lies south of the lake, is among the best land in the country.

The soil of Guiana is described, as throughout, very fertile, and of a most active vegetation. Lower Guiana, which has been most explored, is said by Depons to be exceeded in richness by few lands in America.

The agriculture of this country has always languished. The only object of the adventurers, during the first century after its discovery, was to search for gold and silver. During the second, and half of the third, the titles to a great proportion of the lands were unsettled, and the peace of the colony wholly broken up by disputes and lawsuits. This difficulty was not fully removed, till the decree of October, 1754, gave the audience the power of granting all new lands, and of pronouncing definitively on the titles of those already occupied. The causes, which have operated since to depress the agriculture of the country, are the following. The custom of the Spaniards not to alienate any property, but to borrow money on it at an interest of 5 per cent. when scarcely any real property will yield 4: the great proportion of the land in the existing plantations held *in mortmain:* and paying a rent to the church of 5 per cent. for the part so held: the constant residence of the planters in the cities, which they rarely leave to visit their plantations, oftener than once a year: the entrusting of the oversight, as well as labor, of plantations to mulattoes and negroes, because no whites can be found, who are not too proud or too lazy to work: and the want of a sufficient number of slaves, arising partly from the frequency of emancipation, but chiefly from the prohibition of a direct traffic with Africa.

The great objects of agricultural attention are cacoa, indigo, cotton, sugar, and tobacco.

The cacao is indigenous, and till 1774, was the only plant cultivated. All the cacao plantations lie either north of the mountains, which coast the sea, or in the vallies between the mountains. The former extend only from Cumana west, to the mouth of the Tocuyo. The land must be light, rich, and free from stones, furnished with reservoirs of water, and not exposed to the north. After being cleared, it is crossed with small ditches. The great objects are to screen the plants from the direct rays of the sun, and to afford them sufficient water. *Bananas* and *erytrines* are set out in the new plantations 2 months before the cacao. The bananas serve as a shade the first year, but last no longer. The erytrines come forward the second year, and answer the same purpose, as long as the cacao plants last. The seeds of the cacao are planted in a rich nursery, in November, and when 3 feet high are removed to the plantation, and set out in squares or triangles 14 or 15 feet apart. The plants are carefully trimmed, till they are 4 feet high. Afterwards three shoots, at equal distances, are suffered to put forth, and the rest are cut off at the distance of two fingers from

the stock. [redacted]s taken that the trees grow straight. The enemies of the [redacted]o, are various species of worms and flies, that devour the leaves and bark; a disease called *taint*, and monkeys, squirrels, stags, and the agouti. The fruit often withers from the want of watering, from its too long continuance, and from too abundant rains. The fruit grows in pods. One slave will take care of, and harvest 1000 trees, which will yield from 1000 to 1500 weight of fruit, according to the quality of the soil. There are 2 harvests; the first in the latter part of June, the second in the latter part of December. After the first is cleared of the pods, it is carefully dried in the sun. That which is best preserved will not keep over 10 months. In every Spanish war the cacao plants have on this account been greatly distressed. The tree is not in a state of perfect produce, till the eighth year in the vallies, nor till the ninth on the coast. In the former it continues productive, till the age of 30; in the latter till 50. The cacao of this country is the best in the market. That of Orituco, particularly, is of superior weight and excellence.

Indigo was introduced into cultivation, in 1774. It is cultivated chiefly in the vallies of Aragoa. Land of a light soil, well cleared, and drained, is necessary. The seed is sown in holes 5 inches deep, and from 10 inches to 2 feet apart, according to the richness of the land; in each hole, as many grains as can be taken in the thumb and finger. It must be sown when the earth is well soaked with r[redacted]n. Weeds spring up at the end of 15 days, and must be eradicated with the utmost care. In 3 months the plants are fit for cutting, which is done one inch above the ground. They shoot again and are fit for a second cutting in a somewhat less period. The plants thus cut are carried to the manufactory. This consists of three large vats, built one above another. The upper vat, called the *steeper*, is 18 or 20 feet long, 14 or 15 broad, and 20 inches deep. The plants are all placed in this, and kept carefully under water. An active fermentation soon commences, and the water at first turns green, and then gradually blue. This process usually lasts about 12 hours, and the utmost care is necessary to stop it at the proper time. The liquor then runs through an orifice into the second vat, called the *beater*, which is deeper, but narrower than the first. The object here is to separate the carbonic acid, and to facilitate the reunion of the blue fecular or sediment. This is done by violent agitation. The water is then poured off, and the sediment is then emptied into the third vat, or the *repository*, in which it is only partially dried. It is then hung up in sacks till the water is pressed out, and afterwards exposed in boxes to the rays of the sun. While retaining a little moisture it is cut into inch cubes; and, when perfectly dry is packed in sacks of coarse linen, covered with a beef's hide, hermetically sewed. Each sack contains 100 pounds, and is called a *ceroon*.

The culture of cotton was introduced in 1782. The plantations are found in many of the vallies. It is here planted in May and June, and blossoms always in November. This is the upland cotton of Carolina.

That of coffee was not known here till 1784. Hard and cold clay, and light sandy ground on a bed of marle, are the only soils unfit for it. The best cultivators plant the seeds in a nursery, and then transplant them. But generally the seeds are sown directly in the plantation. The plants in poor soils should be 4 feet apart; in rich, 8. In the former, the best planters lop them off at $2\frac{1}{2}$ feet from the ground; in the latter, at 4 feet. Generally, however, they are permitted to attain their full growth, which is from 24 to 26 feet. For the two first years, the land wants constant weeding. The chief enemies of the plant are drought, rain during the time of blossoming, an over growth of fruit, a variety of insects, fogs and hurricanes. The fruit is gathered from the tree by shaking or picking. One negro will gather 3 bushels a day; and 100 bushels of fruit, just from the tree, yield 1000 pounds of merchantable coffee. It is then dried, cleared of its pellicle by mills, and afterwards winnowed. The coffee of this country is not distinguished for its excellence.

Sugar is raised in large quantities, but chiefly for home consumption. It is of an indifferent quality.

Since 1779, tobacco has been raised only for the king of Spain. It is grown in the vallies, and requires a fat and humid soil. The plants are taken from nurseries, and set out in holes 2 feet distant, which are arranged in lines 3 feet apart. Constant weeding is necessary. The plant is attacked by various species of worms. The buds are cut off to promote a distribution of the sap, through all the leaves. A small, bluish spot, at the joint of the leaf, indicates its ripeness. The leaves are gathered as they mature; and, after being properly dried and cleansed, are rolled into the various shapes in which they appear in the market.

Cattle, in Guiana and on the plains of the Oronoco, constitute almost the exclusive object of agriculture.

Rivers. The Palmar and Sulia are the chief tributaries of lake Maracaibo.

The Tocuyo rises 15 leagues south of Carora, and runs northeast from that town 50 leagues. It is navigable to Banagua, 40 leagues. It flows through a fertile country abounding in forests.

The Aroa and Yaracay run northeast, each 40 leagues, and empty, the first 10, the latter 13, east of the Tucuyo. The Yaracay is navigable to within 2 leagues of St. Philip.

The Tuy rises in the mountains of San Pedro, 10 leagues southwest of Caraccas. It runs east about 50 leagues, and is navigable to St Lucia.

The Unare, or Venare, separates the provinces of Caraccas and Cumana, and runs north, between 30 and 40 leagues. It is navigable 6 leagues, to Santa Antonia.

The Neveri runs west or north 20 leagues, and empties just below Barcelona. It is too impetuous to be navigable above that town.

The Manzanares is only distinguished by having Cumana on its banks, a quarter of a league from the sea. Its mouth is 10 leagues east of the Nevari, and 27 of the Unara.

The Guarico rises on the east side of Mount Brigantin, and runs northeast to the gulf of Paria. It is about 45 leagues in length, and is navigable to the fork of Fantarna.

The Oronoco has already been described. Its upper branches on the left side, above the Meta, are not in this country, and the Meta runs chiefly in New-Granada. The Apura, the next branch on the same side, rises in the mountains south of lake Maracaibo, and runs southeast and east about 520 miles, falling into the Oronoco by several mouths, which embody a number of large islands. About 20 leagues from the Oronoco, its northern arm receives the St. Joan from the north, and still lower down the Guarico, both rivers of the province of Venezuela. The Apura is navigable upwards of 180 miles.

The Caura is said to rise in the mountains of Parima, near the sources of the Oronoco. Its course is west of north, and it falls into the Oronoco about 40 leagues above St. Thomas. The Caucapana, a smaller stream, empties from the same side about 20 leagues below. The Caroni, far the largest southern tributary, heads in the eastern part of Guiana, and empties about 20 leagues below St. Thomas. According to the map of Depons, its length exceeds 400 miles.

The Guani is the largest branch of the Essequebo.

Lakes. Lake Maracaibo is in the western part of this country. Its form is nearly that of a decanter, lying from south to north, with its neck communicating with the gulf of Maracaibo. Its length, from the mouth to the southern extremity, is 50 leagues; its greatest breadth 30; and its circumference 150. It is easily navigated by vessels of the greatest burden. Hurricanes are not frequent. Its waters are usually fresh, and fit for drinking. A strong north wind renders them brackish, as far as Maracaibo. Here the neck of the lake is 3 leagues wide.

The lake of Valencia, the *Tacarigua* of the natives, from E. N. E. to W. S. W. is 13½ leagues long; and, in the widest part, 4 broad. It lies in a valley, surrounded with mountains, except on the west. It is about 6 leagues from the sea, from which it is separated by inaccessible mountains. It receives 20 rivers, and has no visible outlet. Within a few years its waters have seriously decreased. The land deserted by it is of astonishing fertility. Its water is heavy, and of a nauseous taste. It contains numerous islands, and is not easily navigated.

Bays. The large bay, through which the lake of Maracaibo opens into the main sea, puts up between the peninsulas of Cocinas and Paragoana. In some of the maps it is called the *Lake of Venezuela;* in others the *Lake of Maracaibo.* The latter is obviously the most proper. Its greatest width is upwards of 120 miles, and the width of its mouth, between capes Chichibatoa and Macolla, 40.

The bay of Coro is triangular, and is on the east side of the peninsula of Paragoana.

The bay of Tacaragua is a league and a half east of the Tuy.

It is 7 leagues long, and abounds in alligators and shell fish. A quicksand at the mouth renders it inaccessible from the sea.

The gulf of Cariaco extends 10 leagues from east to west; and, in the widest part, is 4 leagues broad. In the middle its depth is from 80 to 100 fathoms. Its waters are as placid as those of a lake, because they are sheltered by mountains from every wind, except from the sea breeze, which blows S. W. by W.

The gulf of Paria, called by the Spaniards *Triste*, has Trinidad on the east, and the coast of Cumana on the northwest, west, and south. On the north it opens into the main ocean, between point Paria on the west, and point Blanco on the east. Between these capes three islands intervene, making four openings, called the *Dragon's Mouth*. The largest, between cape Paria and Chacachacares, is 2 leagues broad. The second, between that island and Navios, called *the Vessel's Mouth*, is much smaller. The third, between Navios and Monas, is *the Egg's Mouth*. The fourth between Monas and cape Blanc is called *Los Monos* or the *Monkey's Mouth*. This gulf is 25 leagues from east to west, and 15 from north to south. Its depth varies from 8 to 30 fathoms. The Guarapiche and several mouths of the Oronoco fall into this gulf. It opens on the southeast between capes Foleto and Ycacos, into the channel of Trinidad. It is extremely difficult to enter the gulf, through either opening, on account of the immense force of the waters of the Oronoco.

Peninsulas. The peninsula of Paria extends eastward about 25 leagues, on the north of the gulf of Paria. The chain of mount Brigantin passes through it, and cape Paria is its eastern extremity. The peninsula of Araya is about 7 or 8 leagues long, and every where narrow. Cape Araya is its western extremity. Both of them are barren. The peninsula of Paragoana lies west of the bay of Coro, and stretches from northwest to southeast, 20 leagues. The isthmus, 2 leagues north of Coro, is only 1 league wide; and the peninsula itself 12 leagues. It is inhabited by Indians, and a very few whites, and is fit only for grazing. Great numbers of cattle were formerly raised here, and smuggled over to Curraçoa. The peninsula of the *Cocinas*, on the other side of the gulf of Maracaibo, is larger, and inhabited only by Indians, who are subject to the *Goahiros*. Cape de la Vela, the most northern point of South-America, is the northwest extremity of this peninsula.

Sea. The *Caribbean* sea has been mentioned, as washing the northern coast. The English gave it this name from the *Caraibes*, who occupied the Caribbean islands, and a part or the whole of this country. The Spaniards and French call it the North sea. The tides, from cape Paria to cape de la Vela, are irregular, and scarcely perceptible. East of cape Paria, they are very powerful. The regular wind on the coast is a sea breeze, by day, from northeast by east; and a land breeze, by night, from southwest by west. The first, however, is constant at sea. A species of worm, called *Taret*, abounds in all the rivers, ports, and roads, which will destroy a ship, unless graved every three months. All the ports and

roads, except Porto Cabello, are exposed to a monstrous surge or rolling of the sea, which is extremely inconvenient and dangerous.

Mountains. It has herctofore been remarked that a chain of mountains, called the *mountains of Venezuela*, branches from the Andes near Quito, in a N. N. E. direction, and makes for Venezuela. Near the western border of the province of Varinas this chain divides. The left branch, called the *mountains of Maracaibo*, pursues a northerly course, and passes west of lake Maracaibo, terminating near cape de la Vela. This is the boundary between the province of Maracaibo and New-Granada. The principal branch runs N. N. E. as far as Barquisimeto, and thence its direction is, on the whole, nearly east to the peninsula of Paria. Its breadth is commonly 15 leagues; sometimes 20; and no where less than 10. Its common height is from 4000 to 5000 feet. The Pichaco, near Caraccas, is 7688 feet, and the Tumeriquiri 5610. Near St. Philip it first approaches within a few leagues of the coast; and, a little eastward, the ridge passes between the lake of Valencia and the sea. Between the Tuy and the Venare, it verges to the south; and, through the greater part of the province of Cumana, the ridge is from 30 to 35 leagues from the coast. After its northern bend, near the sources of the Guarapiche, it is called the *Mountains of Brigantin;* and, in the remainder of its course to the peninsula of Paria, it pursues a N. N. W. direction. The great northern branches of the Oronoco all issue from this range.

We have nothing to add to our former account of the mountains of Parima, a chain that branches from the Andes, near Popayan, and traverses the province of Guiana.

Botany. Immense forests every where overspread the mountains of Venezuela. These furnish the best timber for ships and houses. The pardillo, and a very hard oak, the *quercus cerus* of Linnæus, are used for door frames and door posts; cedar, black, yellow, and red ebony are abundant; mahogany is not very common, and is of an inferior quality. Iron wood grows every where. Brazil wood and fustic are the only coloring woods yet discovered. The *quinquina* tree, which yields the Peruvian bark, the tamarind tree, the sarsaparilla, and the guaiacum, are the most important trees and plants of a medicinal nature.

Zoology. The *cayman* is of the crocodile species but larger and more sluggish. It is from 15 to 18 feet long. Its skin is covered with strong scales, impenetrable by a ball. It abounds in the Oronoco. The *iguana* is a lizard 2½ feet long, and of a greenish color. The *chiquia* is red, and has the nose of a sheep. The *lapa* has red hair, with white spots, and is the size of a terrier. An animal of the otter genus is called by the Spaniards the *water dog*. All these are found in the Oronoco. The *biron* is a small animal found in the brooks and pools. Its hair is white with black ringlets. The *manati*, a species of sea cow, abounds near the mouth of the Oronoco. It is of the size of an ox, and yields a great deal of oil.

The *tiger* is common in the forests of Guiana. Those of Venezuela abound with birds, distinguished for the melody of their notes, and the richness and beauty of their plumage.

Mineralogy. *Gold* mines have been discovered in various places, but none of them are now wrought; one at Apa, near the banks of the Tuy, was very rich, but its very place is now forgotten. Several *copper* mines, of a superior quality, are wrought in the jurisdiction of St. Philip. Besides supplying the country, 170 quintals had been annually exported previous to 1804.

Salt abounds on the coast, but the most abundant salt pit is that of Araya, which may vie with any in America, not excepting Turk's island. The salt is of a beautiful whiteness, and when dug up consists partly of fossil, and partly of mineral salt. The pit is worked for the king. From 14,000 to 15,000 quintals are annually dug, but the pit is capable of yielding at least 100 times that quantity.

Mineral Waters. The country abounds with them. They are of various descriptions, as the hot, the cold, the ammoniacal, the ferruginous, the nitrous, and the acidulous. A spring in the vallies of Asagua has a temperature above 72°, and several approach to the heat of boiling water.

Natural Curiosity. In the mountain of Tumeriquiri, there is an immense cavern, called the cavern of *Guacharo*, famous among the Indians. A river, of some magnitude, issues from its mouth, and millions of nocturnal birds have chosen it for their habitation. The Indians suppose that it is the passage, through which the soul goes to the other world.

ISLAND OF MARGARITA.

This island lies N. of the peninsula of Araya, from which it is separated by the channel of Margarita, 8 leagues in width. It lies between lat. 10 50 and 11 10 N. and between lon. 63 50 and 64 39 W. The island consists of two peninsulas (the eastern of which is the largest) connected by a narrow isthmus. Point Arena is the western cape, cape de la Isla, the northern, and point Mangle, the southern. The island derives its name from the pearl fishery on its coast. Columbus discovered it in 1498. Charles V. ceded it to Marceau Villalobos in 1524, and the Dutch burnt the capital in 1662. The population of the island is stated, by Depons, at 14,000, viz. 5500 whites, 2000 Indians, and 6500 slaves and free people of color. This island has long been a favorite resort, on account of the facility of carrying on the contraband trade. *Assumption* is the capital, and stands nearly in the centre of the island. Three other villages are called the Valley of St. John, the Valley of Margarita, and the Valley de los Robles or of Oaks. The best harbor, Pampatar, is on the E. S. E. Here are very strong fortifications. The second, De la Mar, is a league to the W. The third, Del Norte, is on the N. side. Cotton hammocs and stockings are manufactured here of a very superior quality.

The soil is a sandy surface, a foot in thickness, mixed with hollow and rotten madrepores. A little cotton and sugar is cultivated, but not enough to supply the inhabitants. A very valuable pearl fishery is carried on on the S. coast, particularly between Margarita and the island of La Coche. The Indians are the divers, and

are compelled to work 3 months in the year, at a rial a day. The largest pearl ever known was procured here, and bought by the king of Spain. Its value was estimated at 25,000*l.* sterling. Great numbers of parrots, and other curious birds, are found here, and form a considerable article of commerce.

GUIANA.

THIS name is attached to the very large extent of country, between the mouths of the Oronoco and Amazon; an extent of sea-coast of 1100 miles. The Amazon bounds it on the S; the Negro, on the S. W.; the Casiquiari and the Oronoco, on the W.; the Oronoco, on the N. W.; and the ocean, on the N. E. and E. As the Negro and Oronoco unite by means of the Casiquiari, this whole tract is a real island, entirely separated by water from the rest of the continent. From the mouth of the Amazon W. N. W. to the mouth of the Apura a tributary of the Oronoco, it is about 1260 miles in length; and from the Negro to the ocean, about 700 in its mean breadth.

This country was lately divided into Spanish, Dutch, French, and Portuguese Guiana.

Spanish Guiana extends on the coast, from the Oronoco, to the Essequebo. In the interior, it is bounded, on the N. W. W. and S. by the Oronoco; and on the E. by the Essequebo. It has already been described under the article *Venezuela*.

Dutch Guiana extended, from the Essequebo to the Maroni, 350 miles along the coast. According to the map of Depons, it reached into the interior, on the Essequebo, about 220 miles, to lat. 4 15; and, on the Maroni, about the same distance, to the mouth of the Araoua, in lat. 3 15 N.

French Guiana extended along the coast from the Maroni to the Arowary, or Aracuari, 450 miles. The Maroni was its western boundary, as far as the mouth of the Araoua, below which it extended westward to the Essequebo; and by the treaty with Portugal, in Sept. 1801, France appears to have considered it as reaching to the Blanco or Parima. Its southern boundary N. was the Arowary to its source, in lat. 1 30; and thence, a line running due W. to its western frontier. This last was agreed on between France and Portugal in 1801. Previous to that time this province extended on the coast only to the Oyapoc; which empties just W. of cape Orange, only 220 miles from the Maroni.

Dutch and French Guiana, having lately fallen into the hands of England, now constitute English Guiana.

Portuguese Guiana extends along the coast from the Arowary to the Amazon, about 120 miles. The Amazon is its southern boundary; and the Negro its southwestern. The parallel of lat. 1 30

N. separates it from French Guiana, as far as the Blanco; and thence westward, from Spanish Guiana, as far as the Negro.*

ENGLISH GUIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. ABORIGINES. GOVERNMENT. POPULATION. MANNERS AND CUSTOMS. BUSH NEGROES. CITIES AND TOWNS.

Extent. THIS extensive country, comprehending both Dutch and French Guiana, reaches, on the coast, from the Essequebo to the Arrowary, 800 miles. Its length, in the S. from the ocean westward to the Essequebo, is about 500 miles. Its greatest breadth, in the W. from the Portuguese line northward to the ocean, is about 350. In the E. the coast tends gradually southward, and makes the width much less.

Boundaries. On the N. and E. is the Atlantic; on the S. Portuguese Guiana; on the W. the Essequebo, which divides the territory from Spanish Guiana.

Divisions. We have already mentioned, that the western and smallest part of this country lately belonged to the Dutch; and the eastern to the French. The Dutch territory was divided into 3 districts: Surinam, on the E. extending from the Maroni to the Corantyn, 180 miles; Berbice, in the middle, between the Corantyn and Abary creek, 70 miles; and Demerara, on the W. between Abary creek and the Essequebo, 100 miles. Demarara province was subdivided into two districts, Essequebo on the W. and Demarara on the E. We know not whether French Guiana had been subdivided.

Names. The name *Guiana* has long been given to the whole country between the Oronoco and Amazon; but we know neither its origin, nor the time when it was first applied. The Dutch colony has most generally been called *Surinam*, a name derived from the river, on which Paramaribo, the largest town, is situated. The French colony is generally called *Cayenne*, the name of a city in Normandy, first given to the capital, and thence transferred to the colony.

History. Vincent Pinzon discovered Guiana in 1500. He traversed the whole coast from the Amazon to the Oronoco. In 1605 Robert Harcote, an Englishman, planted a colony at the mouth of

* That the parallel of lat. 1 30 N. is the boundary between Portuguese and Spanish Guiana, is concluded from the declaration of Humboldt, as quoted by Depons, that the Portuguese territory reaches nearly to fort Charles on the Negro. Fort Charles is a little N. of the parallel of lat. 1 30 N.

the Oyapoc; and, on his return, obtained a patent for the whole of Guiana. The scheme, however, miscarried. A small colony was planted on the Surinam, by Robert Marshal, in 1634. In 1635 the French, under Bretigny, planted themselves on the island of Cayenne. They attempted, also, to settle Surinam, in 1640, but abandoned it the same year. The English planted themselves there the year following. The Dutch admiral, Binks, broke up the settlement at Cayenne in 1646. Charles II. granted Surinam to lord Willoughby in 1662. Two years after the French reoccupied Cayenne. The Dutch, having been expelled from Brazil in 1662, drove the English from Surinam in 1667. In the latter part of the same year, John Harman, an Englishman, took Cayenne, and retook Surinam. They were restored in 1674; the former to France; the latter to Holland, in exchange for New-York. Surinam fell into the hands of the English near the close of the last century, and was restored in 1802. It was taken again on the 4th of May, 1804. Cayenne was taken in 1809.

Aborigines. The Indians very far in the interior of Guiana are not known. Those near, and on the coast, constitute four distinct nations. The *Caraibes* are the most numerous, brave, warlike, and industrious. They reside chiefly on the coast in Spanish Guiana, between the Oronoco and Essequebo, though considerable numbers are found on the east side of the latter. They are of a middle stature, and a lighter complexion than any of the four, except the *Arrowauks*. Their language is manly and articulate, and pronounced with sharpness and vivacity. War, hunting and fishing are their chief employments: agriculture and domestic concerns are left to the women and children. The women cultivate the maniac and plantains; make the cassava bread and a liquor resembling ale; spin cotton; and weave and dye their hammocs. They live in villages; and by blowing a shell, a thousand may be collected in half an hour. They wear fish teeth, rounded and strung together, as ornaments. Their arms are bows, with poisoned arrows; and heavy clubs, made of iron-wood with sharp edges, which will divide the skull at a single blow. The Dutch used to bribe them to capture the interior Indians for slaves. They are always at variance with the Spaniards, and frequently commit hostilities upon their settlements on the Oronoco. They still retain a tradition of an English chief, who many years since landed among them, and encouraged them to persevere in their enmity to the Spaniards. It is said that they preserve an *English Jack*, which he left them, that they might distinguish his countrymen. This was undoubtedly Sir Walter Raleigh; who, in 1595, made a descent on the coast of Guiana, in search of the fabulous golden city of *Manoa del Dorado*, and conquered fort Joseph on the Oronoco. At the insurrection of the negroes of Berbice, in 1772, the governor hired them to assist the colonists. They fought very bravely, killed many of the negroes, and ate their bodies. They never however eat any of the human species, except their enemies taken or killed in battle. The colonists trade with them for canoes, of from 10 to 70 feet in length, formed of single trees, hollowed by fire;

for cotton hammocs; for bees wax; for balsam Capoiba; for several kinds of curious woods; but chiefly for slaves: and in return give them fire arms, India cottons, hatchets, knives, fish hooks, combs, looking glasses, red coral beads, and glass beads.

The *Worrows* inhabit only the sea coast, chiefly between the Demarara and Surinam; the same are found on the Oropoco. They are larger and darker than the Caraibes, and have irregular, disagreeable features. They inhabit only the low, wet, marshy places, adjacent to the sea, and live chiefly on crabs and fish. They are slovenly, timid, and indolent; yet patient and contented. Often too poor to procure an apron of cloth, they wear a piece of bark, as a substitute; and yet they are often seen with thin oval plates of silver hanging from their noses. Their language is dissonant, and their articulation indistinct and drawling.

The *Accawaws* live near the sources of the Essequebo, Demarara, and Berbice; resemble the Worrows in size, but are lighter, and have less disagreeble features. They are all distinguished by a circular hole in the lower part of the upper lip, half an inch in diameter, in which is inserted a piece of wood of equal size, which is cut off externally almost even with the skin, while the inner end presses against the teeth. They are grave and reserved, artful and cunning. Their language is solemn and distinct, but harsh. Though not numerous, their skill in poisons renders them very formidable. Like the Caraibes they make incursions into the interior for slaves, and the vicinity of their residence exposes them to frequent reprisals. To prevent this all the avenues to their houses are guarded by sharp pieces of hard wood, planted in the earth and poisoned; except only one obscure winding path, known to their countrymen by private marks. They bring to the colonists slaves, the balsams *Capoiba* and *Arracocerra*, the roots of *hiarra* for fishing, the oil of *carraba*, various kinds of curious woods, monkeys, parrots, and parroquets; and receive the same things in return as the Caraibes.

The *Arrowauks* live beyond the Worrows, 20 or 30 leagues from the sea. They are of a middle size and stature, straight and well proportioned. Their skin is whiter than that of the other tribes; their features regular and agreeable; their teeth white and even; lips thin; eyes black and sparkling; hair long, straight, and black. Their young women may often boast of personal beauty; but, when old, their shapes are in various parts deformed. A narrow strip of blue or white linen or cotton around the waist is their only clothing. They are fond of beads and feathers, and paint themselves with *arnotto*. In temper they are cheerful, friendly and humane; but somewhat timid and cowardly. Their language is narrow and confined, but distinct and harmonious, and resembles the Italian in softness and multiplicity of vowels. They live in families and neighborhoods, usually near the banks of rivers. On four forked sticks, at the four corners, they lay four poles, as the frame of their houses; and cover them with others, in a lateral direction. Over these they lay the leaves of *troolies*, which they tie with split *nibbees*. Their furniture consists of two or three small

stone pots, a large jar for making a fermented liquor, called *piwarree;* a flat stone, to bake on; several shells of gourds and calabashes; a hammoc for each person; a hatchet and two or three knives; a small looking glass and a comb; a little arnotto paint; and a gourd filled with the oil of Carraba. Their arms are muskets, sharp clubs, and poisoned arrows.

We have already mentioned that the aboriginal inhabitants of all the West-Indies, except the Bahamas, were *Arrowauks;* and that the *Caraibes* had driven them from all the Caribbean islands, except a part of Trinidad, long before the discovery of Columbus. Both of these nations of islanders were of Guianese origin, and the accounts already given of them still apply in many respects to their primitive stocks in this country.

Government. The Dutch possessions formed three distinct provinces. Each had its governor appointed by the mother country, and its council or court of police. The governor, as executive, was assisted by the council, consisting of a fiscal, appointed by the mother country, and some other persons, (in Demarara 4 in number) appointed by the electoral college. The governor might dissent from their opinion: but, in that case, took the whole responsibility on himself. A court of civil and criminal causes was established in each province, consisting of the governor, fiscal, and 5 other members chosen by the electoral college. In the province of Demarara there were two such courts, one for each district. The electoral college consisted of 7 members chosen for life by the voters. Every white male, possessing 25 slaves, had a voice in their election.

The government of the French colony, for a considerable time previous to the capture, had been vested in that blot on the character even of villany, the infamous Victor Hughes. His administration was made up of robbery, piracy, bribery, rape, torture, murder, and assassination.

The English had appointed a governor general over the Dutch territory in the latter part of the year 1804. We know not whether the French colony is annexed to his jurisdiction, or whether it constitutes a separate government.

Population. The district of Demarara is said to contain 3000 whites, and 40,000 slaves. The province of Surinam is said to contain 6000 whites; and Stedman states the number of slaves at 75,000. We have seen no estimate of the population of the district of Essequebo, of the province of Berbice, or of the colony of Cayenne. Almost the whole, both of French and Dutch Guiana, is possessed by the Aborigines. The settlements in the latter are chiefly on the rivers.

Manners and Customs. The English and Dutch constitute the mass of the white population of the colony of Surinam. Germans, Prussians, Russians, Swedes, Danes, Spaniards, French, and Americans, make up the residue. The morals of all have been terribly relaxed by the climate. The wealthy creoles all have their harems, which are filled with black and mulatto women, procured in many instances from the Windward islands, particu-

larly Barbadoes. As soon as a European arrives, he purchases one of these females to perform all the duties of a wife, except presiding at the table. The children are often sent to England, to learn some trade; and return to practice it. The white women, both creoles and Europeans, are very licentious, and complain much that they are neglected for the tercerones, mulattoes, samboes, and blacks; but this preference of the latter class is general, and proves how far our species can sink below the inferior creatures. Labor is here performed only by slaves. The whites are excessively indolent. Most of the whites of Cayenne are French. They are equally licentious in their manners with those of Surinam.

Bush Negroes. These are a collection of wild negroes found in the interior of the Dutch colony. Their origin is to be traced to the year 1667, when the Dutch obtained possession of Surinam. Many of the English planters at that time removing their effects, considerable numbers of their slaves deserted, and ran into the woods. Here they were joined by other runaways. When the French attacked the colony, in 1712, the Dutch planters, to prevent an insurrection of their slaves, removed them into the interior. Many of them improved the opportunity to desert to the *Aucka* or *Bush* negroes. From that period they became a formidable body, and soon after engaged in open hostility with the colony. Their principal head quarters were the forests high up the Surinam. In 1761, peace was concluded with this body. In 1772, a most formidable revolt broke out among the negroes on the *Cottica*, which spread desolation over the most fertile parts of the settlement. The colonists were obliged to procure the assistance of the Caraibes. Many of the negroes were killed. The rest retreated. Their numbers, in various parts of the Dutch colony, are, at present, very considerable; far too great to be attacked, with success, by any force which the colony could muster. They are called the *Aucka* or *Bush* negroes, and are constantly increasing in numbers by the accession of runaway slaves.

Cities and Towns. PARAMARIBO is the largest town in all Guiana; and stands in a pleasant gravelly situation, on the west bank of the Surinam, 15 miles from its mouth. The streets are all straight, and are planted with trees, such as oranges, limes, lemons, shaddocs, and tamarinds. The houses are chiefly of wood. The town contains 2 churches, and 2 synagogues. Von Sack estimates the population at 20,000; viz. 2000 Europeans, 3000 Jews, 4000 free people of color, and 11,000 slaves. The town is defended by a fort, called *New-Amsterdam*, near the mouth of the river.

CAYENNE lies in lat. 4 56 N. lon. 52 15 W. on the north point of the island of Cayenne; which lies at the mouth of Cayenne river, and, on each side, is separated only by an arm of that river from the main. The town is seated on the western arm, which is here a league broad. The fort which commands it is strong enough for any vessels, which can come within gun shot. The town is divided into the Old and New. The New is the largest and best built. The streets in it are straight and broad. The

houses are chiefly of wood, some of them elegant. The palace of the government, and the ancient mansion of the Jesuits, are the only edifices worthy of notice. They both front the place of parade. This is bordered with two rows of orange trees of the largest size, which exhale an exquisite fragrance. The number of whites is about 1200, exclusive of the garrison; that of free blacks and slaves in proportion.

STABROOK is the chief town of Demarara. It stands on the east bank of Demarara river, near its mouth; and is built on the flat strand, amid various canals. The houses are of wood, two stories high, and stand on a low brick foundation. The rooms project in all directions to catch the luxury of fresh air, so that the ground plot is usually in the shape of a cross. All the public buildings are of wood. The population is stated, by Bolingbroke, at 1500 whites, 2000 free people of color, and 5000 slaves. There are no taverns. The inhabitants are hospitable. The whites dress in gingham trowsers, and a muslin shirt; the negroes in blue pantaloons, or often a simple towel of checking. The inhabitants rise at 6; breakfast on coffee, meat, wine, and fruit; dine at 5; and spend the rest of the day lounging at an exchange. There is but one church, in which an English and Dutch clergyman officiate, alternately. Fort William Frederic, at the mouth of the river, defends the town.

About 60 miles above Paramaribo, on the Surinam, there is a considerable colony of Jews, descended from Portuguese Jews, who were invited to settle here by the Dutch government. Their principal town is very populous, and is called the *Jew's Savannah.*

AMSTERDAM, a town lately founded, is the capital of Berbice, and stands on the river of that name.

OYAPOC is a small town on the west bank of Oyapoc river, defended by fort Louis.

Kourou is a settlement on the coast, 10 leagues northwest of Cayenne, which was undertaken, by the command of the duke de Choiseul, in 1763. He sent a colony of about 12,000 persons unprovided with necessaries, and in the most rainy season of the year. The great body of them perished in a short period.

Sinamari is a small fort 5 leagues N. W. of Kourou.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. MOUNTAINS. BOTANY. ZOOLOGY.

Climate. THE climate is unhealthy; though, with proper care, less so than has been supposed, and really less so than formerly. The year is divided into two wet and two dry seasons. December and January constitute the short rainy season. February and March the short dry one. The long rain occupies the four following

months; the heaviest rains are in June. The four remaining months constitute the long dry season. Changes in the temperature are gradual. The greatest heat experienced in two years, from May, 1805, to June, 1807, was 91°; the least 75°. The sea breeze furnishes a constant affusion of delightful air, from 10 in the morning, to 5 in the evening.

The *leprosy* is a common disease here, and in all the tropical regions of America. Its symptoms are a swelling on the tips of the ears, an eruption of red tubercles on the face, neck, limbs, &c. which, after a while, assume a livid or copper color, and become schirrous, often ulcerating and discharging a fœtid ichor. The features swell and enlarge, the eyebrows are inflated, and the hair, together with the beard, fall off. The *alæ nasi* are tumified and scabous; the nostrils patulous, and sometimes ulcerated; as is also the *septum nasi*, which is then depressed, together with the nose. The lips swell, the voice becomes hoarse, and the nails rugose and scabrous. At length the disease corrodes the fingers and toes with a dry, scabby, gangrenous ulcer; in consequence of which they putrify and separate, joint after joint. The legs are swelled, scaly, indurated, and covered with tubercles. The face becomes shining and the breath offensive. The disease is universally deemed infectious, and lepers are separated from the society of mankind. They are sent into the woods, and there wear out a life of solitude. The disease is always incurable.

The *yaws* are spungy, fungous, yellowish, circular protuberances, infesting the whole body; between 1 and 3 inches in circumference, and so nearly contiguous, that the end of a finger cannot be inserted between them. A small quantity of yellowish pus appears at the extremity of each. All the negroes have it once, and some of the whites. It is communicated by the flies, that have been feasting on a diseased object, to those persons who have sores or scratches, which are uncovered. The backs of the negroes being often raw by whipping, and always uncovered, they scarce ever escape it. It is cured by mercury and camphor.

Guinea worms are found in the cellular membrane of the African negroes, and move through its cavities over the whole surface of the body. They are extracted with great difficulty, and sometimes prove fatal. Worms in the intestines are here extremely distressing. The West-India dry belly ache, intermittent fevers, and bilious putrid fevers are also among the more violent diseases.

Face of the Country. The surface is almost every where flat, to a great distance in the interior. A narrow strip along the coast in the Dutch colony is generally cleared, and plantations are found on the banks of all the rivers. The rest of the country is still forested. Much of the coast of Cayenne is marshy, and subject to inundations from the rivers. Few settlements are made in the interior. Near the sources of the large rivers the country in both colonies is mountainous.

Soil and Agriculture. All travellers agree in the surprising fertility of the soil, both of Surinam and Cayenne. It is generally a rich, fat, clayey earth. Sugar and coffee are the capital articles of

agriculture, and after them cotton and cacao. Indigo, maize, cassia, and vanilla are also cultivated; and Cayenne pepper forms a considerable article of exportation from the French colony. According to Stedman there were, in 1774, between 600 and 800 plantations of sugar, coffee, cacao, and cotton in the province of Surinam, which yielded an annual produce of the value of more than a million sterling.

Rivers. The Essequebo rises in the mountains of Parima, a little S. of the Portuguese line, and pursues a course W. of N. about 500 miles to the ocean; emptying by a mouth 3 leagues wide. It is deep and navigable. About 60 miles from the sea it receives the Guyani, a large river from Spanish Guiana. Fort Essequebo stands at the confluence. The cataracts in this river are about 200 miles from its mouth.

The Maroni is supposed to rise in the same mountains. The old Dutch line ascended it to lat. 3 15 N. above which we believe the river has not been explored. It is a large, navigable stream, but less than the Essequebo, emptying in lat. 6° N.

The Surinam, or Zealandria, rises in a lower chain of the same mountains, and runs about 400 miles. It is navigable for ships of any size to Parimaribo, where it is a mile wide, and for sloops, 80 miles further, to the falls.

The Demarara runs nearly parallel with the Essequebo, about 200 miles, and empties, a little E. of it, by a mouth 2 miles wide. Over a bar at the mouth, in the highest tides, there are 4 fathoms water.

The Berbice pursues a northeasterly course, as is said, of more than 300 miles, of which it is navigable 200. A bar at its mouth has 16 feet water, at high tides. The Conya, a narrow, but deep stream, falls into it a mile from its mouth.

The Corentyn and the Suramaca are large rivers between the Berbice and the Surinam.

The Comewine runs N. about 150 miles, and empties half way between the Surinam and Maroni. A few miles from its mouth it receives the Cottica from the E.

Cayenne river is a large stream, which runs in a N. E. direction, and empties by a mouth a league broad.

The Oyapoc rises in the mountains of Parima, and is a larger river than the preceding. It empties just W. of cape Orange.

The Arowary, or Aracuari, is the southern boundary.

Mountains. The *mountains of Parima* are described under the article America. The principal chain in the eastern part of Spanish Guiana passes N. and E. of lake Parima, between it and the Essequebo. From the head of that river its course is eastward, sometimes in Cayenne, and sometimes in Portuguese Guiana. A spur from the principal chain crosses the Essequebo at the cataracts, and, tending E. N. E. is broken by the Surinam not more than 100 miles from its mouth. Eastward of that river it approaches within 20 miles of the sea, terminating not far from the Maroni. There are various spurs from the principal chain in Cayenne, but we have seen no particular account of them.

Botany. The botany of Guiana has been admirably illustrated

by Bancroft. The most important cultivated trees and plants, are the cacao, cotton, and coffee trees, the cane, the plantain, banana, coco nut, physic nut, palma christi, manchineel, guava, avigato pear, cassava shrub, male and female poppau, Angola pea, arnotto, French guava, American aloes, silk grass plant, common aloes, vegetable musk plant, ocro, cow itch, ginger, Indian yam, Guinea yam, shaddoc, China, Seville, and sour orange, Lisbon, and St. Helena lemon, lime, citron, pine apple, borgamot, sappadilla, mame, custard apple, cashew nut, tamarind, Arabian jessamy, water lemon, Granadilla vine, and many others. Most of these also grow wild. Many of its forest trees are highly valuable for their size, and the excellence of their timber. The *cabbage tree* is 120 feet high, and 7 in circumference. The cabbage grows on the top of the trunk, and has the taste of an almond. It is broiled, or eaten as sallad. The *eta* is of the same species but smaller. The *cokarito* and *manicole* are still smaller varieties.

The *silk cotton tree* is 100 feet high, and 12 in circumference, and is free from branches about 70 feet. It yields triennial crops of silky cotton, and is the favorite tree for the Indian canoes. The *locust* grows 70 feet high, and 9 over, and yields a yellowish resin, superior, as a varnish, to the Chinese *lacque*. Its wood, and that of the *sipeira*, or *green heart*, which resembles it in size, are very durable, heavy, and solid. The wood of the *purple heart* is of a bright crimson, also very durable, and more valuable than the preceding. The *bullet tree* is 50 feet high, and 7 in circumference. Its wood is among the heaviest and most durable that are known. The *wasceba* or *bow wood* is of a similar size and remarkably elastic. The *iron wood* is of the same size, and is used by the Indians for their heavy clubs with sharp edges. The six last grow in the interior, on a dry elevated soil, and are transported at a great expence, to the West-Indies for wind mills.

The *guaiacum* is 40 feet high, and 4 round, bears a violet flower, and a small reddish yellow berry. The *wild cinnamon* is tall and slender, and has a fragrant aromatic bark. The *mawnd* is 50 feet high, bears numerous crimson flowers, and a nut in shape resembling the nutmeg; and yields a yellowish gum, an ingredient in the celebrated *Indian pigment*. The *launa* is 50 feet high, and bears white flowers, and a green oval fruit of the size of a lemon; the juice of which, after a little exposure to the air, changes from a whitish color to a beautiful deep bluish purple. With this the Indians paint their skins; and the figures for 8 or 9 days, are perfectly indelible, and then disappear. The rogues of the country have devised an ink of it, which, in the same space of time, becomes absolutely invisible. The roots of the *red mangrove* unite, and form the trunk 2 or 3 yards above the ground. The tree is lofty, and grows near running streams. From the trunk and branches numerous ligneous shoots germinate, and descending take root, and increase in size, strength, and solidity, forming a circular, natural arbor around the body of the tree. The *white mangrove* grows at a distance from the water.

The *cassia fistula* is between 40 and 50 feet high, and bears dark

brown cylindric pods, 18 inches long. The *tetermer* is near 50 feet high, and 8 or 9 round. Its wood resembles mahogany. The *caraba* is 40 feet high, and bears a nut yielding a bitter butyraceous oil, with which the Indians rub their skins, as a defence against musquitoes. The *savory tree* consists of many branches, growing about 40 feet high. The fruit is about 15 inches in circumference, and contains two large, reddish, brown nuts, the meat of which, in flavor, surpasses any nut hitherto discovered. The *ducollabolla* is 40 feet high, and 20 inches round. The wood is superior to mahogany in color, texture, and hardness, and admits a more elegant polish. The *simaruba* is 40 feet high, and is peculiar to Guiana. Its bark is balsamic and astringent, and is an excellent stomachic. The *wallabah* is 40 feet high and 2 over. Its wood is remarkably elegant, but splits easily. Its bark is a powerful emetic. The *American nutmeg* grows far in the interior. The nut is of the size of an apple, of a warm and spicy taste, a remedy for diarrheas, and similar in texture to the nutmeg of the east.

The *gumanime* is the product of a tree 40 feet in height, and is of a yellowish color, and a pleasant smell and taste. The balsam *arracocerra* is yielded by a tree 30 feet high, is of an elegant yellow, and speedily digests wounds and other sores. The balsam *capivi* and *canella alba*, or *winter's bark* are well known articles of commerce. The genuine *camphor tree* of Borneo is a native of Guiana. The *bourracourra* or *letter wood*, is the heart of a tree 30 feet high, and 16 inches over. The heart is only 12 inches in circumference, is of great weight, hardness, and solidity, having a fine even grain, of a beautiful deep, reddish color, every where variegated with black spots and figures, which have been tortured into *letters*. Its polish reflects a lustre like that of a mirror, and far superior to any other ligneous substance.

Ebony, *fustic*, and *Spanish cedar* abound near the rivers, as well as many other kinds of valuable timber. The *ducolla* apple tree grows 30 feet high. The pulp of the apple is delicious and tastes like quince marmelade. The woods every where abound with fine wild fruits. The *samec* is 25 feet high. The inner bark resembles hemp. Of it the Indians form their cordage, and ordinary hammocs. The *hearree* grows on the banks of rivers 25 feet high, and kills all the vegetation in its neighborhood. Its smoke is fatal to all animals. The *caruna* is the nut of a shrub having small oval, light green leaves. Within the shell is an oily kernel, a slow but most fatal poison. The *nibbee* is the *bejuco* of New-Granada. The *vanilla* is the fruit of a woody, siliquose vine. The *troolie* is the largest leaf known. From a cluster of small, fibrous roots ten or a dozen stems put forth, at first 3 inches round and gradually tapering till they become the middle rib of the leaf. Each leaf is from 20 to 30 feet long and from 2 to 3 broad. In the centre of these stems arises a short pistil, bearing a great number of large, globular nuts, resembling a hand granade, and sufficiently hard and heavy to serve as a substitute.

The *muccomucco* is a jointed reed 8 or 10 feet high; its leaves are singularly drawing, and resolve the most powerful inflamma-

tions. The *htarree* is a shrub 6 feet high; its root is 8 or 10 feet long, 3 inches round, straight, and continuing of almost equal magnitude to the end; it is of a tough, fibrous texture, and resembles the fresh dug roots of the liquorice. The *Accawaus* cut them in pieces, of two feet in length, and sell them to the whites. One of these pieces bruised, and thrown into a river at high or low water, is sufficient to inebriate all the fish within a considerable distance, so that in a few minutes they float motionless on the top o the water. Almost all the fish eaten in Guiana are taken in this manner. The *currawattie* is a plant, consisting of a cluster of reddish, herbaceous stalks, 4 or 5 feet long, in the centre of which grows a tough, fibrous stem, 2 feet high. This stem bears a number of fruits of the size of a walnut, each of which is composed of a compact angular cluster of aromatic seeds, resembling in smell and taste the grains of Paradise. The tegument, which envelops them, is replete with a bright reddish purple juice, somewhat astringent, and used for ophthalmies. As an ink, it turns to a beautiful blackish blue, which remains unchangeable, and is a most elegant dye for linen or cotton. The *white ipecacuanha* is the root of a plant 3 feet high, bearing yellow blossoms. White *rattans* and *bamboos* grow in clusters on the banks of the rivers.

Zoology. The horse, the ass, and the mule run wild in the savannahs, and are numerous. Neither they nor the zebra are natural to Guiana. Horned cattle also have been transplanted, and are very abundant. They improve in size, but are less delicate in taste. The wool of the sheep changes to hair. The goat is a native, is a little larger than a European kid, and very prolific. There are two kinds of deer: the *baieu*, as large as a buck; and the *wirrebocerra*, one third less, and without horns. There are two kinds of hogs, neither indigenous: the *picary*, smaller than the European hog, and going in large droves; and the *warree*, much larger, going also in droves, and yielding the most delicate pork that is known. A small species of *hippopotamus* is taken in the Essequebo, weighing about 1200 weight. The *laubba* is an amphibious animal of the size of a small pig, with chesnut colored hair. Its flesh is remarkably delicate. Animals of the ape kind are extremely numerous.

The *orang outang* of Guiana is 5 feet high, has short black hair, and is very strong and ferocious. The *ape*, here called *guato*, has a body 4 feet long, covered with long black hair, a bold face, and goes either on four or two feet. The *howling baboon* is of the size of a fox, and has shining black hair. Hundreds of them assemble in the woods, and set up an incessant, loud, and disagreeable howling. The *howling monkey* is larger, has red hair, and a still more hideous yell. The *saccawinkee* is the smallest of the ape tribe, and has a body 6 inches long, and a tail 9 inches. The Guiana *tiger* is nearly of the size of the African, and very daring and ravenous. The *tiger cat* is of a beautiful chesnut, spotted with black, and a third larger than the domestic cat. The *lynx* is twice as large as the preceding, and of the same color: both are fierce and rapacious. The Guiana dog is a species between the hound and the land spaniel. The *badger* is 18 inches long,

and of a dark chesnut. The *paccarara* is a species between the hare and the rabbit, in size, color, and shape resembling the former. The porcupine is not very common. The squirrel resembles the common English squirrel. Rats are very large and numerous. The Guiana *hedgehog* is a peculiar species, 8 inches long, with ash colored prickles. The *armadillo*, or *tatus*, is 3 feet long, and the largest of the species. Bats are of twice the common size, and are very expert at bleeding. The sloth is of the size of a fox. There are three kinds of frogs; the brown, spotted with white; the reddish ash, streaked with red; and the yellow, shaded with red. The *pipa* is a large, venomous toad, the young of which are bred in the back of the male, where the female deposites the eggs. The alligator is of a dark brown or black and near 20 feet long. The *iguana* is the *guana* of New-Granada. Here is likewise the Mexican camelcon, remarkable for the change and beauty of its colors; and there is also a great variety of lizards.

Among the birds of Guiana are the dusky grey vulture; the Surinam falcon; the Brasilian owl; the red, and the black and white butcher bird; the blue and yellow, the red and blue, and the red and yellow mackaw; parrots of many varieties, particularly the *acushe*, the blue headed, yellow headed, green, great green, Brasilian green, and lesser green, and the cockatoo; the green, red headed, brown throated, long tailed green, lory, and short tailed yellowish green parroquet; the toucan; the red headed woodpecker; the alcedo, or swallow tailed king fisher; the certha; humming birds of many varieties and extremely numerous, particularly the black, black and blue, green and crimson, little brown, longtailed black capped, black bellied, the common or golden backed, and the green straight billed; the wild duck; teal; spoon bill; *platalea*; heron; red curlew; spotted plover; spur winged water hen; peacock pheasant; native dung hill fowl, smaller than the European; marradee; hannaquaw; partridge; spotted turtle dove; mocking bird; rice bird; lesser black bulfinch; grey *loxia*; bluefinch; yellowfinch; greater bulfinch; *kishee kishee*, exceeding all the feathered tribe in the lustre and variety of its colors; red and blue Brasilian finch; green and American sparrows; red bellied bluebird; green black capped fly catcher; and black *parus*. The birds of Guiana excel rather in the beauty of their plumage, than in the sweetness of their notes. Their flesh is inferior to that of the same species in colder latitudes.

The fish on the coast are less delicate than those which live in the rivers; this is owing to the muddy water, which extends 30 or 40 miles from the shore all along the coast. The largest of these, the *lowlow*, is 6 feet long, 3 in circumference, and of a bluish, silver color. The *barroketa*, the largest fresh water fish, is 3 feet long and 2 in circumference. Its flesh is white, very fat and delicate. The *peri* is 18 inches long and 3 broad, and is so voracious, as to amputate the feet of ducks, and the smaller limbs of various animals, that occasionally frequent the water. Saw fish, flounders, sole, mackerel, drummers, old wifes, mullets, anchovies, and shrimps, are found along the coast, and in the rivers. The *turtu-*

rific eel is 3 feet long, and 1 in circumference, and has a smooth skin, of a bluish, lead color. It comes to the top of the water to respire every 4 or 5 minutes. When touched by the naked hand, or by a metallic rod, or a stick of some of the heavy species of wood, it communicates a most powerful electric shock.

The immense number and variety of the snakes of Guiana constitute one of the principal inconveniences of the country. The largest ever caught here was 33 feet some inches long and 3 feet round. It had a small deer in its belly. The name of the species is not mentioned by Bancroft, but its bite is not venomous. The *commodee* is amphibious, 15 feet long, and 1½ round. The *scarlet snake* is 5 feet long, and as large as a man's thumb, amphibious, and extremely venomous. The *fire snake* is 4 feet long, and as large as a man's finger. Its bite is fatal. The *wood's master* is 3 feet long, and 5 inches round, and has a poisonous bite. The *maccourracourra* is 3 feet long, less than one's finger, very beautiful and venomous. The *whip snake* is 6 feet long, and a little larger than a pipe's tail. The *carunna* is 2½ feet long and slender. In the rainy season they come into houses, and are often found under tables and chairs and in beds. Their bite is said to be fatal. The *ibonuna* is of equal length, and 2 inches round. Its bite is fatal. There are 3 species of *amphisbænæ* or double headed snakes. The great *laborra* is 3½ feet long, and 4 inches round; the small 14 inches long, and as large as the barrel of a swan's quill. The poison of both is more deadly than any other.

The multitude and variety of insects is incredible. Among these are numerous beetles; the cockroach; butterflies, without number; the bee; numerous ants; the flying ant; wood lice; 2 sorts of fire flies; numerous varieties of the gnat, musquitoe, catterpillar, and spider; the palmer worm; Surinam scorpion; centipes; and the chigger, the *nigua* of New-Granada.

VICEROYALTY OF PERU.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. HISTORY. ANTIQUITIES. RELIGION. GOVERNMENT. POPULATION. MANNERS AND CUSTOMS. CITIES AND TOWNS. REVENUE. MANUFACTURES AND COMMERCE.

Extent. PERU extends, on the coast, from the Tumbez, in lat. 3 25 S. to port de Loa, in lat. 21 30 S. In the interior its treaty limit is the celebrated line of demarcation, although the Spaniards have no settlements, except *missions*, beyond the eastern cordillera of the Andes. Its length, from N. to S. is 1260 miles. The eastern cordillera is from 240 to 300 miles from the western coast. In

the interior the Amazon may be considered as its northern limit; while, in the S. the district of Lampa, the most northern in the viceroyalty of Buenos Ayres, lies N. of lake Titicaca, and commences only 30 geographical leagues S. of Cusco.

Boundaries. On the N. lies the viceroyalty of New-Granada; on the E. Brazil; on the S. E. and S. the viceroyalty of Buenos Ayres, which reaches westward to the Pacific; and, on the W. the Pacific.

Divisions. Peru was formerly divided into 5 dioceses, or circuits, which were subdivided into numerous jurisdictions. The following table commences on the N. W.

I. *Truxillo.*

1. Piura
2. Sana
3. Truxillo
4. Chacapoyas
5. Caxamarcas
6. Llulla and Chiloas
7. Caxamarquilla or Pataz

II. *Lima.*

8. Santa
9. Guamalies
10. Chancay
11. Guaylas
12. Caxatambo
13. Conchucos
14. Tarma
15. Guanuco
16. Canta
17. Lima
18. Guarachia
19. Jouxa
20. Canete
21. Yauyos
22. Ica, Pisco and Nasca

III. *Guamanga.*

23. Guanca Velica
24. Angaraes
25. Guanta
26. Guamanga
27. Castro Vireyna
28. Andaguaylas
29. Vileas Guaman
30. Parima Cocha
31. Lucanas

IV. *Cusco.*

32. Avancay
33. Colcaylares
34. Cusco
35. Paucartambo
36. Quispichanchi
37. Chilques and Masques
38. Cotabamba
39. Canas and Canches or Tinta
40. Aymaraes
41. Chumbi Vilcas
42. Apolo-bamba

V. *Arequipa.*

43. Condesuyos de Arequipa
44. Camana
45. Arequipa
46. Caylloma
47. Arica
48. Monquegua

Since that period the whole country has been divided into the following 8 intendencies, arranged in the same manner:

Truxillo	Guamanga
Tarma	Guantajaya
Lima	Cusco
Guanca Velica	Arequipa

History. Little is known of the history of Peru before the dynasty of the Incas. In this the native historians enumerated 15 reigns, previous to the conquest by Pizarro. The incas and their nobles are thought to have been a distinct race from the body of the nation. The following is a list of the Incas furnished by the Spanish historians: 1. *Manco*, the founder of the dynasty. He made Cusco the seat of his empire; and built there the temple, and established the

worship of the sun; pretending that himself and his sister Oello, whom he had married, were the children of that divinity. 2. *Sinchi-Roca*, son of the former. 3. *Lloque-Uſanqui*, a distinguished conqueror. 4. *Maita-Capac*. 5. *Capac-Uſanqui*. 6. *Inca-Roca*. 7. *Yahuar-Huacac*. 8. *Riſiac*, also a distinguished conqueror. 9. *Urco*, who reigned only 11 days. 10. *Pachacutec*. 11. *Yuſanqui*, who carried his arms to the Maule, in Chili. 12. *Tuſiac-Yuſanqui*. 13. *Huayna-Capac*, who subdued the kingdom of Quito. 14. *Inti-Cusi-Hualſa*, who was beheaded by his brother and successor. 15. *Atahualſa*, who was inca when Pizarro invaded Peru. He met the fate of his predecessor. 16. *Manco-Capac*, who reigned by permission of the conqueror, and died in 1533. 17. *Sayri-Tupac*, the last of the incas, who resigned his crown to Philip II.

Pizarro, in 1532, founded a colony at St. Michael, near the mouth of the Piura. At Caxamalca he treacherously siezed the person of Atahualpa, whom he suffered to ransom himself, by an immense quantity of gold, and then put him to death in 1533. He took Cusco the same year. Peru was created a viceroyalty, and a royal audience was established at Lima, in March, 1543. At first the viceroy had the superintendence of New-Granada, including Quito, of Chili, and of Buenos Ayres.

We have no authentic documents to enable us to bring down the history of Peru to the present time.

Antiquities. The famous statues and obelisk of *Tiahuanuco*, near the confines of La Pas, and the mausolea of Chahapoyas, are honorable proofs of the skill in sculpture possessed by the Peruvians; as are the ruins of Pachacamac, the edifices of Cusco and Quito, the fortresses of Harbay and Caxahuana, and the roads cut through the Cordilleras, of their skill and acquaintance with civil and military architecture. The mines which they opened in the mountains Escamora, Chilleo, and Abitanis, for gold; in Choquipina, and Pozco, for silver; in Curahuara, for copper; and in Carabuco, for lead; still attest their knowledge of metallurgy. In Lucanas, Condesuyos, and many other places, are ruins of noble aqueducts, some of which would have been thought works of difficulty in civilized nations. In their sepulchres were deposited their paintings, manufactures, vessels of gold, and silver implements of war, husbandry, and fishing. A few of these remain. Several pillars are now standing, which were erected to point out the equinoxes and solstices.

Religion. Peru constitutes a single archbishopric. It is divided into 5 dioceses; that of Lima under the archbishop; and those of Truxillo, Guamangua, Cusco, and Arequipa under their respective bishops. These dioceses are coextensive with the same name. Beside the chapters of these dioceses there are 557 curacies in the royal gift.

Government. The government is vested in a viceroy and a royal audience. The viceroy is appointed for three years; but the king may prolong his tenure of office. He enjoys all the privileges of royalty, and is absolute in all affairs, civil, criminal, fiscal, political, and military. He has a body guard of 160 horse and 50

halberdiers, and a guard within the palace of 100. The audience consists of the viceroy, who is president, a regent, 8 oiders *(auditors)* or judges, 4 alcalds of the court, and 2 fiscals. The audience is always held in the viceroy's palace, in the three saloons appropriated to it. In one it holds deliberations, and the viceroy presides. In a second it sits as a court, and hears civil causes *privately*; and in a third, *publicly*: the senior oidor presiding in both. A criminal court sits in a fourth saloon, consisting of the four alcaldes, and a criminal fiscal. Next to the audience is the chamber of accounts, consisting of a commissioner, 5 chief accountants, 2 receivers, and 2 directors, who regulate the distribution of the revenue. The junta of the treasury consists of the viceroy, the regent of the audience, a treasurer, and other officers.

Population. From a census recently taken, Peru contains 1,079,122 persons of all sexes, conditions, and denominations. The number of towns and villages is computed at 1460.*

Manners and Customs. The inhabitants here, as in the other Spanish colonies, consist of whites, Indians, and negroes; and the various casts arising from the intermixture of these three. Less distinction is observed here in the dress of the different classes, than in New-Granada. That of the men is the proper Spanish dress, and every one, whether white, Indian, or negro, wears what he can purchase. The common dress of the women consists of a petticoat of dimity, an open petticoat, a shift, and a jacket. The shoes are fastened with diamond buckles, are *extremely* small, and cramp the foot. The dimity petticoat reaches to the calf of the leg; a border of their transparent lace sewed to the bottom of it reaches to the ancle. Through this the ends of the garters are seen embroidered with pearls. The upper petticoat is of velvet or some rich stuff, open in front, and crowded with ornaments. The shift sleeves are a yard and a half long, and two yards wide, and covered with rolls of lace. It is contrived in such a manner, as but partially to conceal the person, which is exposed of design. In the large towns, some of the noble families keep their coaches; but most content themselves with calaches, or chaises. Commerce is not here considered as disgraceful, and is the common employment of the most wealthy families. Many of the whites also engage in the mechanic arts; interest here preponderating over every other consideration. The inhabitants are generally hospitable to strangers. They are naturally gay and lively in their tempers, clear, and discriminating in their understanding Many of them, even of the females, are well informed. The love of gain and magnificence, appears to be the predominating passions. These, however, do not prevent a great licentiousness, which pervades all ranks and classes. This is followed by a very general prevalence of *syphilis*; a disease hereditary in most families, and so common as not to be attended, in either sex, with the least disgrace. Multitudes have it during the whole of their lives.

Cities and Towns. LIMA was founded by Pizarro in 1535. It is situated in the centre of the spacious and delightful valley of *Rimac*, an Indian word out of which the Spaniards have made Lima. The river Rimac flows on the N. side of the city, separating it from the suburb of St. Lazarus. This river is fordable, except in the rainy season, when it becomes a torrent. A noble stone bridge is thrown over it, having a beautiful gate at the S. end, opening through the wall of the city. The form of the city is nearly triangular, the base extending along the river. Its length, from E. to W. is 4100 yards, and the greatest breadth 2307. The wall is of brick, and is flanked with 34 bastions, without platform or embrasures. It has 7 gates and 3 posterns, and was designed chiefly as a defence against the Indians. The streets are paved. Along them run streams of water conducted from the river a little above the city. They are broad, and cross each other at right angles, forming squares of 150 yards to a side. The houses are generally low, but commodious and handsome, and are covered with lime, painted in imitation of freestone; the earthquakes rendering more compact materials dangerous. Most of the houses have fruit gardens; and many fruit and kitchen gardens are found in the east and west part of the city. The town is divided into five parishes, and contains 23 monasteries, 14 nunneries, 16 hospitals, 4 colleges, and numerous public schools. In the centre of the great square is a spacious and superb fountain of exquisite architecture. According to the Peruvian Mercury, Lima contained, in 1600, 14,262 inhabitants; in 1614, 25,455; in 1700, 37,259; and in 1790, 52,627. Of this last number 47,796 were secular persons of all descriptions; viz. 17215 whites; 3912 Indians; 4631 mestizos; 8960 negroes; 5972 mulattoes; 2383 quarterons; 219 quinterons; 3384 sambos; and 1120 chinos. The number of religious persons was 4831; of whom 2555 were males, and 2276 females. The market of Lima is admirably supplied. Its commerce is very extensive. Callao, its port 2½ leagues W. from Lima, was formerly a town of some size, but at present is merely a road, with a few warehouses.

Cusco was the ancient seat of the monarchy, and was founded by the first inca, Manco Capac. It stands in an uneven situation, and has mountains close to it on the N. and W. The ruins of the famous fort, built by the incas, is on the mountain on the N. Most of the houses are of stone, well contrived, and covered with tiles of a lively red color. It contains 9 churches, and numerous convents. The cathedral is of stone, and admirably built. The population is estimated at 26,000. The Guatanay, a small river, runs by the town. The site of the city is nearly as large as that of Lima.

AREQUIPA was founded by Pizarro, in 1539. It stands in the valley of Quilca, in the southern part of Peru, about 20 leagues from the sea; and in point of population, is the second city of Peru. The houses are well built of stone, and vaulted, generally lofty, commodious, finely decorated without, and neatly furnished within. The streets are kept very clean, by means of canals which communicate with *(the Chile)* a river in the neighborhood. The population, in 1785, was estimated at 30,000. Aranta is its seaport.

TRUXILLO is in lat. 8 6 3 S. It was built by Pizarro, in 1535 in the valley of Chimo, and is half a league from the sea. The houses are generally of brick, and of a decent appearance, but only of one story. The population is about 9000. Guanchaco, 2 leagues N. is its port.

GUAMANGA was founded by Pizarro, in 1539, and lies between Lima and Cusco. It stands on the declivities of some mountains, which, extending southward, inclose a spacious plain eastward of the town. The houses are chiefly of stone, and the city, including the suburbs, is quite extensive.

CAXAMARCA is nearly in the latitude of Truxillo, and on the eastern cordillera. It is extensive and handsome. The population is about 12,000; many of them are Indians, who are very ingenious in the manufacture of cottons, particularly tapestry. The elevation of the town above the sea is 9370 feet.

LAMBAYEQUE lies on a small river of the same name, N. of Truxillo, and about 2 leagues from the sea. It contains about 1500 houses, chiefly of cane plastered over, and 8000 inhabitants. The parish church is built of stone, large and splendid.

ICA stands on the Ica, not far from the sea, and contains about 6000 inhabitants. It exports glass, wine, and brandy.

Revenue. The chief source of revenue is the coinage at Lima. Estella supposes that the royal treasury receives more than 4,500,000 dollars annually. For further light on this topic see articles *Commerce* and *Mineralogy*.

Manufactures and Commerce. The foreign trade of Peru is carried on directly with the viceroyalty of Buenos Ayres, with Chili, Guatemala, and Santa Fe. That with Buenos Ayres is almost wholly by land, from the intendencies of Arequipa and Cusco in the S. through the cities Potosi and Chuquisaca. From Arequipa are sent brandies, wines, maize, wheat flour, cotton, oil, pimento, and sugars, amounting, in 1789, to $1,300,475; and from Cusco, baizes and other woollen manufactures, maize, flour, sugar, &c. amounting, in the same year, to $735,505: for which the former received in return cattle, dried fish, wool, tallow, cacao, copper, tin, &c. to the amount of $389,260; and the latter mules, sheep, black cattle, hides, wax, soap, and tallow to the amount of $475,530. The most important mining province in Buenos Ayres, *La Lierra*, is populous and yet sterile, and receives almost all its supplies of provisions and clothing from Cusco and Arequipa. It returns the precious metals, and this occasions the great balance of trade in their favor.

The commerce with the other provinces is maritime, and is carried on from Callao, the port of Lima. There were belonging to that port, in 1789,

			tons.
8 galleons of from	1800 to 750 tons	in all	8,350
11 merchant frigates	650 to 300	in all	5,000
14 packet boats	400 to 125	in all	3,025
33			16,375

The commerce with Chili is carried on with the ports Coquimbo, Valparairo, and Conception. The exports consist of cloth, sugars, salt, and rice; and, in 1789, amounted to $458,317; the imports, of the same year, amounted to $629,800, consisting of wheat and other grains, tallow, copper, hides, cordage, &c. Of these the wheat, imported in that year, amounted to 218,000 bushels, of the value of $275,000.

The island of Chiloe, in the archipelago of the same name, is annexed to the viceroyalty of Peru. The exports from it, in 1789, amounted to 30,000 piastres and the imports to 51,200.

The maritime commerce with New-Granada is carried on through the ports of Guayaquil and Panama, and the inland through the province of Quito. The exports, in 1789, amounted to $128,295, consisting of wines, brandies, sugars, flour, and copper, shipped to Guayaquil; of cloth, wool, and flour to Panama; and of cotton, tanned hides, shoes, hats, baizes, and sugars, sent over land. The imports from New-Granada consisted of cacao, coffee, wax, &c. amounting, in that year, to $284,460.

The commerce with Guatemala is carried on through the ports Realexo and Sonsonate, both in the southern part of that captain-generalship. The exports, consisting of furs, wines, brandies, oil, &c. amounted, in 1789, only to 28,350 piastres; but the imports, consisting of indigo, pimento, pitch, cedar planks, brazil wood, &c. to 124,500.

The following abstract of the preceding statement will exhibit, at one view, the state of the Peruvian commerce, in 1789:

	Provincial exports.	Imports.	Balance.
Buenos Ayres	2,034,980	864,790	+1,170,190
Chili	458,317	629,800	—171,483
New-Granada	128,295	284,460	—156,165
Guatemela	28,350	124,500	—96,150
	2,649,942	1,903,550	+746,392
Island of Chiloe	30,000	51,200	—21,200
	2,679,942	1,954,750	+725,192

The commerce with Spain was carried on through the ports of the gulf of Mexico, till October, 1778. At that time a free trade was permitted between the ports of Cadiz and Callao. The following is the state of the commerce between those two ports for 5 years:

Exports.

	Gold and silver.	Other prod.	Price at Lima.	Price at Cadiz.
1785	7,144,325–2$\frac{1}{8}$	733,587–4	7,877,912–6$\frac{1}{8}$	8,823,115–6$\frac{1}{8}$
1786	8,285,659–7$\frac{6}{8}$	882,807–1	9,168,467–0$\frac{6}{8}$	10,369,502–5$\frac{4}{8}$
1787	4,518,246–3$\frac{4}{8}$	906,022	5,424,268–3$\frac{4}{8}$	6,503,961–2$\frac{4}{8}$
1788	5,463,973–1$\frac{2}{8}$	579,160–2	6,043,133–3$\frac{2}{8}$	6,798,374–0$\frac{2}{8}$
1789	2,449,495–6$\frac{2}{8}$	523,080	2,972,575–6$\frac{2}{8}$	3,484,386–2$\frac{2}{8}$
Total	27,861,700–4$\frac{7}{8}$	3,624,656–7	31,486,357–3$\frac{7}{8}$	35,979,399–6$\frac{7}{8}$

Imports.

	Spanish prod.	Foreign prod.	Price at Cadiz.	Price at Lima.
1785	1,932,040-0$\frac{7}{8}$	3,106,056-2$\frac{6}{8}$	5,038,096-3$\frac{5}{8}$	6,965,231-3$\frac{6}{8}$
1786	5,113,389-5$\frac{1}{8}$	6,358,901-5	11,472,221-2$\frac{1}{8}$	14,734,084-4$\frac{4}{8}$
1787	3,225,167-3$\frac{6}{8}$	2,426,581-6$\frac{2}{8}$	5,651,749-2	7,257,741-6$\frac{6}{8}$
1788	1,298,250-7$\frac{4}{8}$	995,055-6$\frac{3}{8}$	2,293,306,5$\frac{7}{8}$	2,940,992-7$\frac{6}{8}$
1789	1,007,663-7$\frac{1}{8}$	1,216,855-3$\frac{1}{8}$	2,224,517-2$\frac{2}{8}$	2,856,965-0$\frac{7}{8}$
Invoiced prices	12,576,510-0$\frac{3}{8}$	14,103,450-7$\frac{4}{8}$	26,679,960-7$\frac{7}{8}$	34,755,015-7$\frac{5}{8}$
Add 22 per cent.	2,727,064-1	2,990,428-5	5,717,492-6	7,344,297-7
	15,303,574-1$\frac{3}{8}$	17,093,879-4$\frac{4}{8}$	32,397,453-5$\frac{7}{8}$	42,099,313-6$\frac{5}{8}$

The 22 per cent. is added on account of the superior value of silver at Cadiz.

Hence it appears that the trade of Peru, in the year 1789, at the invoiced prices, was as follows:

	Exports.	Imports.
With Spain	2,972,575-6$\frac{2}{8}$	2,224,517-2$\frac{2}{8}$
With the colonies	2,649,942	1,954,750
	5,622,517-6$\frac{2}{8}$	4,179,267-2$\frac{2}{8}$

The excess of imports and exports, in the year 1785 and 1786, was owing to the trade having been shut up by the previous war. Merchandize to the amount of more than 21 millions of dollars, according to the Lima prices, was shipped in those two years at Cadiz for Lima, and 7 millions the year after. This was much more than the annual consumption of the country, and occasioned the great deficit in the two following years. Probably the most fair estimate that we can make would be to add the average amount of the exports and imports to and from Spain, for 5 years, to the exports and imports to and from the colonies in 1789. This gives us the following results:

	Exports.	Imports.
With Spain, average of 5 years	$7,195,880	$8,419,862
With the colonies in 1789	2,649,942	1,954,750
	9,845,822	10,374,612

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. RIVERS. BOTANY. ZOOLOGY. MINERALOGY.

Climate and Seasons. THE climate of the various places in Peru depends much on their situation. The highest Andes are perpetually covered with snow; and experience an uninterrupted winter between the tropics. The lower mountains have usually the

same covering in the cold season; while the hills enjoy a never failing spring. The elevated plain between the two cordilleras, called by Humboldt the high table land of Peru, has scarcely any variation of temperature throughout the year; the mercury of Fahrenheit always standing at about 65° or 66°. The country is here perpetually verdant, and the grains, the vegetables, and the fine fruits of Europe find here a genial climate, amidst those of the torrid zone. The only distinction of seasons arises from the rains which prevail from November to May. In the country of *Valles*, or the plain between the western cordillera and the Pacific, the climate is materially different. The chief division of seasons is here into winter and summer. The winter begins with July and lasts till the end of November. It is seriously colder than the rest of the year. The month preceding it is commonly called autumn, and the month following spring; denoting merely the short period in which the two principal seasons are partially blended; before the one loses, and the other gains, its acknowledged characteristics. Rain is never known in any part of this region throughout the year; but, in the winter, the earth is covered with so thick a fog as totally to intercept the rays of the sun. In some places the fog is so far dispersed between noon and evening, that the sun may be seen, and his warmth felt for several hours; but others are constantly darkened. In that season of the day, however, the vapor every where dissolves into a very small mist or dew, called *garua*, and moistens the earth equably; rendering the most arid and barren grounds fertile, covering the fields with flowers of the most beautiful colors, clothing them with the richest verdure. It never falls in sufficient quantities to injure the roads or incommode the traveller, but lays the dust in the streets of the cities and towns, which throughout this region are universally sandy. The only winds prevailing here are the S. S. S. E. and S. E. The S. S. E. is the most common, particularly in winter. At that season these winds begin to blow stronger, and bring the cold with them from the more wintry regions of the S. They are so keen, that light dresses are laid by, and cloth or other warm stuffs worn. The constant absence of the rays of the sun likewise contributes to this effect. During summer the sun's rays occasion a prodigious heat throughout all this region; the more so as they are received upon a sandy soil, whence they are strongly reverberated. Thunder and lightning are here absolutely unknown, though common on the mountains at the eastern limit of this region.

The country of Valles is far from being healthy. Malignant intermittent and catarrhal fevers, pleurisies, and constipations are the most common diseases, and rage constantly at Lima. The smallpox, though not annual, has heretofore been frequent in its visitations; and has always swept off great numbers of the inhabitants. Convulsions are likewise very common, and no less fatal in all this district. Hectic fevers prevail greatly, and are here contagious. The prevalence of syphilis has been mentioned. It is slower and less malignant in its effects here than in colder latitudes.

Face of the Country. A hint has been given of this in the preceding article. The country of Valles is a narrow plain of from 10 to 20 marine leagues, or from 35 to 70 miles in width; extending from the coast to the western cordillera. Between the river Tumbez and Lima, this plain is chiefly a barren, sandy desert, in which, however, the fertilizing influence of the *garuas* calls forth in many places a thrifty vegetation, which continues through December and the early part of summer, but is soon parched by the drought. Immediately E. of this, is the lower or western chain of the Andes, reaching the whole length of Peru; not in one unbroken elevation, like the cordillera of Mexico, but composed of successive summits of immense height, between which the eastern inhabitants find a laborious passage to the country of Valles. East of the western cordillera lies a high valley, or elevated table land, generally from 8000 to 10,000 feet above the level of the ocean. The width of this valley varies materially in different places; Ulloa says, however, that is often from 30 to 50 leagues, or from 105 to 175 miles. The eastern cordillera is the chine of the continent. It consists also of separate summits, but less broken than the western, and has an average height of 15,000 feet.

Rivers. Three of the sources of the Amazon rise in Peru, the Tunguragua, the Guallaga, and the Apurimac.

The Tunguragua is the river already described under the article *America*,* as the genuine source of the Amazon. Our account of it there is taken from Ulloa. In the Peruvian Mercury, of 1791, copied into Skinner's account of Peru, we find that it rises not in lat. 11°, but in 10 14 S. from the lake of Lauricocha, in the plains of Bombon, a lake a league in length and half a league in breadth. As it issues from the lake it is 25 yards wide and of a proportionate depth. Its progress is correctly described under the article before referred to.

The Guallaga, or Huallaga, issues from lake Chiquiacaba, under the name of Guanuco, in lat. 10 57 S. At first it flows precipitately to the N. as far as lat. 10 3 S.; where it turns eastward, and, passing a little to the S. of Leon de Guanuco, preserves the same direction to the town of Muna, at the entrance of the mountainous country in lat. 9 55 S. Here it bends impetuously to the N. between two high and rugged mountains, flows over several dreadful precipices, and in lat. 9 22 S. receives from the W. the Monzon. The River of the Moon joins it from the E. in lat. 8 40 S. whence continuing its northern course, it takes a new bend, at the town of Valle, in lat. 7 50; below which it forms two difficult passes, named Sabaloyaco and Cachahuanuca. The Huayabamba flows into it from the W. in lat. 7 33 S. half a mile broad; below which it takes the name of Guallaga, and in lat. 7 10 S. receives on the same side, the Moyobamba of equal size. Some distance below, it leaves the mountainous country, receives the Chipurana, from the E. and thence flows, with a gentler current, through the plains of Los Maynas. Just before its junction with the Tunguragua, in lat. 5 4 S.

* Page 121.

it divides into two branches. Its width here is 180 fathoms, and its depth 28 fathoms. The united stream is for some distance half a league broad, and, for about a league, its course is a diagonal of the directions of both, till at length, that of the Tunguragua predominates.

An account of the Apurimac is given under the article *Amazonia.*

Botany. The celebrated quinquina, which yields the Peruvian bark, abounds in the northern provinces. The plants and trees are many of them like those of New-Granada.

Zoology. The *llama* and the *vicuna* are the most important of the Peruvian animals. No venomous serpents are found in the country of Valles.

Mineralogy. The following enumeration of the mines of Peru is given by Skinner, as extracted from the Peruvian Mercury of 1791:

Intendency.	Wrought.					Abandoned.	
	Gold.	Silver.	Mercury.	Copper.	Lead.	Gold.	Silver.
Truxillo	2	134	0	0	0	1	161
Lima	4	131	1	4	0	0	70
Tarma	0	227	0	0	2	0	21
Guanca Velica	1	80	2	0	10	2	215
Guamanga	60	102	1	0	0	3	63
Guantajaya	1	20	0	0	0	19	30
Cusco	0	19	0	0	0	0	0
Arequipa	1	71	0	0	0	4	28
	69	784	4	4	12	29	598

The number of unserviceable silver mines is owing to the fact that many of them, after being opened, have been completely choked by the water, which flows in from the neighboring highlands. During a space of 10 years, from January, 1780, to December, 1789, the above mines yielded 35,359 marks of gold,* 22 carats; and 3,739,763 marks of silver. In 1790 the silver mines yielded 412,117 marks of silver; being an excess of 38,147 marks over the average produce for the preceding 10 years. The product of the Mexican mines appears to be much greater than that of the Peruvian; for, in 1790, that of the gold mines amounted to 5024 marks of gold, and that of the silver to 2,179,455 marks of silver, coined in the royal mint at Mexico: total value of both $18,063,640.

* The mark of gold being estimated at 125 dollars, and the mark of silver at 8, the total amount of the produce of the mines in the above 10 years will be 34,437,979 dollars.

AMAZONIA.

EXTENT. POPULATION. CLIMATE. SOIL AND PRODUCTIONS. RIVERS. BOTANY. ZOOLOGY.

THIS name has been given to a great and indefinite extent of country possessed by numerous independent tribes in the heart of South-America. The line of demarcation, between the Portuguese and Spanish possessions, passes through the heart of the territory, and divides the whole of it between those two nations; Portugal claiming all that lies E. of that line, and Spain all that lies W. of it. According to the treaty of St. Ildefonso therefore, there is no independent territory. But a great number of powerful and warlike tribes of Indians were, at the time, of a different opinion: and, as they were not consulted at the formation of the treaty, there is no immediate prospect that they will recognize its validity.

Extent. It is impossible to assign any exact limits to this territory. On the S. it may, however, be considered as extending to the confines of Paraguay, in about lat. 14° S.; on the W. to the river Ucayale; on the N. to the Amazon; and on the E. to the Tocantin. This country is estimated, vaguely however, at 1400 miles long, by 900 broad.

Population. The Portuguese have some small settlements on the coast between cape North, and the mouth of the Amazon; these excepted, the natives have the sole possession of the country. The natives are of good stature, with agreeable features, long black hair, and copper colored complexion, have a taste for sculpture and painting, and excel in the mechanic arts. They weave and spin cotton cloth. Their houses are of wood and clay, thatched with reeds.

Climate. Though under the torrid zone, the air is temperate, owing partly to the great rains, which occasion the overflowing of the rivers, and the inundation of the country for half the year, and partly to the cloudiness of the weather.

Soil and Productions. The soil is fertile, and produces corn and grain, and all kinds of tropical fruits.

Rivers. The Amazon, the northern boundary, has heretofore been described, as issuing from lake Lauricocha. The river, which issues from that lake, is the most western branch. A dispute has long existed whether that or the Ucayale, was the true source. In the appendix to Skinner's account of Peru, are numerous geographical descriptions of the interior of South-America, extracted from the Peruvian Mercury. As these descriptions are founded on the travels of fathers Sobreviela and Girval, men of high distinction in Peru, they may doubtless be relied on. Had we fallen in with them before the article *America* had been printed, the description of the Amazon would have been somewhat varied. From them we are led to believe that the river issuing from lake Lauricocha, and called the *Tunguragua*, is only a tributary, and not the genuine source of the Amazon.

The *Yucayale* is said, by the editors of the Peruvian Mercury, to have its source under the name of the *Apurimac*, in the wild heaths of Condoroma, in the province of Tinta, in Peru, and in 16° S. latitude. It flows impetuously eastward about 3 leagues, toward the cordillera of Vilcanota, then suddenly turning to the W. separates that cordillera from the province of Chumbivilcas. Entering the provinces of Aimaraes and Cotabambas, it directs its rapid course to the N. W. leaving the province of Cusco to the E. and in Avancay declines to the N. E. and ceases to be fordable. Determining its career to the N. two leagues below the bridge of Apurimac, it breaks through the eastern cordillera, passing between mountains of vast elevation. In lat. 13 10 it receives the *Cocharcas*, or *Pampas*, from the heights of Guanca-Velica, on the W.: in 12 15 the *Vilcomayo* from the E.; and in lat. 12 6 the Jauja, or Indian *Mantaro*, from the W. Here it bends to the N. E.; and, in lat. 11 18 the *Perene* joins it from the same side. In lat. 10 45 it receives the *Paucartambo* from the S. E. and three leagues below, the *Beni*, which rushes with such impetuosity, as to propel the Apurimac towards the mountains, and cause it to change its direction to the N. W. Here the united stream takes the name of the *Apo-Paro*, or *Grand-Paro*, and continuing its impetuous course in the same direction, in lat. 8 26 is augmented by the Pachitea from the S. W. after which, it is called the *Ucayale*. It then turns to the N. E. and continues that direction to its confluence with the *Tunguragua*. In this distance it receives the *Aguatia*, in lat. 7 55; the *Manoa*, or *Cuxhiabatay* in lat. 7; the *Sarayacu* in lat. 6 45; and the *Tapichi y Cano Pocati*, in lat. 5°. Below this it divides into three branches, and at length, forming an extensive bay, unites with the Tunguragua in lat. 4 45 S. Of these two rivers the Ucayale is the longest, the largest, and the farthest navigable. It was never doubted to be the genuine source of the Amazon, say the editors of the Mercury, till 1707; when the map of father Fritz, published at Quito, first gave the name of Maranon, or Amazon to the Tunguragua.

It may not be improper here to remark that the Portuguese give the whole river the name of *Maranon*, as far as its confluence with the Madeira, and thence the name of *Amazon*, to its mouth. Of the two names applied to the river generally, Ulloa speaks of that of *Maranon*, as the most ancient, and of that of *Amazon*, as having long been the most common. An attempt is now making to revive the former name.

The *Vilcomayo* originates in the heights of Vilcanota, in lat. 15 25 S.; watering with a copious stream the valley of Urubamba, it flows into the Apurimac in lat. 12 15.

The *Jauja*, *Jauxa*, or *Mantaro*, issues from lake Chinchaycocha, in the plains of Bombon, a lake 9 leagues long, and 2½ broad, in lat. 11 3 S. Running S. a great distance, it crosses the valley of Jauxa, and winding to the E. is increased by a large stream from the heights of Guanca-Velica. The cordillera for a while turns it to the N. and it thus forms the long peninsula named *Tallacaxa*. It then resumes its eastern direction, and continues it to the Apurimac.

The *Pereue*, a smaller stream, originates within two leagues of Tarma, and dividing that city, is afterwards greatly enlarged before it is lost in the Apurimac.

The *Paucartambo* issues from the cordillera of Vilcanota, in the same parallel with the Apurimac; into the eastern side of which it flows in lat. 10 45 S. It is said to contain a greater quantity of water by one half than the Apurimac.

The river *Beni* rises in the mountains to the E. of the jurisdiction of Cicica, in about lat. 19° S. It runs from S. to N. with some inflections, receiving various rivers from the mountains. The largest of these is the *Coroyco*, from the province of La Pas, on the W. In latitude 13° S. it throws off a branch in an eastern direction, which enters a large lake, named *lake Roguaguado*, having an extension of more than 10 leagues from E. to W. and of 5 from N. to S. From the eastern end of this lake issues an arm, which runs to the Mamore; and from the northern side, 3 rivers, the *Yutay*, the *Tefe*, and the *Coari* run northwardly to the Amazon. The Beni, after losing this branch, pursues a N. W. course, and joins the Apurimac, in lat. 10 38 S. With regard to the Beni, we do not see why it is not to be considered as the genuine source of the Amazon, instead of the Apurimac. If the preceding accounts of both, taken from the Peruvian Mercury, are true, it is several hundred miles the longer of the two, and its force is so much the greater at the confluence, that the united stream is compelled to take its direction to the N. W. instead of the N. E. course of the Apurimac.

The *Pachitea* originates in lat. 10 46 S. near fort Quiparacra. It runs to the E. and afterwards to the N. forming the *Pozuzo*; and then recovering its former direction preserves it till its confluence with the *Mayro*. Again turning northward it receives the *Pitchis*, and falls into the *Gran Paro*, in lat. 8 26 S.

The rivers *Mamore* and *Magdalena* form the *Madeira*. The *Mamore* rises in the district of Misque, in Paraguay, in about lat. 20° S. and receives the *Piray* and the *Guapay* before the confluence. Santa Cruz de la Sierra is on one of its branches. The *Magdalena* rises in Chaco, in Paraguay, nearly in the same latitude, and runs E. of the *Mamore*. It receives, on its right bank, the *Itenas*, or *Ytenas*, a very large river, which is a part of the boundary between the Spanish and Portuguese possessions. The *Mamore* and *Magdalena* both run in a northwesterly course, and unite in about lat. 11° S. The course of the *Madeira*, after the confluence, is N. E.

The *Topayos* and the *Zingu* are both large tributaries of the Amazon on the same side, below the Madeira; but we have seen no particular account of them.

Botany. Cedar, Brazil wood, oak, ebony, iron wood, log wood, and other dying woods abound in this country; also cocoa, tobacco, sugar canes, cotton, cassava root, potatoes, pine apples, guavas, yams, sarsaparilla, gums, raisins, balsams, of various sorts, bananas, &c.

Zoology. The forests abound with tigers, wild boars, buffaloes.

deer, parrots, and game of various kinds. Wild honey is plenty. The lakes and rivers have abundance of fish, sea cows, and turtles.

BRAZIL.

INCLUDING PORTUGUESE GUIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAME. HISTORY. RELIGION. GOVERNMENT. POPULATION. ARMY, NAVY, REVENUE. MANNERS AND CUSTOMS. LITERATURE. CITIES AND TOWNS. COMMERCE.

Extent. THE Portuguese possessions in South-America extend from the mouth of the Arowary, or Aracuari, in lat. 1 30 N. along the eastern coast, as far as lat. 33 3 S. about 60 miles beyond the mouth of Rio Grande; the tract of land between this parallel and the mouth of the little river Chuy being neutral territory, claimed neither by Spain nor Portugal. According to the *line of demarcation*, heretofore recited, the western mouth of the Yupura is the boundary of the Portuguese possessions, on the N. side of the Amazon; while on the S. side of that river they extend nearly two thirds across the continent. We are unable to point out the exact western limit on the S. side of the Amazon; but it must be at least as far as the mouth of the Tefi, which falls into the Amazon, on the S. from lake Rogagado, in lon. 64° W.; for the Portuguese have a town, called Tefi, at this place. This is their most western settlement, but it does not hence follow that it is on the frontier of their territory. The most eastern limit of Brazil is in lon. 34 30 W. The length of these possessions, from the mouth of the Arowary to the southern limit, is 2450 miles. The breadth, in Portuguese Guiana, exceeds 1000 miles. The greatest breadth, from the mouth of the Tefi to cape St. Roque, is more than 2000. That from the coast to the Paraguay, N. of the Mibotety, is about 1200; from the coast to the Parana, N. of the Iguazu, it is 450; and farther S. it terminates nearly in a point. The treaty limits of Brazil thus include more than one third of South-America. Almost all the country, however, W. of the Tocantin is still independent.

Boundaries. The territory N. of the Amazon is called *Portuguese Guiana.* Including that in our account, the boundaries are as follows; on the N. Spanish Guiana, now a part of Venezuela, English Guiana, and the Atlantic; on the E. and S. E. the Atlantic; on the S. W. and W. Buenos Ayres, Peru, and New-Granada.

Divisions. A good deal of uncertainty remains with respect to this article. The following we believe is correct:

I. *Northern Provinces.**
1. Para
2. Maranhao
3. Siara Patagues
4. Santa Catherina
5. Rio Grande
6. Paraiba
7. Temaraca
8. Pernambuco

II. *Middle Provinces.*
9. Seregippe
10. Bahia
11. Ilheos
12. Porto Seguro
13. Espiritu Santo

III. *Southern Provinces.*
14. Rio Janeiro
15. St. Vincent
16. Del Rey

IV. *Interior Provinces.*
17. Minas Goyaves or Gojas
18. Minas Geraes
19 Santo Paulo
20. Cuyaba
21. Mattogrosso

Name. This country was called, by its discoverer, *St. Croix.* It derived its present name from the celebrated dyewood found abundantly in its forests, called the *brazil wood.* This wood is mentioned by Chaucer, under its present name, and was known long before his time. Chaucer flourished a century before the discovery of America. The name was altered from *St. Croix* to *Brazil*, by order of Emmanuel.

History. Brazil was discovered by Pedro Alvarez Cabral, a Portuguese, in 1500, on a voyage from Lisbon to the East-Indies. He is said to have made his first landing at Porto Seguro. Emmanuel immediately claimed the whole country from the Amazon to the La Plata, and ordered it to be surveyed. As little gold or silver was found near the coast, it was, for a while, wholly neglected; and none but criminals and abandoned women were sent hither. In 1548 the inquisition, after plundering the Jews of their property, banished them to Brazil. Thomas de Sousa, the first Portuguese governor, was sent over the next year. He immediately built St. Salvador, on the bay of All Saints. This was the first settlement. As the province soon began to flourish, it was attacked by the French, and afterwards by the Spaniards, with little success. The Dutch, however, in 1624, sent a large armament, under Willikins, which reduced St. Salvador. Willikins left here a strong garrison and returned with a great deal of plunder. A Spanish squadron of 56 sail, with 12,000 seamen and marines, sailed the next year for St. Salvador, and took it after a short resistance. Brazil at this time was divided into 14 provinces. The Dutch took Pernambuco in 1630, and the provinces of Temaraca, Paraiba, and Rio Grande, in the 5 following years. Siara, Seregippe, and the greater part of Bahia, fell into their hands soon after, in spite of the vigorous opposition of the Spaniards. Portugal asserting her independence, in 1640, the 7 provinces of Brazil, which were not subdued by the Dutch, joined the mother country in shaking off the Spanish yoke. The Dutch and Portuguese immediately agreed to divide the country, each retaining 7 provinces. This division gave rise to the name

* The reader will see that Portuguese Guiana is not included among these divisions. So little is known respecting that territory, and so small a part of it is actually possessed by the Portuguese, that the government has never taken the trouble to divide it.

of *The Brazils*, instead of Brazil. As the Dutch government soon began to oppress the Portuguese colonists, they took up arms, and in a short time cleared Brazil of the Hollanders. Since that period Portugal has remained in undisturbed possession.

The government of Portugal, in consequence of the invasion of that country, by the French, in 1807, sailed for Brazil, and arrived there the latter part of that year.

Religion. The Catholic religion is established. Since the late removal of the government, all others have been tolerated. St. Salvador is the see of the archbishop of Brazil. Bishoprics are established at Rio Janeiro, Pernambuco, and various other places.

Government. Previous to the late revolution in Portugal the government of Brazil was committed to a viceroy, who formerly resided at St. Salvador; but, since the opening of the mines, Rio Janeiro has been the seat of government. The power of the viceroy was nearly absolute. A governor was appointed in each province with very important powers.

Brazil is now a monarchy. The crown is absolute, as it had long been in Portugal previous to its removal.

Population. Sir Geoge Staunton informs us, that the number of whites in Brazil, in 1792, was estimated at 200,000, and that of Africans, or their descendants, at 600,000. Twenty thousand blacks were then annually imported, and the climate is found favorable to their rapid increase. The freedom of trade granted about that time had drawn thither great numbers from Portugal, and various other countries, previous to the late French invasion. When the government removed, a large colony of Portuguese fled with them; and since that time the inhabitants of the mother country have lost no opportunity of following with their families and effects. A census is said to be now taking. We should not be surprised if its result should exceed 1,500,000 whites and 1,000,000 blacks. Beside these the number of Indians is very great. They live, generally, in considerable clans. The degree of their independence depends on their distance from the Portuguese settlements. They are generally under the middle size, muscular, stout, and active, of a light brown complexion, black, strong, uncurling hair, with very little beard, and long dark eyes, which discover no mark of imbecility of intellect. Nor does the turn of their features convey any character of meanness or vulgarity. On the contrary, their looks and expression are intelligent and distinct. No nations in America, except the Araucanians, have been so difficult to subdue as the tribes of Brazil; none have discovered such an invincible attachment to freedom.

Army, Navy, Revenue. Of the army, navy, and revenue of Brazil we have no recent, authentic information.

Manners and Customs. When walking abroad, men of the lower classes generally wear cloaks; those of the middle and higher ranks never appear without their swords. The ladies at home, like those of the Spanish provinces, wear only a single petticoat over a chemise. The latter is composed of the thinnest muslin, and is generally very much worked and ornamented. It is made so full

at the bosom, that on the smallest movement it drops over one or both shoulders, leaving the breast perfectly exposed; and beside, this is so thin and transparent, that the skin is every where visible beneath. This violation of female delicacy appears the more disgusting, as the complexion of the Brazilians is, in general, very indifferent, approaching to an obscure tawny. In the streets, and at mass, they appear in a black silk mantle, which hides the whole person; with their hair hanging down in tresses, tied with ribbands, and adorned with flowers; and with their heads uncovered. They are regular in their attendance, both at matins and vespers; and at other times are generally seated at their windows or balconies. Many of them have fine dark eyes, and animated countenances. In the evening they amuse themselves in playing on the harpsichord or guitar. In the larger towns operas, plays, and masquerades are among their diversions. Both sexes are extremely fond of amusement and pleasure. No real or fancied danger curbs the propensity of all classes. Although 20,000 blacks are annually imported, the number of genuine negroes is very small, compared with the immense numbers of the various mixed grades. In their houses and persons the inhabitants are remarkably negligent of cleanliness. The beds, linen, clothes, and cookery are often disgustingly filthy. The disease, so common in the West-Indies and Spanish South-America, is here no disgrace. The inhabitants are generally indolent. They are not less superstitious than the proper Portuguese. They are accused, also, by Staunton, of low cunning and a want of probity.

Literature. Great numbers of the creoles and some of the mestizoes, Indians, and mulattoes, have heretofore been educated in the universities of Portugal. The Brazilian creoles are said generally to have been superior to the Portuguese youths in the rapidity and extent of their attainments. There is a university at St. Salvador.

Cities and Towns. Rio Janeiro, or St. Sebastian, stands in lat. 22 54 S. and in lon. 42 44 W. Its harbor is scarcely to be excelled for its capaciousness, security, and convenience: About 4 miles outside of the harbor's mouth, there is 17 or 18 fathoms water. This gradually decreases for 2 miles to 7 or 8 on the bar, and thence it increases to 17 or 18 at the entrance. On the E. at the entrance, is the fort of Santa Cruz, supported by a huge mass of granite, with a perpendicular shore. On the W. is a great inclining sugar-loaf, 700 feet in height. The island of St. Lucia, on which is fort St. Lucia, lies directly in the harbor's mouth. The channel lies between the two forts, is less than a mile wide, and is well protected. Beyond these forts the harbor immediately expands to a width of three or four miles, with a depth of from 6 to 18 fathoms; and penetrates, in several branches, a considerable distance into the country. Beyond the town it grows much wider, and resembles a large lake, with many islands upon its surface. The town stands upon the west side of the harbor, 4 miles from the entrance, on a projecting tongue of land; beyond which, all the ground is broken into hills, and rocks, with woods, houses, convents, and churches on their tops. A convent of Benedictines, and a fort

commanding the town, are situate upon the extreme point jutting into the harbor. Opposite this point is Serpent island, containing a dockyard, magazines, and naval stores; between which and the town, there is a narrow channel, deep enough for the largest ships. Around the shores of this island are the usual anchoring places for the shipping that frequent the port. The streets are generally level, straight, and well paved, with the addition of foot paths. Many of them are of sufficient breadth. On the beach opposite the palace, is a spacious quay of granite. In the squares are refreshing fountains supplied by an aqueduct of considerable length, with excellent water. This aqueduct is carried over vallies, by a double row of arches, one placed above the other. The good houses are built chiefly of hewn stone, and are handsome. The churches and convents are numerous, and nobly built; and the religious parade, on holidays is not surpassed even by that of Lisbon. The present population is estimated by intelligent travellers at 150,000. The proportion of whites to the other classes is greater here than elsewhere, on account of the numerous recent immigrations from Portugal. The commerce of the town is in a most flourishing state. Every thing bears the appearance of thrift and prosperity. The climate is said to be unhealthy, and instances of longevity are rare. This is partly imputed to local and temporary causes. That dreadful disease, the *elephantiasis*, is too common. It destroys the sound texture of the integuments of the human frame; swells, and distorts, and discolors wherever it attacks; and enlarges the patient's misshapen limbs, to the bulk of those of the huge animal, from the resemblance to whom, in that particular, its name is derived.

St. Salvador, Bahia Todos los Santos, (Bay of All Saints) or, as it is most commonly called, *Bahia*, is in lat. 12 45 S. and lon. 39 31 W. The bay of All Saints puts up from S. to N. about 40 miles, and is 8 miles broad at the mouth. The town is built on the eastern shore of the bay, commencing about 1 mile from the point at the entrance. It extends upwards of three miles along the coast; and near the centre, more than a mile into the interior, gradually narrowing, however, towards each extremity. There is good anchorage close to the shore, and vessels may lie there safe from every wind. A single street runs along the shore the whole length of the town. Immediately back of this the country rises suddenly to the height of 400 feet. A few of the houses are on the side hill, the rest are on the top. The view of the town from the bay, or of the bay and surrounding country from the houses on the hill, are rarely surpassed. The descent is steep and laborious. Heavy bundles are conveyed up and down by cranes, and other machinery. The streets are broad, and well paved, and cross each other at right angles. The houses are almost universally of stone, strongly built, and handsome. The churches and convents are numerous, and many of them elegant. The population is estimated, by intelligent travellers, at 110 or 120,000, of whom, about 40,000 are whites, the rest mestizoes, Indians, mulattoes, and negroes. The commerce of the town is very extensive, and is daily becoming more so.

PERNAMBUCO is 450 miles N. E. of San Salvador, and has a small inconvenient harbor. Its commerce, however, is extensive, and the population is said to be about 40,000.

PARA lies on the E. bank of the Tocantin, in lat. 1 30 S. more than 900 miles W. N. W. of cape St. Roque. It stands on a commanding situation, and is well fortified. It is a rich and handsome town, containing several churches and a college, and has a flourishing commerce.

PORTO SEGURO is a sea port, about 280 miles S. by W. of San Salvador.

SAN PEDRO is a new, but very flourishing commercial town, in the southern part of Brazil, near the mouth of Rio Grande. It has grown up by an advantageous smuggling trade with Buenos Ayres.

Commerce. The trade of Brasil is now opened to all friendly nations. A frank and liberal system of regulations has lately been substituted in the room of the former narrow and impolitic restrictions. The capital exports are sugar, cotton, cattle, hides, rum, coffee, rice, tobacco, indigo, and Brazil-wood. The amount of exports is rapidly increasing every year. The cotton of Brazil and English Guiana will soon supersede the demand for that of the Southern United States, in the English market.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. SOIL AND AGRICULTURE. RIVERS. BOTANY. ZOOLOGY. MINERALOGY.

Climate. IN the tropical regions of Brazil the only seasons are the rainy and dry. The rainy season begins in April and ends in August. The mercury is rarely as high as 90°. At St. Salvador, in lat. 12 45 S. the annual temperature is about 70°, and the heat is not very often oppressive. Regular breezes from the sea occur daily, and are extremely refreshing. The climate of Brazil is described as generally healthy.

Soil and Agriculture. The soil is spoken of as remarkably fertile. All the larger rivers, like the Nile, overflow their banks, and enrich the circumjacent country. Maize, wheat, rice, maniac, the sugar cane, coffee, cacao, indigo, pepper, tobacco, and the cactus, on which is bred the insect yielding the cochineal, are among the objects of agriculture.

Rivers. The Amazon, from the mouth of the Tefi, if not farther, on the S. and from the western mouth of the Yupura on the N. is a Portuguese river. The Madeira, below the mouth of the Ytenas, and the Topayos and Zingu, through their whole extent, are in Brazil. The Parana, a branch of the La Plata, runs probably more than half its course in Brazil, and is also for some distance a boundary between it and Buenos Ayres. The Paraguay is a Brazilian stream, above lake Xarayes. Between that lake and the mountains

S. of the Mibotety, it is the western frontier. The Cuyaba, and several other large tributaries of the Paraguay, run wholly in Brazil. The Uraguay also rises here, and runs several hundred miles before it enters Buenos Ayres.

The San Francisco is the largest river of the eastern coast of Brazil, and the Tocantin of the northern. Both rise in the province of Minas Geraes. The former cannot run less than 1000 miles, nor the latter less than 1500.

Botany. The fruits of Brazil are the orange, lime, grape, lemon, pine apple, cocoa nut, mango, tamarind, and most of the other tropical fruits of America, both exotic and indigenous. The aromatic plants are ginger, turmeric, several varieties of pepper, American coffee, capricum or Guinea pepper, and the wild cinnamon. The most valuable medicinal plants are the *contrayerva ipecacuanha*, Indian pink, mechoacan, jalap, sarsaparilla, the *amyris*, which yields the gum elemi, and the guiacum. Brazil wood, log wood, fustic, mahogany, ebony, iron wood, rose wood, and satin wood are among the more valuable species of woods.

Zoology. Mules are the chief beasts of burden. The horses are small and incapable of much labor. In the interior they run wild in vast droves. All the interior abounds with herds of horned cattle. They are taken and killed in prodigious numbers, merely for their hides.

Among the wild beasts are the armadillo, weasel, otter, opossum, wild cat, porcupine, squirrel, hare, musk, deer, and wild boar.

The Brazilian birds are singularly beautiful, particularly several varieties of the parrot, the toucan, motmot, and palamedea.

Many of the reptiles are venomous. The *ibiboboca* or *boiguacu* often exceeds 24 feet in length, and is very large in the middle, but much smaller at the head and tail. Down the middle of the back runs a chain of black spots, a hand's breadth distant from one another, each having a spot of white in its centre; and below there are two other rows of smaller black spots towards the belly. It is extremely fierce and strong, but not venomous. The *liboya* or *roebuck snake* is said to be between 20 and 30 feet long. The rattle snake of Brazil is unusually large. The Indian salamander is an insect with 4 legs. Its sting is said to be fatal.

Mineralogy. The gold and diamond mines were opened in 1681. The most important are those in the province of *Minas Geraes*, or *General Mines*. These are about 75 leagues from Rio Janeiro. There are mines of gold also in Cuyaba, in Minas Goyavas, and in Santo Paulo. The diamond mines are near the little river Milhoverde, in about lat. 17° S. and lon. 44° W. The diamonds are inferior to those of Hindostan, of a brownish, obscure hue, and are sold 10 per cent. cheaper. One of the largest diamonds ever known was found here. It weighed 1680 carats, or 12¼ ounces, and was valued at 56,787,500*l.* sterling. All the diamond mines belong exclusively to the crown. The gold and silver mines are said to have yielded above 5 millions sterling annually.

VICEROYALTY OF BUENOS AYRES.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. DIVISIONS. NAMES. HISTORY. RELIGION. GOVERNMENT. POPULATION. ARMY. REVENUE. MANNERS. CITIES AND TOWNS. ROADS. MANUFACTURES AND COMMERCE.

Extent. THIS is the largest of the Spanish colonies in South-America. Cape Lobos, its most southern limit on the Atlantic, is in lat. 38° S. and the small river Chuy, its most northern, in lat. 33 40 S. It may be considered as reaching on the W. of the Paraguay to about the parallel of lat. 15° S. but on the E. of that river only to the chain of mountains S. of the Mibotety, in about lat. 20° S. The eastern coast, near the mouth of the small river Chuy, is in about lon. 53° W ; and the coast of the province of Atacama, on the Pacific, is in lon. 70° W.*

Boundaries. On the N. lies Peru, Amazonia and Brazil ; on the E. Brazil and the Atlantic ; on the S. Patagonia ; on the W. Chili, the Pacific ocean, and Peru.

Divisions. This country was formerly divided into 6 dioceses, La Pas, Santa Cruz de la Sierra, Charcas, Tucuman, Paraguay, and La Plata. These were subdivided into the following jurisdictions or provinces, arranged according to their geographical position, beginning at the N.

I. *La Pas.*
1. Lampa
2. Carabaya
3. Arangaro and Asilo
4. Laricaxas
5. Omasuyos
6. Chucuito
7. La Pas
8. Pacajes
9. Paucar-Colla

II. *Santa Cruz de la Sierra.*
10. Choco
11. Santa Cruz de la Sierra

III. *Charcas.*
12. Ciacica
13. Paria
14. Chayanta
15. Oruro
16. Attacama
17. Carangas
18. La Plata and Potosi
19. Porco
20. Amparaes
21. Lipos
22. Tarija or Chicas
23. Tomina

*The extensive province, or, as it is sometimes called, desert, of Atacama, lies between Chili and Peru, and bounds westward on the Pacific ocean. Ulloa, the later Spanish writers, and Wilcocke assert that it belongs to this viceroyalty. According to the map of Wilcocke, Port de Loa is its northern limit, on the coast, and Port Juncal the southern, leaving an interval of about 280 miles between them.

24. Pilaya and Pispaya
25. Cochabamba

IV. *Tucuman.*

26. Salta
27. Jujuy

V. *Paraguay.*

28. Guarania
29. Paraguay

VI. *Buenos Ayres.*

30. Monte Video
31. Buenos Ayres
32. Tuyu
33. Pampas

When the viceroyalty was constituted, in 1788, it was divided into 9 intendencies, each of which comprises a number of the preceding jurisdictions; but we have never seen them distributed. The names of the intendencies are as follows, La Pas, Paucar-Colla, Santa Cruz de la Sierra, La Plata, Potosi, Cochabamba, Tucuman or Salta, Paraguay, and Buenos Ayres. To these was added, as a tenth intendency, the province of Cuyo, taken from Chili, still however subject, in spiritualities, to the bishop of that captaingeneralship.

Names. While attached to Peru, this whole country was called *the province of Charcas*; or rather *the jurisdiction of the audience of Charcas.* Since the separation, it has been called by various names. In the time of Guthrie it was generally called *Paraguay*, a name originally belonging to the river Paraguay, the main branch of the La Plata, afterwards given to the bishopric, or province, and thence transferred to the whole viceroyalty. The word *Paraguay*, according to Charlevoix, denotes *the crowned river.* Others at the same time called it *La Plata*, the name given by Sebastian Cabot to the river, which is formed by the Paraguay, the Parana, and the Uraguay. Rio de la Plata denotes *the river of silver.* At present the most common name of the viceroyalty is *Buenos Ayres.* The Spaniards gave it to the city, on account of its *salubrious climate.* Thence it was transferred to the province, and thence to the whole country.

History. Juan de Solis discovered the great river in 1516, and called it by his own name. Cabot, in 1526, sailed 200 leagues up the Parana, and returning, went 30 leagues up the Paraguay, to the mouth of the Tercero, where he built the fort of the Holy Ghost. His establishment was soon broken up by the Indians. Buenos Ayres was settled in 1535, and evacuated in 1539. Its inhabitants removed to Assumption. The province of Charcas was subdued by Gonzales Pizarro, from Peru, in 1538, and the city of La Plata founded the next year. The government of Tucuman was established by the viceroy of Peru, in 1542, and the province subdued in 1549. Santa Cruz de la Sierra was founded in 1558. About 1560, Tucuman was claimed as a part of Chili, by the governor of that country, and actually occupied. He founded the towns Esteco, Salta, and Jujuri. In 1563, it was reannexed to Peru, and subjected to the jurisdiction of the audience of Las Charcas, which had been created in 1559. Buenos Ayres was resettled in 1580. In 1586, the Jesuits first made their appearance, and commenced their missions among the Indians. The audience of Buenos Ayres was established in 1663, extinguished soon after, and reestablished in 1783. The whole country was erected into a viceroyalty in 1778.

Religion. The care of the church in this viceroyalty is entrusted to the archbishop of La Plata and 5 bishops. His peculiar diocese, however, includes only the province of Charcas. It was erected into a bishopric in 1551, and into an archbishopric in 1608. The bishopric of Assumption was founded in 1547, and includes the whole province of Paraguay. That of Cordova was founded in 1570, and comprizes the province of Tucuman; that of Santa Cruz de la Sierra, in 1605, and extends through the province of the same name; that of La Pas, in 1608, and embraces the province of La Pas; and that of Buenos Ayres, in 1620, extending through that province. The inferior clergy are divided into *curas*, or parish priests, in the Spanish settlements; *doctrineros*, or priests settled among the subjugated Indians; and *missioneros*, or missionaries, among the wild Indians.

Government. The viceroy resides at Buenos Ayres, which is considered as the capital. His powers are similar to those of the viceroy of Peru. He is nominated for 3 years and has a salary of 40,000 dollars. There are two audiences in the viceroyalty. That of Charcas, at La Plata, and that of Buenos Ayres. We know not how far the jurisdiction of each extends. Each intendency is now subjected to a governor or intendent, with a salary of 6600 dollars, except the governor of Potosi, whose salary amounts to 10,000. Each governor is assisted by an assessor, who ranks as lieutenant general, and has a salary of 1500 dollars. These constitute a court, from which appeals lie to the audiences. In the 3 intendencies, particularly exposed to attacks from the wild Indians, Santa Cruz, Tucuman, and Paraguay, the governor is vested with the command of the troops.

Population. At the period of the first discovery of this country, Wilcocke estimates its population at 1,000,000 or 1,200,000 souls. On its present population he is silent. Estella computes the population of this extensive viceroyalty at 1,000,000 Spaniards or creoles and an inconsiderable number of Indians.

Army. In Buenos Ayres there are, according to Estella, commonly two companies of fusileers, a detachment of dragoons, and another of artillery, serving for the police of the city, and the garrison of the fortress. Beside the veteran troops there is a body of 500 men, called *blandengs*, divided into companies; and two regiments of militia. On a serious invasion of the country, probably a force of from 10,000 to 15,000 men might be brought into the field.

Revenue. The revenue of the crown is divided into 4 branches. The first is claimed by the king as supreme lord; the second comprised the duties on commerce; the third the spiritual revenues; the fourth arose from monopolies. It is stated, by Wilcocke, as follows:

First Branch.		
Duties on the coinage - - -	$650,000	
Profit on do. - - - - -	120,000	
Tribute of the Indians - - - - -	550,000	
		1,320,000
Second Branch.		
Customs - - - -	750,000	
Excise - - - - - -	585,000	
Stamp duty - - - - -	32,000	
		1,367,000
Third Branch.		
Produce of the bull of Cruzado - - -	160,000	
Annates - - - - - - -	30,000	
Royal ninths of the tythes - - -	72,000	
		262,000
Fourth Branch.		
From the monopolies of quicksilver, tobacco, gunpowder, and paper	350,000	
On the assiento of negroes - - -	200,000	
On the herb Paraguay, formerly monopolized by the Jesuits	500,000	
Other revenues of that order - - -	400,000	
		1,450,000
		$4,399,000

Manners. The chapetones, here, as in the other colonies, are entitled to peculiar priviliges, civil, and political, and hence are led to look down with disdain on every other class. They possess the common Spanish characteristics. The pride and licentiousness of the mother country are enhanced in the colony. The creoles can hold no civil or military office of rank. In the church they are excluded only from the episcopate. These exclusions joined to the enervating influence of the climate, have broken the energy of their minds, and discouraged them from vigorous exertions. In their religious tenets the inhabitants are far less bigotted, than the Spaniards. The common dress of the men is mostly an imitation of the French style, before the revolution, but with this the Spanish cloak is also united. On occasions of ceremony, the old Spanish garb, the doublet, hose, and cloak of parti-coloured silk, with their usual appendages of fringe, lace, or ribbands, a feathered hat, and a long sword distinguish the *hidalgos* and *cavalleros* from the rest of the community. The ladies are thought the handsomest in South-America. The playful voluptuousness of their manners, conversation, and dress is calculated to please and ensnare. Their usual dress is the same with that of the ladies of Peru. On extraordinary occasions they also display equal magnificence and profusion. Going to mass, music, and visits occupy the morning; the *siesta*, the middle of the day; and dress, music, coversation, and occasionally dancing, the evening. The national dance, the *fandango*, is a great favorite; and the still more indecent *calenda*, which was introduced by the Guinea negroes, has become no less

the pastime of the whites. In their assemblies the etiquette of rank is nearly abolished, and all, not contaminated by Indian or negro blood, are admitted. The *terceron mestizoes* and the *quinteron mulattoes* are looked upon as genuine creoles, except where the influence of imagination has retarded the blanching. In public companies, the sexes intermingle, but in private, the men are not allowed to sit among the women, unless particularly invited. From this restraint ecclesiastics of all descriptions are free. When on horseback, the men wear the Indian *poncho*, which resembles, in shape, the smockfrock of the American farmers. It is often richly embroidered. Their equipages are chiefly imported from Europe. Those made in the country are very clumsy, as are their saddles and stirrups. The *siesta* is universal among all classes. To sleep, talk, smoke, and ride on horseback, are the occupations of the day, among the wealthy. The abundance and cheapness of horses and mules are so great, that the whites are rarely seen on foot. Few families of any note, in Buenos Ayres, and Monte Video, keep less than 6 or 8 slaves, and many have 40 or 50. Within doors they are filthy in the extreme; ablution of any kind being rarely performed. Flies, and various kinds of vermin, are constant plagues in every house, and the ravages of the ants are not less than those of the rats and mice. Two matrasses are used instead of a bed; the lower one made of pimento leaves, stitched in fine cotton; the upper one, of the down of geese or fine wool, laid between pimento leaves, and covered with silk or velvet. Fine gauze curtains protect them from flies. Their cookery is but indifferent. Both meat and fish are completely disguised by the accumulation of spices, eggs, oil, onions, and garlic, with which they are dished up. Instead of butter, they make use of beef suet, melted down and refined.

The inhabitants of a mixed race, both mestizoes and mulattoes are numerous. They have hardy, robust frames; and engage in those professions, which the whites are too proud, or too indolent to exercise. They are mechanics, farmers, and tradesmen. Many of the *mestizoes* are also musicians, painters, teachers of the liberal arts, and physicians. The females of both these classes, chiefly devote themselves to a life of prostitution, and acquire an ascendency over the minds of the whites, which the Spanish and Creolian women fail of attaining. They are said also to be as faithful to their paramours, as the married women to their husbands. The old Spanish jealousy, so long the disturber of domestic, and even national tranquillity, has almost disappeared in Spain. Here it is not only gone, but a most licentious indifference has taken its place. Intrigues are scarcely necessary. Illegitimate children are publicly acknowledged; and if not too cupreous, or too sable, are entitled to the right of inheritance.

The *converted* Indians live partly among the Spaniards, and partly by themselves. The first are subject to the Spanish laws, and magistrates; are much oppressed, extremely indolent, and sunk below the negro slaves. In their villages they are governed by their own caciques, according to traditionary usage. They of-

ten suffer from the avarice of individuals, and the exactions of the magistrates. They are timid, suspicious, and deceitful. Certain duties are exacted of them by the laws. In the discharge of these, they are called out in divisions, and no one can be compelled to go but in his turn. The number called out must not exceed the seventh part of the inhabitants of the district. These duties are to assist in the culture of maize, or other necessary grain, to tend cattle, to build public edifices, and bridges, to work upon roads, and to dig in the mines. In this last employment, none of them can be retained more than 6 months at a time, and none can be carried to any mine, more than 30 miles from their usual residence. They also receive 4 reals a day. The tribute collected of them, amounts on an average, to about a dollar a head, from every male between 18 and 50.

The negro slaves are not very numerous, and are chiefly employed in domestic service. They experience much more kindness than the Indians, and treat them with so much scorn, and insolence, that the antipathy between the two races, has become implacable.

Cities and Towns. BUENOS AYRES is built on the S. W. bank of the La Plata, in lat. 34 37 S. and lon. 58 13 W. Ships cannot approach within a considerable distance of the shore, and are compelled to unload by lighters. The river here is 30 miles across, and is merely an open road. The opposite bank being low, is rarely visible. The creek *Reachucio* falls into the La Plata, on the E. border of the town Small craft only can enter it. The town extends about a mile along the bank, and half a mile in breadth. The streets are all straight, and cross at right angles. The parade is a large area, 40 rods square, in the middle of the town, from E. to W. The castle, on the N. side of it, fronts the river. The usual garrison is 700 men. The English found 2000 stand of arms in it. The cathedral, on the N. W. side of the parade, is spacious, and elegant. The cupola is of excellent workmanship, and the interior profusely decorated. There are three other churches, and several monasteries, and nunneries. The town hall, on the S. W. side of the parade, is large and handsome. All these edifices are built of a beautiful white stone, found in a plain not far from the town. The streets are broad, and paved with sidewalks, but not in the middle. The houses are of brick, and about 6000 in number. Most of them have gardens before and behind, and many have balconies with latticework, for the reception of flowers, and shrubs. Their interior is, however, very dirty. Sir Home Popham, in 1806, estimated the population at 70,000. About half are whites; the rest are Indians, negroes, and mixed. The town is well supplied with provisions.

MONTE VIDEO was settled in 1726, by a few individuals; and, in 1731, fourteen or fifteen families, from Palma, one of the Canary islands, came here, and laid the foundations of the city. It stands on the N. shore of the La Plata, in lat. 34 55 S. and lon. 56 4 W. on the only good port in the river. The harbor has a narrow entrance, is of a circular shape, about 4 miles across, has a soft, clayey bottom, and is deep enough for ships of the first rate. The harbor

and town derive their name from a high mountain on the western point, which may be seen 15 leagues. The town occupies the whole of a peninsular promontory, that forms the eastern point of the harbor. The fortifications are to the N. of the town. They are built of stone, and reach across the breadth of the isthmus. The fort is strong, has 4 bastions, and is mounted with brass cannon in the centre; the barracks are bomb proof. The garrison generally consists of 400 or 500 men. The town makes a handsome appearance from the harbor; as it is built upon an ascent, and the houses appear interspersed with gardens and trees. The houses are all of stone or brick, and most of them one story. The roofs are flat, and the floors of brick, though some have only earth. Few have glass windows or chimnies. Fire is generally kindled in the yard, or in separate kitchens; and in cold wet weather, is brought into the rooms in fire pans. The streets are straight, and cross each other at right angles; but are very rough, and incommodious. Near the top of the town, is the market place, about 300 yards square. On the W. is a large church. The population is about 30,000. Among these are a collection of strollers, called *guaderios*. Their mode of life resembles that of the gypsies, except, that they are not addicted to thieving. Their dress consists of a coarse shirt, and coarser frock. They get their living by playing to the country people on a species of guitar, and singing songs of their own composition.

Potosi owed its origin to the well known silver mines, and was founded soon after their discovery, in 1545. It stands in lat. 20 26 S. and in lón. 66 16 W. about 60 miles from La Plata, on the S. side of a mountain of the same name, and is about 8 miles in circuit. The churches are remarkably magnificent, and profusely decorated with utensils and ornaments of gold and silver. The houses in general are well built, and are most sumptuously furnished. The town, according to Helms, contains 70,000 inhabitants, exclusive of slaves and others, to the number of 30,000, employed in the adjacent mines; making its whole population 100,000. Of the inhabitants about 10,000 are Spaniards, many of them noble and very wealthy, and magnificent in their mode of living. The air of the mountain is cold and dry, and the adjacent country is remarkably barren. Provisions, fuel, and timber for building, are brought from a great distance. The two last are very expensive. The militia of the place, about 500 in number, are described as making a wretched appearance.

La Plata was founded, in 1538, on the site of the large Indian town *Chiquisica*. It stands in a small plain, environed by eminences, which defend it from the wind. The houses in the great square are of two stories, but the others are of one. They are covered with tiles, are very roomy and convenient, and have gardens furnished with European fruits. The inhabitants amount to about 14,000. The cathedral is large, and of good architecture, much ornamented with gilding and painting. There is another church, 5 monasteries, 2 nunneries, and a hospital. There is also a university dedicated to St. Francis Xavier. Two leagues from the city

runs the Chilcomayo, on which are a number of pleasant villas. About 6 leagues from it, on the road to Potosi, runs the Pilcomayo. During some months of the year, this river furnishes the inhabitants with a great abundance of fish; particularly *dorados*, which weigh from 20 to 25 pounds.

La Pas was founded in 1548, in a fruitful valley, at the foot of one of the high ridges of the cordillera. It contains 5 churches, a cathedral, 5 monasteries, 3 nunneries, a college, about 4000 houses, and 20,000 inhabitants.

Assumption stands on the E. bank of the Paraguay, a little above the mouth of the Pilcomayo, and 977 miles from the sea. A fort was built here in 1538, which, from the conveniency of its situation, soon grew into a city. It contains about 500 Spanish families, and several thousands of mestizos and Indians. The Spaniards pride themselves on their descent from some of the best families of Spain. Contiguous to the town there is a single mountain of extraordinary height. The adjacent territory is very fertile, abounding in fine native and exotic fruits; the climate is genial and temperate; the trees are clothed in perpetual verdure; and the rich pastures feed numerous herds of cattle.

Yaguaron is a large town, inhabited solely by Indians, about 20 miles below.

The other towns shall be mentioned in a geographical order, beginning at the N.

Puno is the most northern town of any size in the viceroyalty. It is built on the W. bank of lake Titicaca, and is rich and populous, containing 2 handsome churches. The Indians manufacture large quantities of woollen cloth.

Chucuito is on the E. side of the same lake, and is a beautiful village. The inhabitants drive a beneficial trade in dried and salted beef.

Santa Cruz de la Sierra stands at the foot of a chain of mountains, which bounds the country of the Chiquitas Indians to the N. and thence runs N. E. towards lake Xarayes. The site of the town is a circular peninsula, formed by the river Guapay. It is large and populous, but ill built. The houses are of stone, thatched with palm leaves.

Oropesa, the capital of Cochabamba, is in lat. 19° S. and lon. 66 10 W. It carries on a profitable trade in provisions with Potosi.

Atacama, in lat. 23 30 S. is only 100 miles from the Pacific ocean, on which it has a little port, called *Cobija*. The province of Atacama, of which it is the capital, is an extensive desert, between Chili and Peru.

Jujui is a small town, containing about 3000 inhabitants. It carries on a profitable trade with Potosi.

Salta is pleasantly situated on the Arias, in a valley surrounded by mountains, in lat. 24 15 S. It is regularly divided by 4 broad streets. The market place is an extensive square, on one side of which stands a large and beautiful town house, and opposite to it the principal church. There are 7 churches, 600 Spanish families, and about 9000 inhabitants. The trade is extensive with Potosi, Peru, and Chili.

San Miguel was built in 1549, and is a pleasant little town, on a branch of the Dolce, containing 3 monasteries.

San Yago del Estero stands on a flat, surrounded by forests, on the W. bank of the Dolce, which is here large and navigable. It contains 4 churches and 500 families, chiefly mestizoes and mulattoes. The inhabitants are disfigured by wens.

Corrientes stands at the confluence of the Parana with the Paraguay, and has a church and 3 convents.

Cordova is in lat. 31 30 S. and in lon. 63 30 W. in a marshy soil, on a small river, called the Primero, which is lost in the salt lakes to the S. E. It carries on a considerable trade with Peru. The streets are paved. The cathedral is a handsome edifice; and the public square spacious, and adorned with buildings of considerable magnitude. It contains about 1500 whites, 4000 negroes, and a number of Indians. The climate is healthy and temperate, and the adjacent territory highly productive.

Santa Fe, about 240 miles N. W. of Buenos Ayres, is built of brick, and is a town of middling size. It stands at the confluence of the Salada with the Paraguay.

St. Sacrament, nearly opposite Buenos Ayres, was founded by the Portuguese in 1679, and, after occasioning many disputes, was ceded to Spain in 1788. It has a tolerable port, formed by the islands of St. Gabriel. The fortress on one of these is a strong one.

Maldonado is an open harbor near the N. entrance of the La Plata. It is fortified.

Roads. The usual route from Monte Video to Buenos Ayres is by water, 55 leagues. The shortest passages are 24 hours; the longest 14 days. In the dry season the best route is by land, to San Carlos, 120 miles, and thence, in a ferry boat, 10 leagues to Buenos Ayres.

A most important overland commerce has long been carried on between the viceroyalties of Peru and Buenos Ayres. The route is entirely by land, and crosses the ridges of the Andes. The following itinerary of the route is taken from Wilcocke's account of Buenos Ayres. The distances are in geographical miles.

	g. miles.	g. miles.
From Buenos Ayres to Cannada de la Cruz, on the confines of the Pampas	60	60
To Frailem Muerto, at the N. extremity of the Pampas	262	322
To Cordova	146	468
To Coral de Baranca	84	552
To San Jago del Estero	246	798
To San Miguel del Tucuman	126	924
To Salta. Here the carcillas are laid aside, and mules alone are fit to perform the rest of the journey	251	1175
To Jujui	42	1217
To Los Colorados	105	1322
To Moxas, a large Indian town	115	1437
To Potosi	180	1617
To Lagumillas	42	1659
To Oruro	134	1793

To La Pas	135	1928
To Guaqui	41	1969
To Chucuito	94	2063
To Cusco	207	2270
To Carretas	51	2321
To Guamanga	210	2531
To Guancavelica	84	2615
To Cannette, a little beyond which the cordillera terminates	126	2741
To Lima	81	2822

For the first 60 miles the route is through a pleasant country of small hills and vallies; for the succeeding 262 it is an absolute level. Thence to Cordova, 146 miles, is a forested country, with a gentle, uniform ascent; and thence, 84 miles, to Coral de Baranca, it is considerably broken. Here the mountains rise considerably, and the road continues along their eastern side, rough and difficult, to Salta, 623 miles. There it turns over the main ridge of the cordillera, the summits of which are covered with snow. The roads are wretched, and the journey dangerous; particularly in summer, when the numerous rapid rivers and torrents, that descend through the gullies, and which are frequently crossed and recrossed, often swell very suddenly, and carry away travellers, mules, and baggage. The winds, also, are extremely cold and piercing, and the woods cease altogether. About 8 miles beyond Los Colorados is the highest part of this cordillera, which the traveller passes. The road continues on the mountains, as far as Lagumillas, in all 1107 miles. Thence to Cusco extends a valley, with little interruption, 611 miles along the eastern cordillera. At Carretas, 51 miles farther, the ascent of the western cordillera begins, and is steep and bold. The mountain streams are here crossed on Indian hanging bridges, made of the *bejuco*. The road lies among the mountains to a little beyond Cannette, 420 miles. Near Jangas, on the western declivity of the cordillera, 36 miles from Cannette, it is in many places scarcely more than a foot broad, and one false step of the mule would precipitate him and his rider into the abyss below. From the foot of the cordillera to Lima, nearly 81 miles, the road is over the flat country of Valles, chiefly sandy.

Manufactures and Commerce. The exports from this territory, between 1748 and 1753, amounted to an annual average of gold, in ingots, $282.352; silver, coined and uncoined, $700,000; vicuna wool, 300 quintals, $38,400; and 150,000 hides, $600,000, in all $1,620,752. The amount of gold and silver received by Spain from Jan. 1, 1754, to Jan. 1, 1765, 11 years, was gold $2,142,626, silver $10,326,090, in all $12,468,716.

In 1796 the state of the trade was as follows: The imports from Spain were brought in 63 vessels, the value of whose cargoes was $2,853,944; of which $1,705,866 were in Spanish produce, and $1,148,078 in foreign produce. The exports to Spain, the same year, consisted of 874.593 ox hides, 43,752 horse hides, 2541 tanned hides, 222 dozen sheep skins, 24,435 fine furs, 46,800 arobes of tallow, 451,000 ox horns, 2128 quintals of salt beef, 185 do. of salt pork,

11,890 goose wings, 771 arobes of vicuna wool, 291 do. of guanuco wool, 2264 do. of common wool, 3223 quintals of copper, and 4 do. of tin, valued together at $1,076,877, and $1,425,701 in coined and uncoined gold, and $2,556,304 in coined and uncoined silver, in all $5,058,882. From the Havanna two ships imported 22,159 arobes of sugar, 239 casks of brandy, 212 jars of honey, 258 arobes of cacao, 1864 do. of white wax, and 750 varas of acana wood, valued together at $123,562; and 14 vessels carried thither 252 dozen sheep skins, 325 fine furs, 13,600 arobes of tallow, 69,050 quintals of salt meat, 280 goose wings, 190 arobes of wool, valued together at $136,050; and gold to the amount of $24,060, in all $160,110. From Lima and Guayaquil two ships brought 10,975 arobes of sugar, 200 salt stones, 1472 arobes of cacao, 816 arobes of rice, 378 pounds of cinnamon, and 990 pounds of indigo, valued together at $50,154; while the exports consisting of 1680 arobes of tallow, 238 negro slaves, 2094 hoes, 620 pounds of thread, 42 dozen pair of silk hose, and 120 hats, amounted to $67,150. The chief commerce with Peru is, however, by land and has heretofore been stated. From Africa were brought 1350 negro slaves in 4 Spanish and 5 foreign ships; and 2 foreign and 9 country ships were despatched thither with money $159,820, and with goods $24,703. The following is a summary of the preceding statement, together with the overland exports and imports to Peru in 1789:

	Exports.			
	money.	goods.	total.	Imports.
Spain	$3,982,005	$1,076,877	$5,058,882	$2,853,944
Havanna	24,060	136,050	160,110	123,562
Africa	159,820	24,703	184,523	337,500
Lima & Guayaquil		67,150	67,150	50,154
Peru, by land, in 1789	1,170,190	864,790	2,034,980	2,034,980

Large droves of cattle are annually sent to Peru by land, and not less than 60,000 mules. They are driven by easy journeys to Salta, where they winter and are in the spring delivered at Potosi. The mules cost from 3 to 4 dollars, and nett at Potosi 8 or 10, and the cattle 3 or 4.

The trade with the Indians is of considerable value. Trinkets, cutlery, coarse cloths, and brandy are exchanged for horses, cattle, furs, and skins. As soon as the articles to be sold arrive at an Indian village, after the customary present to the cacique and his family, he blows a horn and collects his subjects at the signal. The terms are agreed on in the lump, the cacique distributes the articles, and the merchant knows none of his debtors. At the appointed time the merchant reappears, the cacique again sounds his horn, and each brings in faithfully his own portion of the payment.

About 40 vessels, of 200 or 250 tons, are constantly engaged in a contraband trade between this country and Brazil. Salt, sugar, earthen ware, and British and German goods, are received from San Pedro, and other ports in Brazil, at Maldonado, and Monte Video for silver.

The commerce with the United States is valuable. The articles

introduced are, openly, slaves, and various kinds of goods under cover. The trade is circuitous, to escape the penalties of the laws of the United States. The vessel originally takes a cargo for Europe, and there purchases the proper articles for the African coast, as well as others for the market of Buenos Ayres. After the slaves are procured, they are carried to the two ports on the La Plata; and, while an open trade is carried on for the slaves, a clandestine one is engaged in for the goods. The vessel, loaded with hides and tallow, and having a large quantity of silver on board, returns to Europe. The hides and tallow are there disposed of for European goods, and these with the silver are carried to America.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. MOUNTAINS. BOTANY. ZOOLOGY. MINERALOGY.

Climate. THE country, on the La Plata and around the capital, enjoys a climate equally salubrious and pleasant, and of nearly a uniform temperature. In winter, however, thunder and lightning are not uncommon, and the rains are sometimes of long continuance. Every variety of temperature occurs in the interior in the neighborhood of the mountains.

Face of the Country. At the southeastern limit of the viceroyalty there is a ridge of mountains, beginning about 6 leagues from the coast, and running W. 40 leagues. Along the coast, from the La Plata to within 3 leagues of cape Lobos, extend 3 ridges of sand; the first high and loose, and near the sea; the second half a mile distant, and lower; the third narrow, and scarcely 2 feet in height. The land between them is a flat waste of sand. Westward of this lies a low, boggy marsh, 2 leagues in breadth, all along the coast. On the border of this commences the more elevated, clayey plain of Tuyu, reaching more than 40 leagues westward. Between cape Antonio and Buenos Ayres are found 3 or 4 moderately elevated hills. All the rest is a plain, low country, with high, watery grass. The N. side of the river is more elevated than the southern, but its shores are generally low. At no great distance W. of Buenos Ayres, commence the pampas, an immense sea of waving grass, nearly a perfect level, and scarce elevated above the surface of the ocean. Hence they extend westward to the Andes, about 700 miles. Their southern limit is between the rivers Negro and the Hueuque Leuvu, whence they extend northward, on the La Plata, as far as the Saladillo. The eastern and greater half of the bishopric of Tucuman, and the province of Chaco, are also plains of considerable extent and elevation. The diocese of Charcas is chiefly rough and mountainous; while the greater part of the province of Paraguay is a wide and level plain. On the whole this may be denominated a level country.

Soil and Agriculture. Near the Spanish settlements, where the pampas have been tilled, they yield excellent corn and various other productions. Elsewhere they are covered with a native grass, which feeds unnumbered millions of wild cattle and horses. Scarcely any islands of wood are found in the whole extent. The province of Tuyu, except the narrow border near the coast already mentioned, has a soil of clay, and is productive. The grass is high and flourishing. In the province of Buenos Ayres, along the La Plata, the soil is a rich, sandy loam, yielding maize and wheat, without manure. This is true of the country around Monte Video. Almost all the interior country is also fertile, and susceptible of high cultivation, except the deserts among the mountains. These are chiefly found in the diocese of Charcas. Agriculture has there been greatly neglected; the mines having long been the chief object of attention.

Rivers. The La Plata opens into the ocean, between cape St. Anthony on the S. and cape Santa Maria on the N. These capes are 150 miles apart. Its average breadth for about 70 miles, is 120 miles. A little below Monte Video it narrows suddenly, between point Carretas on the N. and point Piedras on the S; and at that city is only 80 miles broad. Thence to Buenos Ayres, 180 miles from its mouth, it gradually narrows, and is there only 30 miles across. It retains this width about 20 miles farther to the mouth of the Uruguay. The Paraguay, the main stream of the La Plata, has heretofore been described. The Cuyaba, its principal tributary, from the E. rises in the Brazilian cordillera.

The Pilcomayo, or *River of Sparrows*, is the largest western branch of the Paraguay. It rises in the western Cordillera, and receiving from the N. W. the *Araguay*, which passes between Potosi and La Plata, runs N. of E. through the mountainous country, and into the plains of Chaco, about 600 miles. Here bending southward, it runs S. E. upwards of 450, falling into the Paraguay, by two mouths, more than 50 miles apart. Between its two channels lies an extensive island, low and marshy; which, in the rainy season, is often wholly overflowed, as are the river's banks to a great distance. In its progress through the plains of Chaco, it abounds with alligators, which are distinguished for their voracity. The Pilcomayo is very difficult of navigation.

The Vermejo, or Red river, rises in Tarija, a mountainous district, to the S. of Potosi. In length and size it is not greatly inferior to the Pilcomayo. Its current is very gentle, and the ascent, by the aid of regular southern breezes, is as easy as its descent. Few rivers are equally navigable. In 1790, Don Fernandez Cornejo embarked at a small haven, or bay, in the Vermejo, at its confluence with the Centa, on board a xebec, and in 44 days reached the Paraguay, without encountering the least obstacle, in a run of about 1000 miles. The length of the navigation was owing to his being employed much of the time in exploring the banks of the river, and the adjacent country. It is supposed that 3 weeks will suffice for the voyage down, and 30 or 40 days for that up the river, its current is so gentle. The Vermejo falls into the Paraguay 70 miles above Corrientes.

The Parana, which robs the Paraguay of its name, descends from the mountains of Brazil. Its main stream, the Rio Grande, heads in the mountainous region of *Minees Geraes*, and running N. of W. a great distance, is enriched by the waters of the Paranaiba, a large stream from the same mountains. Here the Parana turns to the S. W. and soon after to the S. by W. a course, which it continues as far as Trinidad. Its direction is thence W. upwards of 200 miles, to Corrientes. In lat. 24° is the fall of *Itu*, formed by a collection of rocks, that rise in separate masses, and leave channels like embrasures for the passage of the water. Boats pass down without difficulty, and are drawn up by ropes. The Parana runs in a broad, deep, channel, and seldom overflows its banks. Its length and size are little inferior to those of the Paraguay. The *Iguazu*, a short but rapid stream, from the E. falls into the Parana in lat. 25 30.

The Salado, or Salt river, is the largest tributary of the La Plata, from the W. It rises in the mountains of Tucuman, and runs a southeasterly course of 850 or 900 miles, emptying its waters at Santa Fe, in lat. 31 40.

The Tercero rises in the mountains of Achala, S. W. of Cordova; and before it leaves the highlands, passes over a considerable fall. Coming to the plains, it disappears in the dry season, and is lost in the sands, but breaks out again at some distance. In times of rain it increases very much, and brings down with its rapid current great quantities of wood. Its course is winding, and its banks, for 60 miles after it leaves the mountains, are full of high willow trees. Below, it flows through rich pastures, and at Cruzalta, takes its native name of *Zarcaranna*.

The Uraguay rises in the eastern part of Brazil, and runs for a time nearly parallel with the mountains. Its course is S. W. and S. and its length not less than 1200 miles. The quick accumulation of the waters from the mountain torrents renders it extremely rapid; and when it leaves the hilly country, it attains so great a breadth, 690 miles from its mouth, that a ten oared boat requires half an hour to cross it, though it runs there with a moderate current. On the whole it is a rocky and turbulent stream of difficult navigation. It abounds in fish, and the country through which it passes, is romantic, beautiful, and fertile.

The Barombon is a broad channel for numerous lakes, that lie in the plain of Matanza S. W. of Buenos Ayres to the La Plata. The largest of these lakes are *Reduction*, *Sauce*, *Vitel*, and *Chascamuz*. It is sometimes near a mile in breadth, having neither banks nor falls, but a very broad, flat bottom. When at its greatest increase it is not more than one fathom deep in the middle. During the greatest part of the year it is entirely dry.

The Saladillo may be considered as a continuation of the *Rio Quinto*, which rises in the hills of Yacanto, and loses itself in a marshy lake, called *Punto del Sauce*; but in the rainy season, communicates, by various channels, with the Saladillo, which breaks out a little farther. This last runs very low, most of the year; and at Callighon, 20 miles from its mouth, where it is very broad, is scarce-

ly ancle deep. Yet in the beginning of October, it swells prodigiously, rises above its banks, and is there nearly 9 feet deep. The flood lasts about 3 months. It empties into the La Plata about 50 miles from cape Anthony.

The Dulce, or *Sweet river*, rises in the mountains of Tucuman, and watering San Miquel and San Jago del Estero, loses itself in the salt lakes N. E. of Cordova. It flows nearly parallel with the Salada, and is a river of considerable length.

The Mamore, or *Rio Grande*, and the Magdalena, both rise on the N. side of the mountains of Chiquitos, in the extensive province of Santa Cruz de la Sierra, and running N. W. a long distance through the valley of the Amazon, at length unite and form the Madeira, the great southern arm of the Amazon, and the largest tributary stream on the globe.

Lakes. Lake Titicaca lies between the two cordilleras of the Andes, in the N. W. part of the viceroyalty. Its figure is irregular, but inclining to oval, and its longest diameter is from S. E. to N. W. It is about 240 miles in circuit, and in some places from 70 to 80 fathoms deep. It is navigated by ships, but is subject to storms and tremendous gusts of wind, descending from the mountains. The waters are turbid, and have a nauseous taste, but abound with fish. Immense quantities of water fowl frequent it, and the shores are covered with flags and rushes. The surrounding country is populous, and fertile, thick sown with towns, and villages. Ten or twelve rivers fall into the lake. It has several islands; the largest of which, *Titicaca*, was the early residence of Manco Capac, the illustrious founder of the Peruvian monarchy. It was here that he first conceived the design of civilizing the wandering and naked savages, who inhabited the mountains, and plains around him. Here Capac, and Mama Oella Huaco, his sister, and wife, first declared themselves *the children of the sun*, sent by their beneficent parent to reclaim the human race from ignorance, and barbarity. The nations around them revered their persons, and followed their instructions. On this island, ever held sacred by the Peruvians, they built a most splendid temple of the sun, enriched and decorated with every ornament, which their mountains could furnish. Besides the plates of gold and silver, with which its walls were adorned, it contained an immense collection of treasure; as the subjects of the incas were under an indispensable obligation of visiting it once a year, and offering some gift to the memory of Manco Capac. When the Spaniards invaded the island, to plunder the temple, the Peruvians threw the whole of its treasures into the lake, to prevent it from becoming a prey to their sacrilegious invaders.

The Desaguadero, or drain of Titicaca, runs out of the lake, and terminates in the lake of Paria. Over the drain still remains the bridge of rushes, from 8 to 100 yards long, which Capac Yupanqui, the fifth inca, constructed for the transportation of his army, in order to subdue the provinces of Collasuyo.

The lake of Paria is of considerable size, and has no visible outlet; but abounds with eddies, and whirlpools.

The lake of Iberi, or Caracaras, lies between 28° and 30° S. lat. E. of the La Plata, and S. of the Parana. It is of an irregular figure, upwards of 100 miles in length, and 40 in breadth. It is studded with islands, which are covered with wood, and stocked with deer and other game. Vast quantities of wild fowl are seen over its surface, and fish of an excellent quality abound in its waters. It has two outlets. The Corrientes, sometimes called the St. Lucia, issues from its western side, and pursues a S. W. course to the Parana, emptying at St. Lucia, in lat. 30° S. The Mirinay, also called the Iberi, a much larger stream, runs out at the southeastern corner, and pursues a southern course to the Uraguay.

Mountains. The eastern part of the mountains of Tuyu, is called by the Indians *Voolcan*, which the Spaniards have altered to *Vulcan*. The middle part of it is called *Tandil*, from a summit of that name, the highest in the whole chain. The western point of the chain is called *Cayru*. Its whole length is 40 leagues from W. to E.; and it terminates about 6 leagues from the sea. These mountains have between them large and pleasant vales of uncommon fertility. On the N. they rise abruptly from the clayey plain of Tuyu, and are visible in a clear day at the distance of 20 leagues.

The Andes skirt the viceroyalty on the W. and have heretofore been described. In the province of Charcas, numerous smaller ridges lie E. of the principal chain, forming successive steps to the plains below.

The chain of mountains, called by Humboldt, the *chain of Chiquitos*, parts from the Andes about the latitude of 19° S.; and pursues, for a great distance, an eastward course, a little N. of Potosi, and La Plata, between the sources of the Pilcomayo and the Madeira. In the country of the Chiquitos Indians, it bears to the N. as far as the sources of the Paraguay, which it separates from those of the Ytenas, a branch of the Magdalena, and those of the Topayas, and the Zingu, tributaries of the Amazon. Thence it bears to the S. E. dividing the waters of the Parana from those of the Tocantin. We know not whether it terminates here, in the province of Minas Geraes, in Brazil, or whether, as is probable, a chain extends from it northward, forming the height of land in that kingdom, and separating the waters of the Tocantin and the San Francisco: while another passes to the S. not far from the coast, dividing those of the Parana from the small primitive streams of southern Brazil.

Botany. The *algarova* is a large tree of the size of an oak; in Tucuman, Paraguay, and farther N.; has a strong, durable, coarse grained, red timber; and yields a sweet fruit, enclosed in pods, of which the inhabitants make a considerable harvest, grinding it into flour. *Chica* is made of the pods bruised. There are two other species of smaller size. The *molle* is also a large tree, growing in Tucuman. There are two sorts. Their leaves are used to tan the fine goatskin leather of Tucuman. A gum distilling from them is highly odoriferous, and is used as incense. The larger kind bears a small, sweet fruit, of the size of a currant. There are two species of *quiabrahacho* or *break-axe*. The *white* has leaves

like box, and very hard, heavy timber, of the color of boxwood. The *red* has leaves like the yew, and is the larger. Its timber can only be worked when green, is as red as blood, and can scarcely be distinguished in its color or hardness from red marble. The *lapacho* has a dusky green timber, very hard, and heavy. The *wild walnuts* are large and lofty, but bear no fruit. The *lamza* has an excellent yellow timber, of which the Indians make their lances. The *pine* of the Andes, on the borders of Chili, is large, and lofty; has a solid, hard, white timber, yielding excellent masts; and bears a fruit, called the *pine nut*, as large as a date, which tastes like the almond. The tree produces a considerable quantity of turpentine. The *lahual* is of the fir species, and splits into boards with remarkable facility, and accuracy. *Guiacum*, *dragon's blood*, the *balsam of caaci*, that called *aquaribaigh*, *gum isica*, and various other medicinal gums are found in the forests. Valerian, meum, sarsaparilla, *schynant*, an aromatic and pungent root, ginger, and many other plants of spontaneous growth, abound in most parts. Extensive forests of the *quinquina* are found in Los Charcas, along the Andes. The *herb Paraguay*, called also the *tea of Paraguay*, is the leaf of a species of *flex*, called *caa*, about the size of a middling apple-tree. The shape of the leaf resembles that of the orange tree. The seeds are like those of the ivy. The leaves are roasted or dried, and almost pulverized, before they are packed up. It is in great demand all over South-America, and grows chiefly in the province of Paraguay. A shrub, which grows at the foot of the mountains of Cordova, and Yacanta, and in the province of Tucuman generally, bears a very strong resemblance to the oriental tea plant, and is probably the same. The *coca*, of the district Ciacica, is the genuine *betel* of the East-Indies, and is chewed in the same manner. The plants of the Andes are similar to those mentioned in Peru.

Zoology. The wild horses and cattle of the pampas have already been mentioned; as have the *llama*, the *guanuco*, and the *vicuna* or *paco*. These three produce the bezoar stone. The *puma* has been called the American lion. It is much smaller than the African, and usually of a grey color; but, in Chaco, it has a long red fur. There are two kinds of tigers, the *jaguar* and the *cougar*. The former is of the size of the ounce, with spots similarly shaped and arranged, on a ground of bright yellow, and is very cruel and ferocious. The cougar is of a lively red, smaller, and equally fierce. The *yaguaru* is an amphibious animal, apparently of the tiger kind, and as large as an ass. The *anta* is between the elk and the buffalo, of the size of a large ass, and of remarkable strength. It yields the bezoar stone, and its flesh is preferred to the flesh of cattle, which it resembles. The *peccari*, or Mexican hog, is found in Paraguay. The *tapir* is of the size of a small cow, of a dark brown color, never stirs out but at night, is gregarious, lives chiefly in marshes, and has a skin of so firm a texture, as often to resist a bullet. The *tatus*, or *armadillo*, is very common. The *paca* burrows like a rabbit, is larger than a hare, fat and bulky. Its flesh is excellent food, and the animal is easily domesticated. The *chinna* resembles a little

dog in appearance, and is of the polecat species, as is the *zorillo*, the fur of which is in some request.

The *emu*, the ostrich of South-America, is generally 6 feet high from the head to the feet. Its legs are 3 feet long, and its thighs nearly as thick as those of a man. The feathers are grey upon the back, and white upon the belly. It is fleeter than the swiftest dog. The *condor* has heretofore been mentioned. Carrion vultures are common. The *dispertador* is the *preacher* of Guiana. The *macagua* is a kind of sparrow. The *guicape*, or *ringing bird*, has a note resembling the sound of a bell. Mocking birds are common. The *zumbador* is the night hawk of New-England. Of geese there are 6 varieties. Ducks are also in great abundance and diversity. The other birds are pheasants, partridges, and pigeons, as well as eagles, kites, owls, and falcons.

The fish of the rivers are large, and of numerous varieties. Many of them are excellent food. Turtles are not very common. Seals and sea lions are very numerous on the coast; as are alligators in the rivers.

Innumerable are the tribes of reptiles and insects. Serpents chiefly infest the forests. The *jacumama* is probably inferior in size to no reptile on the globe. Some of them have been found 50 feet long, though they are usually about 30. They are very voracious, have no venom, but conquer their prey by crushing it in their folds. Their breath is said to possess an intoxicating quality. The *sustillo* is a worm of the silkworm species. Numbers of them together form a web of the greatest symmetry and regularity, and of such a texture, consistency, and lustre, as cannot be decomposed or tarnished by any practicable expedient. Within the web each forms a cocoon, of coarse, short silk. The web is the most durable and most beautiful writing paper that is known. Innumerable swarms of bees are found all over the country. The *cochineal* insect is found in Tucuman. The cameleon grows to a great size. Some have been seen 2 feet in length. Glowworms and fire flies, musquitoes, ants, centipedes, scorpions, *blattæ*, wasps, and locusts are extremely numerous. Lizards abound in the marshes

Mineralogy. The following table of the mines of every description, in actual operation in this viceroyalty, is taken from Wilcocke, who obtained it from Helms:

Mining Districts.	Mines.					
	Gold.	Silver.	Copper.	Tin.	Lead.	Total.
Tucuman	2	1	2		2	7
Mendoza		1				1
Atacama	2	2	1		1	6
Caranges		2	1			3
Lipes	2	1	1		1	5
Porco	1	2	1			3
Potosi		1				1
Pacages		1				1
Chucuito		2				2
Puno		1				1
Lampa		2				2
Chicas y Tarija	4	5			1	10
Cochabamba	1					1
Ciacica	2					2
Lavicaja	4					4
Omamyo	4					4
Avangaro	3					3
Carabaya	2	1				3
Chayanza	2	3	1	1	1	8
Misque		1				1
Paria		1		1	1	3
Montevideo	1					1
Total	30	27	7	2	7	73

The mines belong to the person who first discovers them. A spot 80 Spanish yards in length, and 40 in breadth, is measured to him as his own property, and an equal space to the king. The great body of the gold obtained here is washed down by the rivulets. The Indians alone are compelled to work in the mines, and great numbers of them are annually destroyed by the noxious subterranean vapors. They work alternately, night and day, always by candle light, and entirely naked, to prevent them from embezzling the metal. The mines of Porco were those from which the Peruvians drew most of the silver, which embellished their palaces and temples. That of Potosi, the richest that ever was known, except one in Mexico, was discovered by accident. An Indian, named Hualpa, in 1545, pursuing some mountain goats, and climbing up the rocks, laid hold of a small shrub to support himself. The roots gave way, and laid open to his view a mass of pure silver. It was in a mountain of a conical shape, almost 18 miles in circumference, at the base, chiefly composed of a yellow, argillaceous slate, full of veins of ferruginous quartz, and with a soil naturally dry, cold, and barren. Some of the mines in it have been sunk to the depth of 200 fathoms. Altogether about 300 mines are sunk in the mountain. It is now extensively undermined, the rock has been opened at the bottom and galleries dug horizontally to meet the veins of silver. Previous to the year 1638, or in the first 93 years in which they were wrought, the king's fifth of the silver produced and registered from the mines of Potosi, according to the

public accounts, had amounted to $395,619,000 or $4,253,967 per annum, for the average produce. The sums clandestinely taken away, or converted into the utensils and ornaments of churches and convents, cannot be calculated. The produce has gradually decreased. The amount of gold coined at Potosi, in 1790, was $299,846, and of silver $2,983,176.

CHILI.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES. NAME. ORIGINAL POPULATION. HISTORICAL EPOCHS. ANTIQUITIES. RELIGION. GOVERNMENT. POPULATION. ARMY. REVENUE. MANNERS AND CUSTOMS. LANGUAGE. LITERATURE. THE ARTS. UNIVERSITIES. CITIES AND TOWNS. ROADS. MANUFACTURES AND COMMERCE.

Extent. THE northern limit of Chili, on the coast, is Port Juncal, in lat. 25° S. Its southern limit is fort Moulin, in lat. 41 43 S. on the north shore of the archipelago of Chiloe. Its length from N. to S. is 1150 miles. Between the 25th and 32d degrees of latitude it is 245 miles in breadth; from the 32d to the 37th it is 140; and in the broadest part, near the archipelago of Chiloe, it is about 347. It is situated between lon. 70° and 76 40 W.

To this must be added the province of Cuyo, or Cujo, lying east of the Andes, which is 406 miles in length, from E to W. and 402 in breadth, from N. to S. and is situated between lat. 29° and 35° S. containing 163,000 square miles.*

Boundaries. Chili is bounded on the N. by the desert of Atacama, in Buenos Ayres, which separates it from Peru; on the E. by the cordillera of the Andes, which separates it from Buenos Ayres; on the S. by the archipelago of Chiloe; and on the W. by the Pacific ocean.

Name. The name *Chili* is said to be derived from the note of the *thili* or *chili*, a species of thrush, a bird very common in the woods of this country. It had the same name before its subjugation by the Spaniards.

Original Population. It is highly probable that Chili, exclusive of Cujo, was originally peopled by one nation; for all the aborigines spoke the same language, and were of a similar appearance. Some of their traditions represent their ancestors as having come from the north; others from the west. Those on the plains were of the ordinary stature of men; those on the Andes surpassed it. Their

* Molina considers Cujo as a part of Chili. Helms and Whitelocke assign it to Buenos Ayres; but the latter says, that in spiritual concerns it is annexed to Chili, the bishop of Cujo being suffragan to the archbishop of St. Jago.

complexion was of a reddish brown, easily changing to white. One tribe, dwelling in Baroa, near the river Cauten, was absolutely white. They were divided into 15 independent tribes. These, beginning at the north and proceeding towards the south, were the Copiapins, the Coquimbanes, the Quillotanes, the Mapochinians, the Promaucians, the Cures, the Cauques, the Pencones, the Araucanians, the Cunches, the Chilotes, the Chiquilanians, the Pehuenches, and the Huilliches. They were employed chiefly in agriculture. They cultivated maize, pulse of various kinds, the potatoe, the pumpkin and gourd, the guinea pepper, the great strawberry, and a variety of other plants peculiar to Chili. Their domestic animals were the Araucanian camel, the rabbit, and, if tradition is to be credited, the hog and the domestic fowl. They were acquainted with the use of manures. Their agricultural instruments were the spade and the plough, both entirely of wood, and the latter of a very rude, inconvenient construction. The plough was drawn by the camel. From the earth they extracted gold, silver, copper, tin, and lead; and wrought them into various instruments. They made axes, hatchets, and other edged tools, usually of basalt, sometimes of bell metal copper. They were not acquainted with the use of iron. Their cloths were of camel's wool, variously dyed. Their vessels were principally of clay, sometimes of hard wood, and even of marble. They varnished their earthen vessels with a mineral called *colo*. Some of their marble vessels were admirably polished. The walls of their houses were generally of wood, plastered with clay; sometimes of brick. The roofs were covered with rushes. They lived in villages, each of which was governed by an hereditary chief, of limited authority, called *ulmen*, which signifies *a rich man*. They formed aqueducts and canals. Several of these are in perfect preservation; particularly one near St. Jago, which is many miles in extent, and remarkable for its solidity. They were unacquainted with the art of writing. Their paintings were rude and disproportioned. They could express any quantity in numbers; and their advances in astronomy and surgery were singular among savages.

Historical Epochs. We know nothing of the Chilians before the middle of the 15th century. Yupanqui, the inca of Peru, invaded Chili, in 1450, subdued the four northern tribes, and extended his conquests to the river Rapel, in lat. 34° S. The Promaucians, who lived S. of that river, defeated his army with great slaughter, and compelled him to retreat. The conquered tribes paid him tribute; but retained their own form of government.

In 1535 Diego Almagro, a Spaniard, the companion of Pizarro, invaded Chili with 570 of his countrymen and 15,000 Peruvians, by the road which leads over the Andes. Of the Spaniards 150, and 10,000 of the Peruvians perished on the mountains from severity of weather. The remainder, after experiencing a variety of fortune, advanced into the country of the Promaucians, where they met such a reception as to induce them to abandon their enterprize and retreat to Peru. In 1540 Chili was again invaded by the Spaniards, under Pedro de Valdivia, the quartermaster of Pizarro. He met

with various repulses from the northern tribes; but at length penetrated to the river Mapocho, a branch of the Maypo, on which he founded the capital. He afterwards advanced into the country of the Araucanians, and founded therein the cities of Imperial, Villarica, Valdivia, and Angol; but, in December, 1553, his army was routed, and their general taken and afterwards slain. From that period to the year 1773 the Spaniards carried on many wars with that valiant nation, without being able to subdue them. In the last of these, which was concluded by a most terrible battle in 1773, they expended 1,700,000 dollars out of the royal treasury. The Araucanians are now absolutely independent, and keep a resident minister at St. Jago.

In 1587 the English, under sir Thomas Cavendish, landed at the desert port of St. Quintero, but were soon compelled to leave the country.

The Dutch met with similar success in 1638.

Antiquities. In Cujo, between Mendoza and La Punta, on a low range of hills, there is a stone pillar, 150 feet high, and 12 feet in diameter. It is called the Giant, and contains inscriptions resembling Chinese characters.

Near Diamond river, in Cujo, is another stone containing marks, which appear to be cyphers or characters, and the impression of a man's feet, with the figures of several animals. It is called the stone of St. Thomas.

Religion. The religion of the Spaniards and their descendants is Roman Catholic. The only religious paternities in the country are the monks of the order of Mercy, the Dominicans, the Franciscans, the Augustins, and the Hospitallers of St. John of God. All these have a number of convents, and the 3 first form distinct jurisdictions. There are several nunneries in St. Jago and Conception.

Chili is divided into two dioceses, the bishops of which are suffragans to the archbishop of Lima. The diocese of St. Jago extends from Peru to the river Maule, and includes the province of Cujo. The diocese of Conception comprehends the rest of Chili, with the islands, though a great proportion of the inhabitants are Pagans. There is a court of inquisition at St. Jago.

The religious system of the Araucanians is simple, and well adapted to their free mode of thinking and of living. They believe in a Supreme Being, whom they call *Pillan*, which signifies the Supreme Essence. They call him also the Spirit of Heaven, the Great Being, the Thunderer, the Omnipotent, the Eternal, the Infinite, and the Creator of all.

Among their subordinate deities are Epunamun, the god of war, Meulen, the friend of mankind, and Guecubu, the author of all evil. They have an inferior class of benevolent deities, called Ulmenes. They are of both sexes, and are supposed to have the charge of all created things.

The Araucanians have erected neither temples nor idols to any of these deities; nor do they offer them sacrifices, except in case of some severe calamity, when they sacrifice animals and burn tobacco.

They are notwithstanding this, extremely superstitious, believe in omens, in divination by dreams, and the singing and flight of birds, in apparitions and hobgoblins, and in sorcery. They also believe in the immateriality and immortality of the soul, and some of them in a future retribution. Christianity is tolerated in all their provinces. The Romish missionaries are treated kindly; but have met with little success in converting them from Paganism.

Government. Chili is a province of Spain. It is governed by an officer who combines the titles of president, governor, and captain general of the kingdom of Chili. He resides at St. Jago, and is solely dependent on the king, except in case of war, when in certain points he is under the direction of the viceroy of Peru. He commands the army, appoints the quartermaster, the serjeant major, and the commissary, the 3 principal officers of the country; the prefects of the provinces; and the governors of Chiloe, Valdivia, Valparaiso, and Juan Fernandez. He also presides in the tribunal of audience, a court of final appeal in civil cases, below 10,000 dollars, and in all of a criminal nature, and is of acknowledged impartiality in its decisions; in the tribunal of finance; in that of the *Cruzada;* in that of vacant lands; and in that of commerce. The jurisdiction of these courts extends over Chili. They sit in the capital.

The Spanish part of Chili lies principally between the river Biobio, in lat. 36 30, and the confines of Peru, and, including Valdivia, in the country of the Araucanians, is divided into 15 provinces:

Copiapo	St. Jago	Chillan
Coquimbo	Rancagua	Puchacay
Quillota	Calchagua	Huilquilemu
Aconcagua	Maule	Cujo and
Melipilla	Itata	Valdivia

Five of these provinces, Copiapo, Coquimbo, Rancagua, Calchagua, and Maule, reach from the Andes to the ocean. Quillota, Melipilla, Itata, and Puchacay lie on the sea coast. Aconcagua, St. Jago, Chillan, and Huilquilemu are in the vicinity of the Andes. Cujo lies E. of the Andes and S. of Tucuman. Valdivia extends about 36 miles on the coast of Araucania and 18 in the interior.

These provinces are governed by prefects. In the capital of each there is a municipal magistracy, called the cabildo, which has original jurisdiction in causes both of a civil and criminal nature.

The government of the Araucanians is a species of aristocracy. Their country lies between the rivers Biobio and Valdivia, extending from lat. 36 44 to 39 50, S. is 480 miles long, from east to west, and 210 broad, and contains 78,120 square miles. It is divided from north to south, into four uthalmapees or parallel tetrarchies; the maritime comprising five provinces, Arauco, Tucapel, Illicura, Boroa, and Nagtolten; that of the plain country including the provinces of Encol, Puren, Repocura, Maquegua, and Mariquina; the upland containing Marven, Colhue, Chacaico, Quecheregua, and Guanagua; and that of the Andes, comprehending the vallies of those mountains, and inhabited by the Puelches, a hardy race of mountaineers, formerly in alliance with the Araucanians, but now

united with them under the same government. The provinces are subdivided into *regues* or counties. These tetrarchies are independent of each other, but confederated for the public welfare. They are governed each of them by a magistrate called a *toqui*; who possesses but the shadow of sovereign authority. The provinces are governed by officers called *apo-ulmenes*, and the counties by those called *ulmenes*. All these dignities are hereditary in the male line, and proceed in the order of primogeniture. Every important national question is determined by a general diet or council. In time of war, the diet elects the general, and during his continuance in office, the toquis and all other civil officers are divested of their authority. The laws of the Araucanians are few in number. Treason, murder, adultery, robbery, and witchcraft are punished with death. Inferior crimes are punished by retaliation.

Population. Very little is known of the present amount of the population of Chili. In 1778, there were not more than 80,000 white inhabitants, and about 240,000 negroes, and those of a mixed race. Since that period, in consequence of the privileges which commerce has received, they have rapidly increased. It will be observed that the aborigines of Chili are not included in this estimate.

Their numbers, though not accurately known, are doubtless much greater. The whites are composed principally of emigrants from the south of Spain, and their descendants, intermixed with a few French, English, and Italians. The descendants of Europeans, who are called *creoles*, are described as unusually well made, and free from personal deformity; as ardent in their imaginations, quick and penetrating in their discernment, and sagacious in observation; as frank, lively, liberal, intrepid, inconstant, and fond of pleasures. Extemporaneous rhymes are common among the peasantry. Hospitality prevails every where in the cities, and in the country to such a degree, that travellers are entertained freely without any idea of compensation.

The negroes of Chili are treated with a humanity honorable to the government and the inhabitants. Those, who by their industry obtain a sufficient sum of money to purchase a slave, may ransom themselves by paying it to their masters. Great numbers in this way have actually been set free. Those who are ill treated, if they can find any one willing to pay a fair price for them, can compel their masters to dispose of them. Such instances are unusual.

The Araucanians are of the common height and size of men, muscular, robust, well proportioned, martial in their appearance, and very rarely deformed in their persons. Their complexion is a reddish brown. They have round faces, small, expressive eyes, a nose rather flat, a handsome mouth, even and white teeth, muscular, well shaped legs, and small, flat feet. They have scarcely any beard, are rarely grey before sixty or seventy, or bald or wrinkled before eighty. They are courteous, hospitable, faithful, grateful for kindnesses, jealous of their honors, ardent, intrepid, patient of hardships, enthusiastic lovers of liberty, and generous and humane

to the vanquished. The Spaniards, who trade with them, deposite their merchandize in their cabins, certain of being punctually paid at the time agreed on. Their history, from the first incursions of the Spaniards, to the year 1776, furnishes a long list of battles evincive of a valor, which no fatigue could weary, and no danger dismay; a valor not surpassed at Thermopylæ or Marathon. Unhappily they are also addicted to the foibles and vices inseparable from the half savage state, presumption, a haughty contempt for other nations, drunkenness, and debauchery.

Army. In 1792 the number of veteran troops in Chili was 1796 men, consisting of two companies of artillery, nine of horse, and the rest infantry. The regular militia at the same period amounted to 15,856 men. Of these 10,218 were enrolled in the bishopric of St. Jago, and 5,638 in that of Conception. These are the choicest men of the country. Beside these there are a great many city militias commanded by missionaries. The Araucanian army in time of war usually amounts to 5 or 6000, exclusive of a body of reserve.

Revenue. One fifth of the gold yielded by the mines, amounting to 800,000 dollars, is annually paid into the royal treasury. We have no data from which to determine the supplies from the other sources of revenue.

Manners and Customs. The inhabitants are luxurious in their mode of living. The men dress in the French, the women in the Peruvian fashion. The peasantry dress like the Araucanians.

The Araucanian dress is made of wool, and consists of a shirt, a vest, a pair of short, close breeches, and a very convenient cloak, in the form of a scapulary, with an opening in the middle for the head. The lower classes have all these articles of greenish blue, as do the higher except the cloak, which is of various colors. Marriage is with them an amicable kind of rape. The bridegroom, with the assistance of the bride's father, seizes unexpectedly on the bride, and carries her off, while she affects to call for assistance. Polygamy is universal. Their women are scrupulously neat in their houses and persons. Bathing is universally practised both by men and women. They bury their dead the third day after death, covering them with earth or stones in the shape of a pyramid. The corpse, if a man, is surrounded with his arms; if a woman, with a plenty of provisions, and her ornaments.

Language. That of the whites is Spanish.

The natives, except those of Cujo, have but one language throughout the whole country, the islanders and the mountaineers, those in the 24th and those in the 45th degrees of latitude. This, considered as the language of a barbarous nation, is singularly rich, flexible, melodious, and regular. It has also great precision and strength. Its alphabet has all the proper letters of the Latin, together with the *u* of the French, and the *e* mute, the nasal *g*, the *ch* and the *th* of the English. It has no guttural letters and no vocal aspirate. The accent usually falls on the penultimate vowel.

The radicals amount to 1975 in number, and are mainly monosyllables or dissyllables. The nouns have three numbers, but one

gender, and but one declension formed by subjoined prepositions. The adjective is not declined, and is compared like the English. The infinitive of the verb like the Greek ends in *n*. The verb has five moods and nine tenses, two voices and one conjugation in each. Unlike most barbarous languages the Chilian abounds in adverbs, conjunctions, prepositions, and interjections.

Its syntax is like that of the modern European languages, except that it will admit of greater involutions in the arrangement of words.

Literature. The Spaniards in Chili have made but little progress in the cultivation of the sciences. The expence of books and of printing is so great as to discourage literary exertion. Many of the Chilian youth, after finishing their course of academical education, are sent to Lima, to gain a knowledge of the civil and canon laws.

barbarous nations have made as great advances in science as the Araucanians had made at the time of the first Spanish invasion. They divided the year into 12 months of 30 days each, and to these added 5 intercalary days. Their seasons consisted of 3 months each; their day of 12 hours, 6 being assigned to the day and 6 to the night. Those of the day they determined by the height of the sun, those of the night by the position of the stars. They were acquainted with the planets. The fixed stars they divided into constellations.

Their surgeons were skilful in replacing dislocations, in repairing fractures, and in healing wounds and ulcers. Their physicians, however, had very doubtful claims to skill or information.

The Arts. The fine arts are in a very low state in Chili, as are also the mechanical, if we except those of carpentry, and the working of metals. These have been greatly improved by the introduction of some artists from Germany.

Oratory is held in very high estimation among the Araucanians. Their speeches are of the Asiatic cast, highly figurative, allegorical, and elevated, abounding in parables and apologues. They call their poets *gemftin, lords of speech.* Their poetry contains strong and lively images, bold figures, frequent allusions and similes; and possesses in a high degree the power of moving the heart. Allegory may be said to be its essence, and unrestrained enthusiasm its prime characteristic. Their music is extremely harsh and disagreeable. They were originally acquainted with the game of chess, and with a game similar to backgammon.

Universities. There is a royal university at St. Jago.

Cities and Towns. ST. JAGO is the capital. It is situated in lat. 33 31 S. and in lon. 69 35 W. 90 miles from the ocean, and 21 from the Andes. It stands on the southern bank of the Mapocho, an arm of the Maypo, in a delightful plain, of 72 miles in extent. The city is about 10 furlongs in length, from E. to W. and nearly 6 from N. to S. A large suburb lies on the southern side, called St. Isidore, separated from it by a street of 144 feet in width; and the Mapocho separates it from the suburbs of Chimba, Cannadilla, and Renca, on the N. A mountain, called St. Lucia, stands almost con-

tiguous to the houses on the E. The streets, like those of all the other cities and villages of Chili, are straight and intersected at right angles. They are paved, and are 36 feet in breadth. Near the middle of the city is the grand quadrangular piazza, or public square, being 450 feet on each side, with a beautiful fountain of bronze in the centre. On the N. side are the palace of the royal audience, the town house, and the public prison. The W. side is occupied by the cathedral and the archbishop's palace. The S. side consists of shops, each decorated with an arch, and the E. is a row of noblemen's houses. St. Jago contained, in 1776, 46,000 inhabitants, and since that period their number has very much increased. The private houses are handsome and pleasant. They are built of adoves or unburnt bricks, and, on account of earthquakes, are usually of one story. This is true of all the towns in Chili. There are 11 convents, 7 nunneries, 4 parochial churches, 3 hospitals, a royal university, a mint, and barracks for the soldiers in St. Jago. The building of this town commenced on the 24th of February, 1541.

Conception, in the province of Puchacay, is the second city in rank in Chili. It lies in lat. 36 43 S. The city was first built on a beautiful bay, which is 10 miles from N. to S. and 9 from E. to W. The mouth of this bay is divided by the island of Quiriquina, forming 2 entrances; the eastern, which is the safest, 2 miles in breadth, the western about a mile and a half. Both have sufficient depth of water for the largest ships. Conception was founded in 1550. During the two following centuries it was thrice burnt by the Araucanians, and twice destroyed by an earthquake. In 1751 the inhabitants rebuilt it on the north side of the Biobio, about a league from the sea, and, in 1776, it contained 13,000 inhabitants.

Valparaiso, the port of St. Jago, and the most commercial city in Chili, lies in lat. 33 3 S. and in lon. 77 29 W. The harbor is capacious, and so deep that ships of the largest size can lie close to the shore. Its convenience for traffic, and the salubrity of its atmosphere, have rendered it populous. It has a parish church and several convents of monks. It lies in the province of Quiliota.

Valdivia, or Boldivia, in lat. 39 58 S. and lon. 73 20 W. is one of the largest and most populous cities in Chili. Its harbor is the safest, the strongest by nature and art, and the most capacious of any on the western coast of America. The city is 9 miles from the sea, on a river of the same name. The governor of Valdivia is sent from Spain, and is usually a military officer of distinction.

Talca, in lat. 34 47, Copiapo, in lat. 26 50, Coquimbo, in lat. 29 49, Chillan, in lat. 36°, and Aconca gua, in lat. 32 48, are all of them towns of considerable extent and population.

Mendoza, the capital of Cujo, is situated on a plain at the foot of the Andes, in lat. 33 19 S. It contained, in 1776, 6000 inhabitants, several convents, and a parish church. This city carries on a considerable commerce in wine and fruits with Buenos Ayres, and its population is continually increasing from its vicinity to the famous silver mine of Uspallata, which the inhabitants work to great profit.

St. Juan, which is 45 leagues from Mendoza, is also situated near the Andes, in lat. 31 4 S. Its population, in 1776, was 6000. It trades with Buenos Ayres in brandy, fruits, and vicuna skins. The pomegranates in its vicinity are greatly esteemed for their size and sweetness.

Castro and Chacao are situated in the island of Chiloe, and are considerable for their size and commerce. The houses of both are built of wood, as they are throughout the archipelago. The island of Chiloe is populous.

Roads. Two roads lead from Peru to Chili; one by the sea coast, which is destitute of water and provisions, the other by the mountains. This last, for the distance of 120 miles, passes over the Andes.

There are 8 or 9 roads which cross the Andes. The best of these is that which passes from Aconcagua, through Mendoza, to the little town of St. Luis, and thence to Buenos Ayres. The mountains cannot be crossed in less than 8 days, and the road is so steep and narrow, that, in many places, travellers are obliged to quit their mules, the only animals that can be employed, and proceed on foot.

Manufactures and Commerce. The commerce of Chili with Peru employs 23 or 24 ships of from 5 to 600 tons each, and in return for the grain, wine, fruits, provisions, tallow, leather, wood, and copper sent to Peru, it receives iron, cloth, and linen, made at Quito, hats, baize, of which there are also manufactures in Chili, sugar, cacao, sweetmeats, tobacco, oil, earthen ware, and all kinds of European goods.

It receives from Paraguay the Paraguay herb, tobacco, wax, and tallow. The first of these articles is afterwards sent into Peru; the last is used in the manufacture of soap, at Mendoza. In exchange for these commodities, Chili sends to Buenos Ayres linen, woollen stuffs of its own manufacturing, sugar, snuff, wine, and brandy.

In return for European goods Chili sends to Spain, by the way of Buenos Ayres, gold, silver, copper, vicuna wool, and dressed leather. The gold remitted amounts annually to 656,000 dollars;* the silver to 244,000; the copper to 10,000 quintals. The amount of European goods annually sent into Chili is more than a million of dollars.

The domestic commerce of Chili chiefly consists in the provisions sent to Valdivia, which supplies other places with cedar. Chiloe purchases from the other parts brandy, wine, honey, sugar, tobacco, salt, and Guinea pepper; and returns to Valparaiso and Conception several kinds of fine wood, woollen stuffs of the country made up into clothes, together with hams and dried pilchards. Coquimbo, in return for its copper, receives from Valparaiso Cordovan leather and Mendoza soap.

The trade with the Indians is carried on by barter: bits, spurs, and edge tools, toys, and some wine, are exchanged for horned cattle and horses.

* This is beside the gold annually yielded to the royal treasury, by the mines, which amounts to 800,000 dollars.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY. SOIL AND AGRICULTURE. RIVERS. LAKES. SEA. ISLANDS. MOUNTAINS AND VOLCANOES. EARTHQUAKES. BOTANY. ZOOLOGY. MINERALOGY. MINERAL WATERS.

Climate and Seasons. THE climate of Chili is remarkably salubrious. Contagious diseases were not known before the introduction of the small pox by the Spaniards. The fever and ague, the rickets, the black vomit, the leprosy, the hydrophobia, and many of the maladies peculiar to hot countries, are not known. The *lues* was not found there before the arrival of the Spaniards. The heat is very moderate on the coast throughout the year. In the interior it is sometimes excessive.

The seasons in Chili are divided into rainy and dry. The rainy season commences with the southern autumn, i. e. in March or April, and continues till the last of August. From September to March they enjoy an almost uninterrupted succession of fine weather. In the northern provinces, however, it rarely rains, even in the rainy season; in the midland ones, during that period, it usually rains but 3 or 4 days in succession, and the pleasant weather continues 15 or 20. In the southern the rains are much more frequent, and often continue 10 days without intermission. In the islands, which for the most part are covered with wood, rains are very frequent, even in the dry season. Hail storms are not known in Chili. Thunder storms are very rare, and never occur but in places near the Andes. In the provinces on the coast snow is never seen. In the midland districts it falls about once in 5 years; and on the Andes it falls in such quantities from April to November as to render them impassable throughout most of the year. Dews are common during the southern spring, summer, and autumn; fogs in the mornings of the autumn. The N. and N. E. winds bring rain; the S. E. a clear sky. These last prevail during the southern summer. The E. winds rarely prevail, being obstructed by the Andes. Hurricanes are not known.

Face of the Country. The maritime country is intersected by 3 chains of mountains, running parallel to the Andes, between which are numerous vallies, watered by delightful rivers. The midland country is almost flat; a few isolated hills only are to be seen, that diversify and render the appearance of it more pleasing.

Soil and Agriculture. The soil of Chili is wonderfully fertile. The maritime districts, however, are less productive than the midland, and these less than the vallies of the Andes. The maritime districts yield from 40 to 50 fold; the midland from 60 to 70. The soil on the coast is of a brown color, inclining to red; it is brittle and clayey, contains a little marle, and is filled with flint stones, pyrites, shells, and other marine substances. In the interior its co-

lor is blackish; it is brittle, and is often [illegible] with gravel, and marine substances in a state of decomposition.

That portion of the Andes, which is between lat. 24° and 33° is wholly desert. The remainder is inhabited by Patagonians.

The annual increase might be made much greater, if the agriculture were improved. At present the inhabitants merely scratch the land over with a plough, or more frequently with the crooked branch of a tree.

Rivers. Few countries are so well watered as Chili. Lying at the foot of the Andes it naturally receives the waters produced by the melting of that immense body of snow, which annually falls upon those mountains. There are 123 rivers of considerable size in the country, which run westward. Of these 52 fall directly into the ocean. The course of all these is necessarily short, yet 8 of them are navigable at least half their distance for ships of the line. These are the Maule, the Biobio, which is 2 miles in breadth, the Cauten, the Tolten, the Valdivia, the Chaivin, the Bueno, and the Sinfondo, which empties into the archipelago of Chiloe. All these rivers are very rapid in the hilly country; in the maritime districts they flow more slowly. Their beds are very broad, their bottoms generally stony, and the banks low. None of them, however, overflow their banks. There are 3 rivers in Cujo, the St. Juan, the Mendoza, and the Tuniyan. The two first, after a course of about 90 miles, fall into the lakes of Guanasache, and at length, through a channel which receives the Tuniyan, lose themselves in the Pampas. The Mapocho, on which St. Jago is situated, runs five miles under ground.

Lakes. There are 3 salt lakes in Chili, near the coast, each about 20 miles in length; the Bucalemu, the Caguil, and the Bojeruca. Of the fresh water lakes, in the interior, the largest is the Laquen, lying in the country of the Araucanians. This lake is about 80 miles in circumference, and is the source of the Tolten.

Sea. The archipelago of Chiloe, near the southern extremity of Chili, is upwards of 200 miles in length, and about 100 in breadth. It has two communications with the ocean. That N. of the island of Chiloe is only 3 miles wide. The other is 36. The southern extremity of this sea is called the archipelago of Chanes.

Islands. There are 82 islands in the archipelago of Chiloe. Of these 32 are inhabited by Indians or Spaniards. The largest is Chiloe. It is 180 miles in length, from N. to S. Its greatest breadth is 60 miles. Like the other islands it is mountainous, covered with almost impenetrable thickets, and liable to almost incessant rains, except during the southern autumn. The timber found on it is excellent for ship building.

The island of Mocha, in lat. 39° S. is handsome and fertile, and about 70 miles in circumference. The Spaniards have deserted it.

The islands of Juan Fernandez are in lat. 33° S. and between lon. 83° and 84° W. They are 2 in number. The easternmost, called Terra, is 12 miles long and 3 broad, and is 330 miles W. of the coast of Chili. It is mountainous, and produces the sandal wood, the yellow wood, and the *chonta*, a species of palm. It con-

tains an astonishing number of goats, the descendants of those carried thither by its discoverer, Juan Fernandez. The Spaniards, in 1750, made a permanent establishment on the southwestern coast, at a port which they called Juan Fernandez. The president of Chili appoints its governor. The other island, called Massa Fuera, is 3 miles in length, and 400 miles W. of Chili. It is a high, steep mountain, without a harbor, and without an inhabitant. It is full of beautiful trees and streams of good water. The coasts of both these islands abound in fish of an excellent quality.

Mountains and Volcanoes. That part of the Andes which appertains to Chili is about 140 miles in breadth. It consists of a number of mountains, all of a prodigious height, and disposed in parallel ranges. The highest summits are the Manflos, in lat. 28 45, the Tupungato, in 33 24, the Descabezado, in 35°, the Blanquillo, in 35 4, the Longavi, in 35 30, the Chillan, in 36°, and the Coccabado in 43°. Naturalists assert that these mountains are more than 20,000 feet above the level of the ocean.

There are 14 volcanoes in Chili, which are in a constant state of eruption, and a still greater number that discharge smoke only at intervals. They all lie nearly in the middle of the Andes from E. to W. The greatest eruption ever known in Chili was that of the volcano of Peteroa, which lies about 80 miles S. E. of St. Jago. It happened on the 3d of December, 1760. The volcano formed for itself a new crater, and a neighboring mountain was rent asunder for many miles in extent. The explosion accompanying it was heard through a very great extent of country. The lava and ashes filled the neighboring vallies and occasioned a rise in the Tingerica, which continued for many days. The Lontuc, a considerable river, was so much impeded in its course that its waters overflowed the neighboring plains, and formed a lake which still exists.

There are only two volcanoes in the whole of the country, not included in the Andes; an inconsiderable one at the mouth of the Rapel, in lat. 34° which is intermittent; and the great volcano of Villarica, in lat. 39 40, which is in a constant state of eruption. This mountain is entirely isolated, is 16 miles in circumference, and may be seen at the distance of 170 miles.

Earthquakes. Three or four earthquakes occur in Chili annually. They are, however, slight and little notice is taken of them. Between the years 1520 and 1752, only five great earthquakes have occurred in Chili. That on the 15th of March, 1657, destroyed a great part of the capital; that on the 18th of June, 1730, drove the sea against the city of Conception and overthrew its walls; and that on the 26th of May, 1751, completely destroyed that city, which was again inundated by the sea, and levelled with the ground all the fortresses and villages lying between lat. 34° and 40° S. The shocks continued at intervals more than a month. Not an individual human life, however, was lost on this occasion, except seven invalids, who were drowned in Conception. Were it not for its volcanoes Chili would, in all probability, be rendered uninhabitable by the number and violence of its earthquakes.

Botany. Chili is unusually rich in the variety and the vigor of its vegetation. The plains, the vallies, and the mountains are covered with beautiful trees, many of which scarcely ever lose their verdure, and each season produces vegetables suited to the climate in the greatest perfection. It contains about 3000 plants, which are not known in Europe, as well as many which are common to both. Mallows, trefoil, plantain, endive, mint, nettles, lupins, love apples, pimento, celery, cresses, mustard, fennel, the sorrel, the banana, jalap, and mechoacan, grow there naturally; as do maize, of which there are eight varieties; a species of rye, called *magu*, and of barley called *tuca*; beans, of which there are 14 kinds; the sweet potatoe; the gourd, of which there are 26 varieties; the Chili strawberry, which grows to the size of a hen's egg; the *madi*, an excellent substitute for the olive; the sugar cane; the pine apple; the cotton tree; the *relbun*, a species of madder, which yields a dye of a beautiful red; the *contra yerba*, a species of agrimony, which furnishes a yellow; the *panke*, whose root yields a fine black; the culle, a species of sorrel, from which a violet dye is obtained; nearly two hundred valuable medicinal plants; many varieties of reeds and rushes; and many more of climbing plants and flowers.

There are probably more than 100 indigenous shrubs in this country. Among these are the *deu*, the *thilco*, the *uthico*, the *tara*, and the *mayu*, which serve to dye black; the *colliguay*, whose wood when burnt exhales a very agreeable smell, like roses; the *thuraria*, which furnishes an incense not inferior to that of Arabia; the *puya*, whose trunk is used for cork throughout Chili; two kinds of kali, which are found on the shore; two or three species of the Indian fig, whose fruit is very fine and large; seven species of the myrtle, all estimable for their beauty and fragrance; and a great number from time immemorial employed as medicines by the physicians of the country. Among these is the *culen*, a powerful vermifuge; the *guaicuru*, whose root is a specific for all kinds of wounds, as is the balsam of the *jarilla*; the cassia sena, similar to that of the levant; and the palqui, whose expressed juice is the best known remedy for inflammatory fevers.

The forests of Chili are known to contain 97 varieties of trees, of which only 13 shed their leaves. The white and red cedar, the cypress, the pine, and the pellinos, a species of oak, grow in the vallies of the Andes. The red cedar, in the archipelago of Chiloe, grows so large, that a single tree will frequently furnish from six to eight hundred boards of twenty feet in length. In the midland and maritime districts are found the willow; the *molle*, whose berries yield an agreeable red wine; the Peruvian cherry; the wild orange; the *floripondio*, which bears a white flower, 10 inches in length, and three in breadth, of a very powerful ambery fragrance; the white cinnamon; the *carob* tree; the *maqui*, a species of cornel; the *luma* a species of myrtle, whose wood is the best of any known for the use of coach makers, and whose berries furnish a valuable medicinal wine; the mulberry; the tamarind; the *quillai*, whose bark is an excellent substitute for soap; the coconut; the *pehuen*, or *pine of Araucania*, which bears a fruit of the size of a man's head,

in its taste resembling the chesnut; and the *lucuma*, whose fruit resembles the peach.

The pulse, flowers, garden herbs, vines, and fruit trees of Europe flourish as well in Chili, as in their native countries.

There are many varieties of melons of an excellent flavor, which continue from December to May. There are seven species of water melons. The vine produces wonderfully. The wine made on the banks of the Itata, called Conception wine, is not inferior to the best wines of Europe. The muscadel of Chili is said, by Ulloa, to surpass the best muscadel of Spain. In the southern provinces are forests of apple and quince trees from three to four leagues in extent. Pears, cherries, and peaches bear twice a year. The fruit of these last often weigh more than 16 ounces, and have an unusually fine flavor. Oranges, lemons, and citrons grow every where in the open fields. The olive grows very well, particularly in the vicinity of St. Jago. European wheat in its several varieties, rye, barley, hemp, and flax, and every other species of grain, find in Chili a happy soil and a friendly climate.

Zoology. The indigenous quadrupeds of Chili are not so numerous in their varieties, as those of the other South-American provinces. There are but 38 species. The *piagi*, (the Chilian lion,) called also the *puma* in Peru, resembles the lion in its shape, and roaring, but is wholly destitute of a mane. Its length is five feet: its height twenty six and a half inches. Its color is a greyish ash, spotted with yellow. The color under the belly is white. The *guigna* of a fawn color, and the *colocolo* of a white, spotted with black and yellow, are two species of the wild cat, somewhat larger than the domestic cat, which inhabit the forests. There are three species of the camel, resembling the camel of the old world in shape, internal conformation, dispositions, and mode of living; but inferior in size. The first of these, the *vicuna*, is of the size of the goat, covered with a highly valued wool, of the color of dried roses. The *chilihueque*, or Araucanian camel, has a wool of various colors, white, brown, black, and grey. Its length is six feet: its height four. These were the only beasts of burden of the ancient Chilians. The *guanaco* is still larger, and is sometimes about the size of a horse. It is covered with reddish hair on the back, and with whitish under the belly.

The *guemue*, in its appearance, resembles both the horse and the ass. Its hoofs are cloven. The porcupine, found in the northern districts; the *culpeu*, a large brown animal, between the dog and the fox, distinguished for its curiosity and folly; the *cuja*; (a black ferret;) the *quiqui*; (a brown weasel;) the *chingue*; (the North-American polecat;) are all cloven footed and carnivorous.

Chili has three kinds of foxes, the *gusu* or common fox, the *chilla* or field fox, the *payne-gusu* or blue fox; all of the same size as the fox of Europe. It has also the hare, the otter, and the mouse. The hog, called by the inhabitants the *chancu*, and at least two species of dogs are natives of the country.

The house rat was brought to Chili from Spain. The horse, the ass, cattle, the sheep, the goat, the dog, the cat, and the mouse of

Europe, have multiplied exceedingly in this country, and have increased in size.

The Chilian horses are excellent. They are kept in the field throughout the year, and are uncommonly capable of enduring fatigue. They are divided into three kinds, the trotters, the pacers, and the parade horses, which never go out of a foot pace, and sell in Peru for from one to five hundred crowns. The other kinds, in consequence of their numbers, are remarkably cheap.

The ass has run wild in Chili, and, with the mule, is much taller and stronger than the same animals in Europe.

The cattle of the Andes are larger than those in the maritime districts. Some farmers keep 12,000 head. The beef is salted and dried, and, with the tallow, is sent to Peru. The cheese is not inferior to the best cheese of Lodi. The common price of cattle in the interior is 2 dollars.

The sheep breed twice a year, and yield annually from 10 to 15 pounds of wool, as beautiful as that of the best Spanish sheep. Goats live in the mountains, and are valued principally for their skins, which are manufactured into morocco and sent to Peru.

There are two species of bats; the house bat, and the piguchen or mountain bat, of a cinnamon color. Neither of them are vampyres.

The amphibious quadrupeds of Chili are the *lame*, or sea-elephant, 15 feet in circumference, and 22 feet in length; the sea-lion, covered with long yellowish hair; the *urigne*, resembling the common seal, 6 or 8 feet in length, and of various colors; the sea hog; the sea cat; the *coypu*, a water rat of the size of the otter; and the guillino, a species of beaver, distinguished for the fineness of its fur. The two last inhabit the fresh waters.

The birds of Chili are far more numerous. Those that inhabit the land alone amount to 135 species. The number of those of the aquatic fowls is much greater.

Many are merely varieties of those in Europe.

There are six species of geese, sixteen of ducks, two of turtle-doves, three of partridges, four of the woodpecker, five of the heron, and two of the eagle. The varieties of the diver, the plover, the kite, the falcon, the black-bird, the pigeon, the crow, the grouse, the curlew, the wigeon, and the parrot, is not known. The swan and the domestic fowl are like those of Europe.

Of the other birds of Chili the most remarkable are the penguin; the flamingo, distinguished for its size, and the splendor of its plumage; the *thenca* or mockingbird; the *cheuque* or ostrich, about 6 feet in height; the pequen, a species of owl; and the *condor*, the largest bird that can sustain itself in the air. Its wings, when extended, measure 16 feet from one extremity to the other.

The harbors and rivers of Chili swarm with fish. Seventy six kinds are esculent. Two kinds of whales are very common on its shores. One of these animals, driven on shore in the Archipelago of Chones, measured 96 feet in length.

The cod is as numerous on the coast of Juan Fernandez, as on

the banks of Newfoundland. Oysters, crabs, lobsters, and crawfish are very abundant and remarkably fine.

The reptiles of Chili are two species of water turtles, two of frogs, two of toads, two of lizards, and one kind of serpent. None of them are venomous.

The insects of Chili are very numerous. There are many varieties of the bee, the catterpillar, the butterfly, the ant, the waterfly, and the glow worm. There is but one of the grasshopper, which is six inches in length, and not frequent; one of the spider, the body of which is as large as a hen's egg, but its bite is not poisonous; and two of the scorpion, which also are said to be harmless. The *chrysomela*, a little larger than the house fly, is of a golden color. The country people string them together for necklaces. Musquitoes, stinging flies, gnats, and wasps are not known. The bedbug was unknown, till about the year 1730, and is still unknown in the southern provinces. It was brought from Europe.

Mineralogy. Countries rich in the productions of the vegetable kingdom rarely abound in minerals. Chili, however, is a remarkable exception.

Gold is the most abundant metal, and is found in the sands of the plains, in the sands of the brooks and rivers, and to a greater or less degree in almost every mountain and hill. The mines of Copiapo, Guase, Coquimbo, Petorca, Ligua, Tiltil, Putaendo, and Caen, have been wrought ever since the conquest, have yielded a great annual product, and, with those of Alhue, Chibato, and Huilli-Patagua, are the most important in Chili. The gold dug out of the mines, one fifth of which is paid into the royal treasury, amounts to 4,000,000 of dollars annually, beside what is smuggled, which is very considerable. The quantity washed from the sands is also very great, and of a better color and finer standard than the other.

The mine of Uspallata is the richest silver mine in Chili. It lies in lat. 33° S. in the province of Aconcagua, on the eastern side of the Andes. The principal vein is 9 feet in breadth, and its matrix is not less rich than that of Potosi. The mine has been followed 30 leagues, and during the whole distance the ore continued to be equally abundant. It has been wrought since the year 1763. All the silver mines are found in the highest and coldest parts of the Andes, and, on this account, only 3 or 4 are now worked.

Most of the rich copper mines lie N. of the 36th degree of latitude. They are found on the plains as well as on the mountains, and are so abundant that none are wrought but such as yield at least half of the weight of the ore in refined copper. More than 1000 mines were worked in 1787, between the cities of Copiapo and Coquimbo. The old mine of Payen yielded an ore, containing equal portions of copper and gold. The Puelches, in whose country it lies, have prevented the Spaniards from working it. The mine of Curico, in lat. 34 30 is equally rich, and the richest now wrought in Chili. In the hills of Huilquilemu, immediately N. of Araucania, are mines of native brass, of a fine yellow color, and equally malleable with the best artificial brass. More than 120,000 quintals of copper are annually shipped to Spain, and at least 30,000

quintals to Peru, beside a large quantity sent to Buenos Ayres by land, and a still larger quantity made use of in Chili, in the cannon founderies, and for domestic purposes.

Notwithstanding the assertion of De Pauw, iron is very abundant in Chili. Copiapo, Coquimbo, Aconcagua, and Huilquilemu are rich in mines of iron, of the very best quality. To favor the trade of Spain, however, the working of them is prohibited. Black sand, also, is found in great quantities on the banks of the rivers and brooks, as well as on the sea shore.

The mines of lead are numerous and rich, but almost entirely neglected.

Quicksilver is very abundant. The two richest mines are in Copiapo and Coquimbo. This metal is a royal monopoly.

Antimony is found in considerable quantities.

Pyrites of almost every description are scattered over the whole country. Forty leagues S. E. of the harbor of Copiapo are mines of sulphur, so pure as to need no refining. It is, also, found in almost every valley of the Andes. White and red naphtha, petroleum, asphaltos, and two kinds of mineral pitch, are found in many places on the mountains. Jet is very plentiful in Araucania, and pitcoal near the city of Conception, as well as in various other parts of Chili. Ambergris and amber are not unfrequent on the shores. Fossil salt is found in great quantities in the Andes of Coquimbo and Copiapo. In a valley of the Andes, in lat. 34 40, lie the salt springs of Pehuenches. They are 11 in number. The water, as it overflows, becomes crystallized into pure salt, as white as snow. The valley is 15 miles in circumference, and is covered to the depth of 6 feet, with a crust of salt, which the inhabitants use for all domestic purposes. Most of the midland districts are supplied from this source. The maritime districts are supplied with sea salt, which is manufactured in great quantities on the shores.

Sal ammoniac, saltpetre, and alum are abundant.

Slate, talc, asbestos, and mica; limestone, marble, calcareous spars, and gypsum; the whetstone, the grindstone, the freestone, flint, quartz, rock crystal, jasper, the amethyst, the turquoise, porphyry, and granite are among the common stones of Chili. The topaz and the emerald have been found there.

Mineral Waters. The most celebrated mineral springs are those of Peldehues and Cauquenes. The first is not far from St. Jago. It consists of two springs, one hot, the other cold. The hot spring is clear, inodorous, oily to the touch, and contains soda and a little fixed air. The cold spring contains iron, Glauber's salt, and a yellowish ochre. The spring of Cauquenes is near the source of the Caciapoal, and is the resort of great numbers of the sick and the fashionable during the summer. Mineral waters are very common in every part of the country.

PATAGONIA.

EXTENT. BOUNDARIES. RIVERS. NATIVE TRIBES.

Extent. CAPE LOBOS, in lat. 37 30 S. is the most northern limit on the Atlantic. On the Pacific, Patagonia includes all the continent S. of fort Maullin in lat. 41 43. On the E. of the Andes of Chili, however, it extends northward, as far as the sources of the Colorado and Negro, near lat. 35° S. Its greatest length, from N. to S. is not less than 1300 miles. On the Atlantic, it has about 1100 miles of sea coast, and on the Pacific, 800. The breadth, from cape Lobos to the Andes, is 700 miles; but the average breadth does not exceed 450. Almost the whole of the immense plains, called the *Pampas*, described under the article Buenos Ayres, are still in possession of the natives; as are all the Andes S. of Cuyo or Cujo.

Boundaries. On the N. lies Buenos Ayres; on the E. the Atlantic; on the S. the straits of Magellan; and on the W. the Pacific and Araucania.

Rivers. The large rivers of this country all run from the Andes eastward. The first of any considerable size, S. of the *Saladillo*, already mentioned, as a river of Buenos Ayres, is the *Hueyque Leuvu*, an Indian name, signifying the *river of willows*. The Spaniards have improperly given the name of *Rio de los Sauces*, or *river of willows*, to the *Rio Negro*, farther south.

The *Hueyque* is formed in the plains between the mountains of Achala and Yacanto. It is of considerable size, is in general shallow and fordable, but is sometimes greatly swelled by the floods. Its course is S. and S. E. through the Pampas, to the ocean; into which it falls by two openings.

The *Colorado* is the largest river, except the Negro, in Patagonia. It is formed by numerous streams, which issue from the E. side of the Andes, almost as far N. as the volcano of Chuapa. Taking a S. direction, it passes with a deep and rapid current, within about 30 miles of San Juan de Frontera. After receiving a small river, which washes that town, it is swallowed up in the lakes of Guanacache; which also receive the *Tanuya*, a pretty large river from the S.; a branch of which, the *Portillo*, runs by Mendoza. The country S. E. of these lakes is an extensive marsh, in which the streams are for a while lost. But they break out, a few leagues distant, in an immense number of rivulets; which, uniting, form a large river, called by the Picunches, *Huaranca Leuvre*, or *a thousand rivers*; by the Pehuenches, *Cum Leuvre*, or *Red river*; and by the Spaniards, *Colorado*. Its course is now S. E. and continues through the marshy country; which is not less than 170 miles in breadth, and is completely overflowed in the rainy season. It preserves this course till it approaches within 30 or 40 miles of the Negro, when it turns due E. for 150 miles. It then turns again to the S. E. and continues that direction to the sea; falling into Bahia Anegada, which is very shallow, and full of sandbanks. In this

bay a Spanish vessel was lost early in the last century. The crew saved themselves in their boats; and proceeding in them up the river, at length arrived at Mendoza.

Rio Negro, the *Cusu Leuvre*, or *Black river* of the Indians, issues also from the eastern side of the Cordillera, N. of the latitude of Valdivia. Its course is first S. then E. and N. of E. and afterwards S. E. to the ocean. The *Oglen*, its first considerable tributary from the N. is the outlet of *Huechun*, *Lavguen*, or *lake of the boundary*, a lake 36 miles long and nearly circular. The *Sanquel*, its largest tributary on the same side, issues from the Andes, and receiving the *Lolgan*, runs about 300 miles in a S. E. direction, and joins the Negro in a broad and rapid stream. On the S. the Negro receives the *Lime Leuvre* and the *Machi Leuvre*. The *Lime*, called by the Spaniards the *Desaguedaro*, or *drain of Nahuelhuaupi*, is merely the outlet of the waters of that lake. The lake itself is formed by the waters of the Cordillera, and is near 100 miles in length. It takes its name from an island inclosed in it, called the *island of tigers*: *Nahuel* denoting a tiger, and *Huaipi* an island. It is situated in a great plain, surrounded by mountains. The *Lime*, runs from it northward about 90 miles, through vales and marshes, till it enters the Negro a little below the *Oglen*. The *Machi* comes from the country of the *Huilliches*, and runs nearly due north to the Negro, emptying at no great distance below the *Lime*. Hence the Negro bends its course to the E. making a small bend northward, where it approaches the Colorado. Thence it runs S. E. to the bay of St. Matthew. Some distance before it terminates in the sea, the river makes a large sweep, forming a peninsula 18 miles in diameter, the isthmus of which is only 3 miles across. This peninsula is called *Tehuel malal*, or *the inclosure of the Tehuelhets*. The Negro, with its branches, serves as a drain to the Andes, for upwards of 600 miles. It is a broad, deep, and rapid river, liable to sudden and violent inundations.

Of the rivers farther S. we have no accurate accounts.

Native Tribes. The aborigines distinguish the various tribes by two denominations, MOLUCHES, or *warriors*; and PUELCHES, or *eastern people*.

The MOLUCHES occupy the country W. of the Andes, and S. of the bay of Chiloe; the Andes themselves; and the country bordering on them eastward from the province of Cuyo, to the straits of Magellan. They compose three distinct tribes. The *Picunches*, a name derived from *picun*, north, and *che*, men or people, border northward on Cuyo. The *Pehuenches*, from *pehuen*, a pine tree, lie immediately S. of them. These two tribes were formerly very numerous; but are now scarcely able to muster 4000 fighting men. Wars, and the ravages of the small pox, have tended to the diminution of their numbers; but the Spanish brandy, and their own *chica*, have been far more destructive. The *Huilliches*, or southern *Moluches*, reach from the latitude of Valdivia to the end of the continent, occupying the Andes and the country W. of them. They are very numerous and powerful.

The PUELCHES reach from the territories of the Moluches to

the Atlantic, and constitute four tribes. Those to the N. are called *Taluhets*; to the W. and S. of these are the *Diuihets*. The Spaniards call both of these the *Pampas*, because they claim the immense plains of that name. They are of a roving disposition, and repeatedly attack and harass the Spanish settlements, as well as the travellers who pass from Chili to Buenos Ayres over the plains which they inhabit. They hunt both the wild horses and cattle for food, and are in general a tall and stout race of people. It was in a treaty with these tribes, that cape Lobos was made the southern boundary of the Spaniards on the coast. The *Chechehets* are to the S. E. of the Diuihets; and S. of these last are the *Tehuelhets*. The Chechehets are not numerous, having been chiefly destroyed by the small pox.

"The Tehuelhets are the nation known in Europe by the appellation of Patagons; and are split into many subdivisions. A principal tribe have a town called Huechin, on the banks of the Negro, the caciques of which have great influence, if not commensurate authority, over almost all the Chechehets and Tehuelhets, and who, when they declare war, are also joined by the Huilliches, and by those Pehuenches, who live most to the south. The Tehuelhets are a restless and roving people, whom neither extreme old age, nor blindness nor disease, prevent from indulging in their wandering inclinations. They are very strong, well made, and not so tawny as the other Indians. They are courteous, obliging, and goodnatured, but very inconstant. They are warlike and intrepid, and the most numerous of all the Indian nations in these parts. They are the enemies of the Moluches, and very much feared by them. They speak a different language from the other Puelches and the Moluches. As to their stature, they are a large race, and several of them are seven feet and a half in height, but these, it is asserted, are not a distinct race, as others in the same family do not exceed six feet.

We cannot, without a charge of unreasonable scepticism, deny all credence to the accounts that have been transmitted to us, of a race of men of extraordinary stature in this portion of the globe. Inscrutable as are the ways of Providence, and limited as is the progress hitherto made in the natural philosophy of the globe we inhabit, no bounds can be assigned to the endless variety of phenomena, which successively appear or are discovered. The man, who can assign a reason why an Irish giant, or a Polish dwarf, should be born amidst nations of ordinary stature, will have solved every problem, as to the existence either of gigantic Patagonians or of pigmy Esquimaux. Undoubtedly, however, the most explicit and unexceptionable evidence is requisite, in order to establish a fact repugnant to those general principles and laws, which seem to affect the human frame in every other instance. But by an impartial revision of the various authorities, it appears, as an established fact, that the usual stature of one or more tribes of Indians is from six and a half to seven and a half feet. A majority of the Indian nations of South-America are of a large size, and extraordinary stature, increasing in bulk and height

towards the south; and the Tehuelhets, none of whom are under 6 feet, and some approaching to 8, a wandering nation, inhabiting an extensive country, and well provided with horses, may be looked on as the Patagonians of the Straits of Magellan, incidental visitors, but not permanent inhabitants, of the shores both to the south and to the east. The comparative safety and facility of the passage round Cape Horn, has prevented any recent navigation of the Straits, and the accounts of the early navigators must stand or fall by their own intrinsic merits, till the interior of the country is more fully explored, or till some object of commercial attraction, or of political importance, arises to induce navigators to frequent the Straits of Magellan again. In the meantime the intermediate system, to which a preference has been given above, acquires confirmation from the most recent visit to those regions of which any account has been made public, namely, that of a Spanish vessel, despatched by the court of Spain, to survey the Straits in 1785 and 1786.*

At their first interview with the Patagonians, one of them, who called himself Francisco Xavier, who had had intercourse with the Spanish colonists of Rio de la Plata, and spoke a little Spanish, was measured, and found to be 6 feet and 11½ inches in height. The tribe they then met with appeared to consist of between 4 and 500 men and children, for they saw no women. They were all on horseback; and had many dogs. The indifference with which they left their horses, their arms, and their little effects, unguarded, or in the care of each other, was considered as a proof of the good faith that existed amongst themselves; and though it was evident that their communication with the Spanish settlements was neither difficult nor unfrequent, they did not seem to have acquired the bad habits which an intercourse with European colonists too often gives rise to amongst savages. Xavier had a poncho, which was conjectured to be of Spanish manufacture, with the addition of a cloak of guanaco-skins, sewn together, and exactly similar to those that are brought for sale by the Indians to Buenos Ayres. He had also a cutlass or macheat, inscribed in Spanish *por el rey Carlos III.* Several of the others had the noose, or lace and balls,† weapons well known in that province. They are described as extremely friendly and familiar, eating, drinking, and smoking tobacco, with their visitors with the greatest cordiality.

They met with another body of Patagonians, all also mounted on horses and followed by many dogs, and amongst whom there were several women; but they also met, towards the centre of the Straits

* *Relacion del ultimo viage al estrecho de Magallanes de la fregatta de S. M. Santa Maria dela Cabeza. Madrid*, 1788.

† The balls, which are of heavy stone, are connected by a leathern thong of suitable length; they are three in number, two of them three inches, and the other two inches in diameter. The hunter takes the small ball in his right hand, and swings the other two round his head till he has taken a proper aim, and they have acquired sufficient velocity, he then throws them at the legs of the animal he is pursuing, two of which they immediately entangle by their rotatory motion, and bind them close together, after which the capture is easy; but the danger of laming the animal is great, and they are seldom therefore used to catch horses.

and particularly at Port Famine, with those miserable, shivering, and naked savages, who have been described by the name of Pecherais, from a word in their language which they are constantly repeating, and who do not at all exceed the usual stature of man. The moral and physical differences between these two races of men is striking, but need not here form any particular object of comparison, the Pecherais being far distant from the province of Buenos Ayres, whilst, on the other hand, the Patagonians, from their migratory disposition, and abundance of horses, are occasional visitors of the vicinity of Buenos Ayres, of the Chilian frontier, and of the Straits of Magellan.

From the actual and exact measurement of the Spanish officers of the above mentioned expedition, the tallest of the Patagonians they met with did not exceed 7 feet and 1 inch and $\frac{1}{4}$, but their general height was from $6\frac{1}{2}$ to 7 feet. All of them were robust and muscular; of no disagreeable countenance, although their heads were rather large in proportion, their eyes were lively, and they had teeth extremely white. A few of them were observed to have beards, but they were neither large nor bushy. Upon the whole, the appearance, dress, and character of these Patagonians is described as very similar to the Tehuelhets of the Negro; so much so as to leave no doubt of their being the same people.*

The Moluches, as well as all the Puelches, believe in two superior principles, the one good and the other evil. The good power is called by the Moluches *Toquichen*, or governor of men; by the Taluhets and Diuihets, *Soychu*, signifying the being who presides in the land of strong drink; and the Tehuelhets call him *Guayavacunnee*, or the lord of the dead. But this power or principle is subdivided into a multiplicity of deities, each of whom is supposed to preside over one particular cast or family of Indians, of whom he is supposed to have been the creator. They imagine that each of them has a separate habitation, in vast caverns under the earth, beneath some lake, hill, or forest, and that when an Indian dies, his soul goes to live with the deity of his particular family, there to enjoy the happiness of being eternally drunk. They believe that their good deities made the world, and that they first created the Indians in their caves, gave them the lance, the bow and arrows, to fight and hunt with, and then turned them out to shift for themselves. They imagine that the deities of the Spaniards did the same by them, but that instead of lances, bows, &c. they gave them guns and swords. They suppose that when the beasts, birds, and lesser animals were created, those of the more nimble kind came immediately out of their caves, but that the bulls and cows being the last, the Indians were so frightened at the sight of their horns, that they stopped up the entrance of their caves with great stones; which is the reason

* A passage occurs in the Spanish narrative of this voyage, which indicates the establishment of some new settlements by the Spaniards in the southern part of the continent, with which we are wholly unacquainted. From various circumstances, a constant intercourse was thought to exist between these Indians and the Spanish colonies of Buenos Ayres and Chili; *and more particularly with those lately formed on the coast of Patagonia.*

they assign why they had no horned cattle in their country, till the Spaniards brought them over, who more wisely, had let them come out of the caves.

From the evil principle it is, they say, that the great number of demons, which they suppose are constantly wandering about the earth, proceed. To these they attribute every evil that befals either man or beast. Each of their wizards is supposed to have two of these demons in constant attendance, who enable them to foretel future events, to discover what is passing at a great distance, and to cure the sick by combating or appeasing the other demons, who torment them. They believe that the souls of their wizards after death become demons. Their worship is entirely directed to the evil being, except in some particular ceremonies made use of in reverence of the dead.

The profession of their wizards is very dangerous, notwithstanding the respect that is sometimes paid to them: for it often happens, when an Indian chief dies, that some of the wizards are killed, especially if they had any dispute with the deceased just before his death. In cases also of epidemic disorders, when great numbers are carried off, the wizards often suffer. On account of the small pox, which had almost entirely destroyed the Chechehets, the cacique Cangapol ordered all the wizards to be put to death, to try if by that means the distemper, which was attributed to the wizards and their demons, would cease. The wizards are of both sexes, but all go dressed in female apparel. They are generally chosen to this office when they are children, and a preference is always shewn to such as discover an effeminate disposition. They are clothed very early in the dress of, and presented with the drum and rattles belonging to, the profession they are to follow.

The burials of their dead, and the superstitious reverence paid to their memory, are attended with great ceremony. When an Indian dies, a woman is immediately chosen to make a skeleton of his body; the entrails and flesh are burned, and the bones are buried till the remaining flesh is wholly consumed, or till they are removed (which must be within a year after the interment, but is sometimes within 2 months) to the proper burial place of their ancestors. This custom is strictly observed by the Moluches, Taluhets, and Diuihets; but the Chechehets and Tehuelhets, or Patagonians, place the bones on high, upon canes and twigs woven together, to dry and whiten in the sun and rain. During the time that the ceremony of making the skeleton lasts, some of the Indians, covered with long mantles of skin, and their faces blackened with soot, walk round the tent with long poles or lances, singing in a mournful tone of voice, and striking the ground to frighten away the demons; whilst others go to visit and console the widow or widows and other relations of the deceased. The horses of the dead are also immediately killed, that they may have the means of riding in the *Alhue Mapu*, or country of the dead; a few only being reserved to grace the last funeral pomp, and to carry the relics to their proper sepulchres.

Widows are obliged to mourn and fast for a whole year after the death of their husbands. This consists in keeping themselves

close shut up in their tents, without having communication with any one, or stirring out but for the common necessaries of life, in not washing their faces or hands; in being blackened with soot; and in abstaining from the flesh of horses, horned cattle, ostriches, and guanacoes. They are forbidden to marry again during the year of mourning; and if a widow be discovered to have had any connection with a man during that time, the relations of her dead husband may kill them both, unless it appears that she has been violated. But the men are not obliged to any such mourning on the death of their wives.

The Moluches, Taluhets, and Diulhets, bury theirdead in large square pits about a fathom deep. The bones are put together, and each tied in its proper place; the skeleton is clothed in the best robes that can be got, and adorned with beads, feathers, &c. all of which they cleanse or change once a year. They are placed in a row, sitting with the sword, lance, bow and arrows, bowls, and whatever else the deceased had whilst alive. Their pits are covered over with trunks of trees and canes or twigs woven together, upon which earth is put. An old woman is chosen out of each petty community to take care of these graves, and is held in great veneration on account of her employment. Her office is to open these dreary habitations every year, and to clothe and clean the skeletons. These burial places are, in general, not far from their habitations, and around them are placed the bodies of their dead horses, raised upon their feet, and supported by stakes. But the Tehuelhets, after having dried the bones of their dead, carry them to a great distance from their habitations into the desert by the sea coast. When they are moved, they are packed up together in a hide, and placed upon one of the favorite horses of the deceased, kept alive for that purpose, and adorned with mantles, feathers, &c. The distance to which these bones are thus carried is sometimes 6 or 700 miles. The skeletons, when put together and adorned in the manner just described, are then set in order above ground, under a hut or tent erected for that purpose, with the skeletons of their dead horses placed around them.

Their marriages are made by sale, the husband buying his wife of her nearest relations. They often agree for their wives, and pay part of the price of them, when they are very young, and many years before they are marriageable. Every Indian may have as many wives as he can buy or keep, yet few have more than one, except the caciques. Widows and orphans are at their own disposal, and may accept of whom they please; the others are obliged to abide by the sale. Little or no ceremony is used in their marriages. The husband takes away his wife from her parents as his own property; and the following morning she is visited by her relations before the time of rising, when being found in bed together, the marriage is considered as concluded. But as many of these marriages are compulsive on the side of the woman, they are frequently frustrated. The contumacy of the woman sometimes tires out the patience of the man, who then turns her away, or sells her to the person on whom she has fixed her affections, but seldom beats her, or

uses her ill. The women, when they have once accepted their husbands, are in general very faithful and laborious. Indeed their lives are but one continued scene of labor, and they are forced to submit to every species of drudgery. No excuse of sickness or pregnancy will relieve them from the appointed labor; and so rigidly are they obliged to perform their duty, that their husbands can not help them on any occasion, or in the greatest distress, without incurring the highest ignominy. Although their marriages are at will, yet, when once the parties are agreed, and have children, they seldom forsake each other, even in extreme age. The husband protects his wife from all injuries, and always takes her part, even if she is in the wrong, which occasions frequent quarrels and bloodshed; but this partiality does not prevent him from reprimanding her in private for engaging him in these disputes. He seldom beats her; and if he catches her in any criminal intercourse, he lays all the blame on the gallant, whom he corrects with great severity, unless he atones for the injury by some valuable present.

The Moluches maintain some flocks of sheep for their wool, and sow a small quantity of corn; but the Puelches depend entirely on the chase, for which purpose they keep great numbers of dogs. The dress of these Indians is remarkable, and mostly alike. The men wear their hair tied up behind, and bound many times about the head with a long fillet of dyed woollen stuff curiously wrought. They wear mantles of skins sewed together, sometimes of the skins of young colts, which are the least esteemed; sometimes of otter or other skins; mostly, however, of guanaco skins, which are in great estimation on account of the warmth and fineness of the wool, and their long duration; but those which are in the highest estimation of all are made with the skins of small foxes, which are exceedingly soft and beautiful; they are of a mottled gray color, but are not so durable as those of the guanaco. They also make or weave (the Tehuelhets and Chechehets excepted) fine mantles of woollen yarn, beautifully dyed with many colors, which reach from the shoulders to the calf of the leg. They have another of the same kind round the waist, and, besides these, a small three cornered leather apron. They likewise make mantles of red stuffs, which they buy of the Spaniards, of whom they also purchase hats, which they are fond of wearing, especially on horseback. They adorn themselves with sky colored beads round their necks and wrists. They also paint their faces, sometimes red and sometimes black. When on horseback they use the poncho, which they adorn with a great variety of figures. Their defensive arms consist of a helmet, made like a broad brimmed hat, of a bull's hide sewed double, and of a wide tunic, shaped and put on like a shirt, with narrow, short sleeves, made of 3 or 4 folds of the anta's skin: it is very heavy, and strong enough to resist either arrows or lances. On foot they sometimes use a large, unwieldy, square target of bull's hide. Their offensive arms are a short bow and arrows pointed with bone, and a lance 4 or 5 yards in length, pointed with iron, and made of a solid cane that grows near the cordilleras, with many joints about 4 or 5 inches from one another. They have also swords when they

can get them from the Spaniards; but they are in general very scarce. The balls, mentioned before, form a weapon which they manage with admirable dexterity. They are generally made of the heaviest stones they can get, made round by friction. They are swung with unerring aim, and thrown with such dexterity as to fasten a man to his horse, and to entangle the feet of any animal.

The women wear nothing on the head, but have their long hair plaited in two large tresses, which hang down on each side. They have ear rings or pendants of square, brass plates, and strings of sky blue beads round their necks, arms, and ancles. They have the same kind of mantle as the men, which they fasten before with a brass skewer or pin. They have also a short apron tied about the middle under the mantle, and reaches a little below the knee. This is woven of dyed yarn, and striped longitudinally with different colors. When they ride, they use a straw hat, of a broad, low, conical figure. Both sexes wear boots or stockings made of the skins of horses legs, which, when flayed, are dried, softened with grease, made pliant by wringing and put on without either shaping or sewing."*

AMERICAN ISLANDS.

IN the progress of our work we have had occasion to give a particular account of almost all the islands of any consequence connected with the Western Continent. Spitzbergen, the Fox, and Aleutian islands have been described in the geography of Russian America; Iceland under that of Danish America; Newfoundland, Cape Breton, St. John's, Anticosti, and several small islands under that of British North-America; the West-Indies under a separate head; and Juan Fernandez and the islands in the archipelago of Chiloe under that of Chili. The Bermudas, the Falkland islands, Terra del Fuego, and Southern Georgia remain to be described.

BERMUDAS, OR SOMERS' ISLANDS.

These are a cluster of small and rocky islands forming the figure of a shepherd's crook, about 400 in number. They lie in the Atlantic, in lat. 32 20 N. and lon. 64 30 W. about 200 leagues E. of Carolina. The great body of them are mere islets and rocks, of too little consequence to have received a name. *Bermuda*, the largest, resembles a hook, the great sound opening to the N. It is 40 miles long and 2 broad. East of this lies *St. George's*, and contiguous to this *St. David's*. Another is called *Somerset*. Only these four have received a name.

The groupe derived its first name from John Bermudas, a Spaniard, who discovered it in 1527; and their second from sir George Somers, who was shipwrecked on the rocks in his passage to Virginia, in 1609, and lived there 9 months. By a mistake in the

* Wilcocke's History of Buenos Ayres, page 438—453.

sound of this latter name they have often been called *Summer islands.*

By the third charter of Virginia, granted in 1612, all islands within 300 leagues of the coast were annexed to that province. The Virginia company sold them to 120 of its own members, who sent out, the same year, a colony of 60 persons, and another of 540, in 1613.

The religion is that of the church of England. There are 9 Episcopal churches, under the care of 3 clergymen, and 1 Presbyterian church. The government is vested in a governor, and a council, appointed by the crown; and in a house of assembly, chosen by the people. The number of whites, in 1624, was about 3000. Edwards states the population at 5462 whites and 4919 blacks, total 10,381. The women are said to be handsome, and both sexes are fond of dress. The inhabitants are generally seafaring men, and the negroes are expert mariners. In the American war the Bermudians fitted out 15 or 20 privateers to prey on the American commerce. The negroes are treated with kindness. The black privateer'smen, who were taken prisoners during that war, when discharged, voluntarily returned to their masters. Great numbers of the inhabitants go every spring to Turk's islands to rake salt, and some of them are employed in transporting the salt to the American market. The islands are frequented by whale fishers. The houses throughout the islands are built of a soft stone, which is sawn like timber, and is much used in the West-Indies for filtering water.

St. George's, the capital, in the island of the same name, contains about 500 houses.

The islands contain from 12,000 to 13,000 acres of very poor land, of which 9 parts in 10 are either uncultivated or reserved in woods for a supply of timber towards building small ships, sloops, and shallops for sale, this being one principal occupation of the inhabitants. The vessels which they furnish, being built of cedar, are light, buoyant, and unexpensive. Maize and vegetables were alone cultivated, till 1785, when cotton was introduced. About 200 acres are now devoted to its culture.

TERRA DEL FUEGO.

Terra del Fuego, or the *land of fire*, is a name given to a large island, which is separated from the southern extremity of the American continent by the straits of Magellan. These straits are about 350 miles in length, from cape Virgin, in the Atlantic, to cape Desire, in the Pacific; and in some places several leagues over, and in others not half a league. They consist of two arms, one passing N. E. to the Atlantic, the other N. W. to the Pacific; and were discovered by Ferdinando Magalhaens, or Magellan, a Portuguese, in 1520. In these straits there are many safe harbors and large bays, with narrow entrances, encompassed with high mountains, sheltering them from every wind.

The face of the country in the island is represented as dreary and inhospitable. The inhabitants are said to be naturally as fair as

Europeans. They are of a middle stature, have broad, flat faces, high cheek bones, and flat noses. Those on the S. side are said to be uncivilized, treacherous, and barbarous; those on the N. are simple, affable, and harmless. They cover their bodies in winter with the skins of wild animals. Their tents are made of poles, disposed in a conical form and covered with skins or the bark of trees. An island lying E. of Terra del Fuego, and called *Statenland*, is separated from it by the straits of Le Maire. It is 12 leagues in length and 5 in breadth; and is extremely rude, barren, and desolate. On this the English have a small settlement.

FALKLAND ISLANDS.

These consist of two large islands, with a great number of small ones surrounding them, and lie between lat. 51 6 and 52 30 S. and between lon. 56 30 and 62 16 W. They were discovered by Davis, in 1592. In 1764 commodore Byron was despatched by the British government to take possession of them and plant a colony at a place called *Port Egmont*. They consist chiefly of mountains and bogs, have an inhospitable climate, and can never be of any value unless as a watering place for ships bound to the Pacific ocean. *Falkland's Sound* is a name given to the strait, which separates the two largest islands.

SOUTHERN GEORGIA.

This island lies in lat. 54 30 S. and lon. 37° W. and is about 100 miles long and from 3 to 15 broad. It is a dismal region, abounding in bays and harbors, and, a great part of the year, covered with ice. This island, or rather cluster of islands, was discovered by a Frenchman, and afterwards surveyed by capt. Cook, who found here abundance of sea elephants and sea bears or fur seals. For some years after, the English visited these islands for the purpose of taking these elephants for their oil, from 3000 to 4000 tons of which they have annually procured, and at some seasons sold for 40*l.* sterling a ton. At the same time they caught from 100,000 to 200,000 seals, whose skins sold from 1 to 2 dollars each. The Americans, chiefly from New-England, about the year 1800, perhaps a little earlier, visited these islands with 9 vessels, and the first year caught not less than 151,000 seals. This cluster of islands consists of high peaks, rising above the clouds, in the form of sugar loaves. It is barren of all vegetable productions. The rocks are composed of a kind of slate, of a bluish grey color, disposed in horizontal beds.*

GALLAPAGOS.

These lie in the Pacific ocean, between lat. 3° N. and 4° S. and between lon. 83 40 and 89 30 W. The 3 largest are Norfolk I. in the E. Albemarle I. in the W. and Wenmore I. in the N. W. They are very numerous. Only 9 are of any considerable size. Some of these are 7 or 8 leagues long and 3 or 4 broad. They are well wooded and abound in fine turtles.

* Drigg's MS.

CENSUS OF THE UNITED STATES,

ABRIDGED.

DISTRICT OF MAINE.

Counties.	Towns.	No. inh.
York.	Kittery	2,019
	Elliot	1,650
	York	3,046
	Wells	4,489
	Arundel	2,371
	Biddeford	1,563
	Lebanon	1,938
	Berwick	4,455
	Shapliegh	2,362
	Newfield	815
	Sanford	1,492
	Alfred	1,106
	Lyman	1,248
	Saco	2,492
	Parsonsfield	1,763
	Limeric	1,177
	Cornish	971
	Waterborough	1,395
	Philipsburgh	1,427
	Buxton	2,324
	Limington	1,774
		41,877
Cumberland.	Portland	7,169
	Falmouth	4,105
	North-Yarmouth	3,295
	Freeport	2,184
	Pegypscot	805
	Brunswick	2,632
	Pownal	872
	Durham	1,772
	Harpswell	1,190
	Scarborough	2,094
	Cape Elizabeth	1,415
	Gorham	2,632
	Baldwin	546
	Standish	1,378
	Gray	1,510
	Windham	1,613
	New-Gloucester	1,649
	Minot	2,020
	Poland	850
	Bridgeton	882
	Raymond	826

Counties.	Towns.	No. inh.
	Thomson pond, and Shaker settlement	191
	Harrison	439
	Otisfield	912
		42,831
Lincoln.	Wiscasset	2,083
	Woolwich	1,050
	Dresden	1,096
	Bath	2,491
	Georgetown	1,998
	Bowdoinham	1,412
	Litchfield	1,847
	Topsham	1,271
	Lisbon	1,614
	Lewiston	1,033
	Bowdoin	1,649
	Wales	471
	Warren	1,443
	Cushing	583
	Friendship	480
	Waldoborough	2,160
	Thomaston	2,100
	St. George	1,168
	Camden	1,607
	Union	1,266
	Hope	787
	Appleton Ridge	316
	Boothbay	1,582
	Bristol	2,753
	Edgcomb	1,288
	Nobleborough	1,206
	New-Milford	797
	New-Castle	1,232
	Jefferson	1,205
	Whitefield	995
	Montville	864
	Palermo	761
	Patricktown	138
	Collemore's Ridge	46
	Medomac	121
	Montville Plantation	130
		42,992

Counties.	Towns.	No. inh.
Hancock.	Bangor	850
	Orono	351
	Hampden	1,279
	Frankfort	1,493
	Dixmont	337
	Prospect	1,300
	Belfast	1,274
	Northport	780
	Lincolnville	1,013
	Plantation of Greene	702
	Knox	414
	Lincoln	224
	Jackson	275
	Washington	212
	Swan Tract	251
	Lea Gore	189
	Township No. 2, 1st Range	216
	2, 2d Range	179
	3, do.	123
	4, do.	78
	1, 3d Range	89
	2, do.	146
	3, do.	108
	East Pond Settlement	62
	Township No. 1, 4th Range	54
	2, do.	189
	3, do.	140
	1, 5th Range	62
	2, do.	210
	3, do.	236
	2, 6th Range	169
	3, do.	94
	2, 7th Range	55
	3, do.	34
	4, do.	157
	5, do.	65
	5, 8th Range	131
	6, do.	71
	State's Land	71
	Buckstown	1,403
	Castine	1,036
	Eddington	205
	Gouldsborough	471
	Isleborough	583
	Orland	480
	Orrington	1,341
	Penobscot	1,302
	Sullivan	711

Counties.	Towns.	No. inh.
Hancock.	Vinalhaven	1,052
	Mintincus	95
	Swan Island	51
	Olammon Settlement	39
	Ayers's Settlement	46
	Sunk Haze Settlement	98
	Township No. 4	136
	8	144
	9	105
	Jarvis's Gore	50
	Township No. 7	9
	8	3
	Mark Island	5
	Beach Island	4
	Island Spruce Head	23
	Butter Island	10
	Eagle Island	9
	Blue Hill	658
	Deer Isle	1,507
	Ellworth	614
	Eden	657
	Mount Desert	1,047
	Surry	360
	Sedgwick	1,352
	Trenton	501
	Moriaville Plantation	224
	Hog Isle	6
	Pond Isle	11
		30,031
Washington.	Machias	1,570
	Jonesborough	553
	Columbia	518
	Addison	399
	Harrington	469
	Cherryfield	181
	Steuben	552
	No. 19	12
	No. 23	16
	Plantation No. 11, E. of Machias	224
	Eastport	1,511
	Calais	372
	Plantation No. 1	240
	2	397
	3	37
	4	371
	6	37
	7	51

Counties.	Towns.	No. inh.
	Plantation No. 9	116
	10	76
	12	92
	13	45
	14	16
	16	15
		7,870
Kennebec.	Hallowell	2,068
	Augusta	1,805
	Gardner	1,029
	Pittston	1,018
	Readfield	1,396
	Malta	468
	Clinton	1,050
	Vassalborough	2,063
	Unity	793
	Twenty five mile pond	192
	Bridges Town	214
	Waterville	1,314
	Winslow	658
	Fairfax	924
	Beaver Hill	354
	Harlem	939
	New-Sharon	944
	Sidney	1,558
	West-pond Plantation	481
	Belgrade	996
	Farmington	1,639
	Temple	482
	Wilton	770
	Chesterville	430
	Vienna	417
	Mount Vernon	1,098
	Rome	585
	Monmouth	1,262
	Winthrop	1,444
	Greene	1,277
	Leeds	1,273
	Wayne	819
	Fayette	804
		32,564
Oxford.	Paris	1,320
	Buckfield	1,251
	Hebron	1,211
	Sumner	611
	Plantation No. 3	236

Counties.	Towns.	No. inh.
	Plantation No. 4	275
	Fryburg	1,004
	Waterford	860
	Norway	1,010
	Denmark	436
	Brownfield	388
	Lovell	365
	Hiram	336
	Porter	292
	Turner	1,129
	Chandler's Gore	9
	Thompsontown	24
	Livermore	1,560
	Hartford	720
	Dixfield	403
	Lunt's Grant	79
	Holmanstown	68
	No. 4	4
	Webb Pond	318
	Jay	1,107
	Albany	165
	East-Andover	264
	Bethel	975
	Gilead	215
	Newry	202
	Rumford	629
	East-Andover Surplus	41
	Howard's Gore	61
	Ketcham	16
	No. 1	14
	No. 2	21
	No. 7	13
		17,630
Somerset.	Canaan	1,275
	Norridgewoc	880
	Cornville	504
	Solon	512
	Madison	686
	Athens	374
	Harmony	351
	Palmyra	168
	No. 5, in 5th Range	117
	4	136
	4 6th	136
	7 7th	45
	6	62
	5 6th	4
	3 4th	134

Counties.	Towns.	No. inh.
	Sebasticook	105
	Twenty five mile pond Plantation	209
	East-Pond	44
	Fairhaven	116
	On the Million Acres N. of Solon and Athens	409
	Avon	304
	Anson	633
	Fairfield	1,348
	Strong	424
	Starks	828
	New-Vineyard	484
	New-Portland	421
	Curvo	275
	Emden	351
	Mercer	562
	Industry	562
	Freeman	237
	Million Acres.	
	No. 1, 1st Range	94
	2,	81
	1, 2d	76
	3, 1st	100
	Vassal Right	53
		12,910
	Total in Maine	228,705

MASSACHUSETTS.

Counties.	Towns.	No. inh.
Suffolk.	Boston	33,250
	Chelsea	594
	Islands within the jurisdiction of Boston.	
	Noodle's	18
	Hog	19
	Apple	7
	Deer	12
	Long	11
	Spectacle	6
	Governor's, including Fort Warren	13
		64
	Fort Independence	328
	Islands without the jurisdiction of Boston.	
	Greene	1
	Thompson's	6
	Rainsford's	20
	George's	9
	Great Brewster	4
	Outer Brewster	5
	Light House	7
	Calf Island	7
		34,381
Middlesex.	Charlestown	4,959
	Stoneham	467
	Medford	1,443
	Malden	1,384
	Reading	2,228
	Woburn	1,219
	Wilmington	716
	Tewksbury	943
	Concord	1,633
	Carlisle	672
	Bedford	592
	Burlington	471
	Billerica	1,289
	Ashby	1,103
	Townsend	1,246
	Pepperell	1,333
	Cambridge	2,323
	West-Cambridge	971
	Brighton	608
	Newton	1,709
	Watertown	1,531
	Waltham	1,014
	Groton	1,886
	Shirley	814
	Dunstable	475
	Tyngsborough	704
	Westford	1,330
	Chelmsford	1,396
	Dracut	1,301
	Marlborough	1,674
	Stow	885
	Acton	885
	Boxborough	388
	Littleton	773
	Holliston	989
	Sherburne	770
	Hopkinton	1,345

Counties.	Towns.	No. inh.
	Framingham	1,670
	Lincoln	713
	Sudbury	1,287
	Natick	766
	East-Sudbury	824
	Lexington	1,052
	Weston	1,008
		52,789
Worcester.	Worcester	2,577
	Western	1,014
	Dudley	1,226
	Brookfield	3,170
	Sturbridge	1,927
	Oxford	1,277
	Leicester	1,181
	Charlton	2,180
	Ward	540
	Westborough	1,048
	Grafton	946
	Northbridge	713
	Milford	973
	Southborough	926
	Mendon	1,819
	Douglass	1,142
	Upton	995
	Uxbridge	1,404
	Boylston	800
	West-Boylston	632
	Westminster	1,419
	Fitzburgh	1,566
	Sutton	2,660
	Holden	1,072
	Lancaster	1,694
	Bolton	1,037
	Berlin	591
	Shewsbury	1,210
	Barre	1,971
	Princetown	1,062
	Hubbardstown	1,127
	Sterling	1,472
	Hardwick	1,657
	Templeton	1,205
	Harvard	1,431
	Petersham	1,490
	Leominster	1,584
	Lunenburgh	1,371
	Northborough	794
	Royalston	1,415

Counties.	Towns.	No. inh.
	Paxton	619
	Winchendon	1,178
	Oakham	848
	Ashburnham	1,036
	Gerry	839
	Athol	1,041
	Spencer	1,462
	Dana	625
	Gardner	815
	Rutland	1,231
	New-Braintree	912
		64,910
Hampshire.	Springfield	2,767
	Brimfield	1,325
	South-Hadley	902
	Long Meadow	1,036
	South-Brimfield	645
	Granby	850
	Wilbraham	1,776
	Holland	420
	Monson	1,674
	Ludlow	730
	Northampton	2,631
	Easthampton	660
	Worthington	1,391
	Westhampton	793
	Norwich	968
	Southampton	1,171
	Middlefield	823
	Ware	996
	Greenwich	1,225
	Belchertown	2,270
	Hadley	1,247
	Palmer	1,114
	Pelham	1,185
	Amherst	1,469
	Greenfield	1,165
	Colraine	2,016
	Gill	762
	Rowe	839
	Leyden	1,009
	Heath	917
	Bernardstown	811
	Claremont	987
	Erving's Gore	160
	Montague	934
	Sunderland	551
	Warwick	1,227

Counties.	Towns.	No. inh.
	Leverett	769
	Wendell	983
	Orange	764
	New-Salem	2,107
	Shutesbury	939
	Northfield	1,218
	Conway	1,784
	Goshen	652
	Shelburne	961
	Chesterfield	1,408
	Ashfield	1,809
	Hawley	1,031
	Deerfield	1,570
	Cummington	1,009
	Buckland	1,097
	Whatley	891
	Plainfield	977
	Hatfield	805
	Williamsburgh	1,122
	West-Springfield	3,109
	Granville	1,504
	Montgomery	595
	Westfield	2,130
	Blanford	1,613
	Chester	1,534
	Southwick	1,229
	Russell	422
	Tolland	798
		76,275
Nantucket.	Nantucket	6,807
		6,807
Duke's.	Edgartown	1,365
	Chilmark	723
	Tisbury, including the Elizabeth islands	1,202
		3,290
Berkshire.	Lenox	1,310
	Pittsfield	2,665
	Richmond	1,041
	Dalton	779
	Sheffield	2,439
	Alford	522
	Mount Washington	474

Counties.	Towns.	No. inh.
	Sandersfield	1,648
	Great Barrington	1,784
	New-Marlborough	1,832
	Southfield	147
	Otis	1,111
	Egremont	790
	Williamstown	1,848
	Adams	1,763
	Windsor	1,108
	Cheshire	1,315
	Lanesborough	1,303
	New-Ashford	411
	Hancock	1,049
	Savoy	711
	Clarksburgh	231
	Gore E. of Florida	120
	Florida	392
	Stockbridge	1,372
	West-Stockbridge	1,049
	Tyringham	1,689
	Lee	1,305
	Becket	1,028
	Washington	942
	Hinsdale	822
	Peru	912
		35,907
Essex.	Haverhill	2,682
	Amesbury	1,890
	Methuen	1,181
	Salisbury	2,047
	Bradford	1,369
	Boxford	880
	Gloucester and Thatcher's Island	5,943
	Manchester	1,437
	Marblehead	5,909
	Andover	3,164
	Lynn	4,087
	Lynnfield	509
	Ipswich	3,569
	Rowley	1,682
	Wenham	554
	Hamilton	780
	Beverly	4,608
	Danvers	3,127
	Middleton	541
	Topsfield	815
	Newbury	5,176

Counties.	Towns.	No. inh.
	Newburyport	7,634
	Salem	12,615
		71,888
Plymouth.	Hanover	1,171
	Pembroke	2,051
	Scituate	2,969
	Marshfield	1,364
	Bridgewater	5,157
	Abington	1,704
	Duxbury	2,201
	Kingston	1,137
	Halifax	703
	Plympton	900
	Plymouth	4,228
	Wareham	851
	Rochester	2,954
	Carver	858
	Middleborough	4,400
	Hingham	2,382
	Hull	132
	Pedrick's Island	7
		35,169
Bristol.	Taunton	3,907
	Berkley	1,014
	Troy	1,296
	Norton	1,598
	Dighton	1,659
	Rehoboth	4,866
	Freetown	1,878
	Eastown	1,557
	Swansey	1,389
	Attleborough	2,716
	Raynham	1,154
	Somerset	1,199
	Mansfield	1,030
	Westport	2,585
	New-Bedford	5,651
	Dartmouth	3,219
		37,168

Counties.	Towns.	No. inh.
Barnstable.	Barnstable	3,646
	Yarmouth	2,134
	Sandwich	2,382
	Falmouth	2,237
	Dennis	1,739
	District of Marshpee	139
	Harwich	1,942
	Eastham	751
	Brewster	1,112
	Wellfleet	1,402
	Chatham	1,334
	Orleans	1,248
	Truro	1,209
	Provincetown	936
		22,211
Norfolk.	Roxbury	3,669
	Brooklyn	784
	Needham	1,097
	Dover	548
	Dedham	2,173
	Medfield	786
	Dorchester	2,930
	Milton	1,264
	Quincy	1,281
	Braintree	1,351
	Stoughton	1,154
	Randolph	1,170
	Canton	1,553
	Wrentham	2,478
	Medway	1,215
	Foxborough	870
	Bellingham	766
	Sharon	1,000
	Walpole	1,098
	Franklin	1,398
	Weymouth	1,889
	Cohasset	994
		31,245
	Total in Massachusetts	472,040

NEW-HAMPSHIRE.

Counties.	Towns.	No. inh.
Rockingham.	Allenstown	346
	Atkinson	556
	Bow	729
	Brentwood	905
	Candia	1,290
	Canterbury	1,526
	Chester	2,030
	Chichester	951
	Concord	2,393
	Deerfield	1,85[illegible]
	East-Kingston	442
	Epping	1,182
	Epsom	1,156
	Exeter	1,759
	Gosport	72
	Greenland	592
	Hampstead	738
	Hampton	990
	Hampton Falls	570
	Hawke	412
	Kensington	781
	Kingston	746
	Londonderry	2,766
	Loudon	1,472
	New-Castle	592
	Newington	508
	Newmarket	1,061
	Newtown	454
	Northfield	1,057
	Northampton	651
	Northwood	1,095
	Nottingham	1,063
	Pelham	998
	Pembroke	1,153
	Pittsfield	1,050
	Plaistow	424
	Poplin	462
	Portsmouth	6,934
	Raymond	898
	Rye	1,020
	Salem	1,179
	Sandown	501
	Seabrook	774
	Southampton	427
	Stratham	874
	Windham	742
		50,175

Counties.	Towns.	No. inh.
Strafford.	Alton	1,279
	Barnstead	1,477
	Barrington	3,564
	Brookfield	657
	Burton	194
	Centreharbor	349
	Conway	1,080
	Dover	2,228
	Durham	1,449
	Eaton	535
	Effingham	876
	Farmington	1,272
	Gilmanton	4,338
	Lee	1,329
	Madbury	582
	Meredith	1,940
	Middleton	439
	Milton	1,005
	Moultonborough	994
	New-Durham	888
	New-Hampton	1,293
	Ossipee	1,205
	Ossipee Gore	125
	Rochester	2,118
	Sanbornton	2,884
	Sandwich	2,232
	Somersworth	878
	Tamworth	1,134
	Tristonborough	709
	Wakefield	1,166
	Wolfeborough	1,376
		41,595

Counties.	Towns.	No. inh.
Hillsborough.	Amherst	1,554
	Andover	1,259
	Antrim	1,277
	Bedford	1,296
	Boscawen	1,829
	Brookline	538
	Bradford	1,034
	Deering	1,363
	Dunbarton	1,256
	Dunstable	1,049
	Fishersfield	563
	Francestown	1,451
	Goffstown	2,000
	Greenfield	980

Counties.	Towns.	No. inh.
Cheshire.	Hancock	1,184
	Henniker	1,608
	Hillsborough	1,592
	Hollis	1,529
	Hopkinton	2,216
	Kearsage Gore	125
	Litchfield	382
	Lyndeborough	1,074
	Manchester	615
	Mason	1,077
	Merrimac	1,048
	Milford	1,117
	Mount Vernon	762
	New-Boston	1,619
	New-Ipswich	1,395
	New-London	692
	Nottingham West	1,376
	Petersborough	1,537
	Salisbury	1,913
	Sharon	446
	Society Land	199
	Sutton	1,328
	Temple	941
	Warner	1,838
	Weare	2,634
	Windsor	238
	Wilton	1,017
	Wilmot	298
		49,249

Counties.	Towns.	No. inh.
Grafton.	Acworth	1,523
	Alstead	1,694
	Charleston	1,501
	Chesterfield	1,839
	Claremont	2,094
	Cornish	1,606
	Croydon	862
	Dublin	1,184
	Fitzwilliam	1,301
	Hinsdale	740
	Gilsum	513
	Goshen	563
	Jaffrey	1,336
	Keene	1,646
	Langdon	632
	Lempster	854
	Marlborough	1,142
	Marlow	566
	New-Grantham	864
	Newport	1,427
	Packersfield	1,076
	Plainfield	1,463
	Richmond	1,290
	Rindge	1,226
	Springfield	814
	Steddard	1,132
	Surry	564
	Sullivan	516
	Swanzey	1,400
	Unity	1,044
	Walpole	1,894
	Washington	820
	Wendell	447
	Westmoreland	1,937
	Winchester	1,478
		40,988

Towns.	No. inh.
Alexandria	409
Bath	1,316
Bethlehem	422
Bridgewater	1,104
Campton	873
Canaan	1,094
Concord	1,126
Coventry	162
Danbury	345
Dorchester	537
Ellsworth	142
Enfield	1,291
Franconia	358
Grafton	931
Groton	549
Hanover	2,135
Haverhill	1,[illegible]
Hebron	563
Holderness	835
Landaff	650
Lebanon	1,808
Lyme	1,670
Lincoln	100
Littleton	873
Lyman	948
New-Chester	895
Orange	229
Orford	1,265
Peeling	203
Piermont	877
Plymouth	937

Counties.	Towns.	No. inh.
	Rumney	765
	Thornton	794
	Warren	506
	Wentworth	645
		28,462
Coos.	Adams	244
	Bartlett	436
	Bretton Woods	12
	Chatham	201
	Cockburne	142
	Colebrook	325
	Dixville	12
	Dummer	7
	Dalton	235
	Durand	62
	Erroll	38
Counties.	Towns.	No. inh.
	Jefferson	197
	Kilkenny	28
	Lancaster	717
	Northumberland	281
	Piercy	211
	Stratford	339
	Shelburne and Addition	176
	Stewartstown	186
	Paulsburgh	14
	Warner's Patent	20
	Hart's Location	35
	Nash and Sawyer's, Barker's, &c. Locations	22
	Whitefield	51
		3,991
	Total in N. Hampshire	214,460

VERMONT.

Counties.	Towns.	No. inh.
Addison.	Addison	1,100
	Avery's Gore	13
	Bridport	1,520
	Bristol	1,179
	Cornwall	1,279
	Ferrisburgh	1,647
	Goshen	86
	Hancock	811
	Kingston	324
	Leicester	609
	Lincoln	225
	Middlebury	2,138
	Monkton	1,248
	New-Haven	1,688
	Panton	520
	Ripton	15
	Salisbury	709
	Shoreham	2,033
	Starksborough	726
	Vergennes	835
	Waltham	244
	Warren	229
	Weybridge	750
	Whiting	565
		19,993
Counties.	Towns.	No. inh.
Bennington.	Arlington	1,468
	Bennington	2,524
	Dorset	1,294
	Glastenbury	76
	Landgrove	299
	Manchester	1,502
	Pownal	1,655
	Peru	239
	Rupert	1,630
	Reedsborough	410
	Sandgate	1,187
	Sunderland	575
	Shaftsbury	1,973
	Stamford	378
	Winhall	429
	Woodford	254
		15,893
Caledonia.	Barnet	1,301
	Billymead	433
	Burke	459
	Cabos	886
	Calais	841
	Danville	2,240
	Deweysburgh	200

Counties.	Towns.	No. inh.
Chittenden.	Groton	449
	Goshen Gore	64
	Hardwick	734
	Kirby	311
	Lyndon	1,090
	Marshfield	513
	Montpelier	1,873
	Peacham	1,301
	Plainfield	543
	Ryegate	812
	St. Johnsbury	1,330
	Sheffield	388
	Walden	455
	Waterford	1,289
	Wheelock	964
	Woodbury	254
		18,730
	Bolton	249
	Burlington	1,690
	Charlotte	1,679
	Colchester	657
	Duxbury	326
	Essex	957
	Fayston	149
	Hinesburgh	1,238
	Huntington	514
	Jericho	1,185
	Mansfield	38
	Middlesex	401
	Milton	1,546
	Moretown	405
	Richmond	935
	Shelburn	987
	St. George	68
	Stow	650
	Underhill	490
	Waitsfield	647
	Warterbury	966
	Westford	1,107
	Williston	1,195
	Worcester	41
		18,120
Essex.	Averill	9
	Brunswick	143
	Canaan	232
	Concord	677
	East-Haven	30
	Granley	120
	Guildhall	544
	Lemington	132
	Lunenburgh	714
	Maidstone	177
	Minchead	144
	Newark	88
	Victory	6
	Westmore	71
		3,087
Franklin.	Bakersfield	812
	Belvedere	217
	Berkshire	918
	Cambridge	990
	Coit's Gore	193
	Enosburgh	704
	Fairfield	1,618
	Fairfax	1,301
	Fletcher	382
	Georgia	1,760
	Highgate	1,374
	Huntsburgh	714
	Johnson	494
	Montgomery	237
	Richford	442
	Sheldon	883
	St. Albans	1,609
	Sterling	122
	Swanton	1,657
		16,427
Grand Isle.	Alburgh	1,106
	Middle Hero	623
	North-Hero	552
	South-Hero	826
	Vineyard	338
		3,445
Orange.	Bradford	1,302
	Braintree	850
	Barre	1,669
	Berlin	1,067
	Brookfield	1,384
	Corinth	1,876
	Chelsea	1,327

Counties.	Towns.	No. inh.
	Fairlee	983
	Newbury	1,363
	Northfield	426
	Orange	686
	Randolph	2,255
	Roxbury	361
	Strafford	1,805
	Thetford	1,735
	Topsham	814
	Tunbridge	1,640
	Vershire	1,311
	Washington	1,046
	Williamstown	1,353
		25,247
Orleans.	Brownington	236
	Barton	447
	Coventry	178
	Craftsburg	566
	Duncansborough	112
	Derley	714
	Elmore	157
	Eden	224
	Glover	378
	Greensborough	566
	Holland	126
	Hydepark	261
	Irasburgh	393
	Jay	28
	Kelley Vale	40
	Lutterloch	101
	Morgan	135
	Navy	56
	Morristown	550
	Salem	58
	Troy	231
	Westfield	149
	Woolcott	124
		5,830
Rutland.	Benson	1,561
	Brandon	1,375
	Castleton	1,420
	Chittenden	446
	Clarendon	1,797
	Danby	1,730
	Fairhaven	645

Counties.	Towns.	No. inh.
	Hubbardton	734
	Ira	519
	Middletown	1,207
	Mount Holly	922
	Mount Tabor	209
	Orwell	1,849
	Pacolet	2,233
	Parker's Town	111
	Pittsford	1,936
	Pittsfield	338
	Philadelphia	205
	Poultney	1,904
	Rutland	2,379
	Sherburn	116
	Shrewsbury	990
	Sudbury	754
	Tinmouth	1,001
	Wallingford	1,386
	West-Haven	679
	Wells	1,040
		29,486
Windham.	Acton	245
	Athens	478
	Brattleborough	1,891
	Brookline	431
	Dummerston	1,704
	Grafton	1,365
	Guilford	1,872
	Halifax	1,758
	Jamaica	996
	Londonderry	637
	Marlborough	1,245
	Newfane	1,276
	Putney	1,607
	Rockingham	1,954
	Somerset	199
	Stratton	265
	Townshend	1,115
	Vernon	521
	Wardsboro' N. Dist.	1,159
	Wardsboro' S. Dist.	894
	Westminster	1,925
	Wilmington	1,193
	Whitingham	1,248
	Windham	782
		26,760

Counties.	Towns.	No. inh.
Windsor.	Andover	957
	Barnard	1,648
	Bethel	1,041
	Bridgewater	1,154
	Baltimore	207
	Cavendish	1,295
	Chester	2,370
	Hartland	2,352
	Hartford	1,831
	Ludlow	877
	Norwich	1,812
	Plymouth	834
	Pomfret	1,473
	Reading	1,565
	Rochester	911
	Royalton	1,758
	Sharon	1,363
	Stockbridge	700
	Springfield	2,556
	Windsor	2,757
	Weathersfield	2,115
	Woodstock	2,672
	Weston	629
		34,877
	Total in Vermont	217,895

RHODE ISLAND.

Counties.	Towns.	No. inh.
Providence.	Providence	10,071
	Smithfield	3,828
	North-Providence	1,758
	Gloucester	2,310
	Burrillville	1,834
	Cumberland	2,110
	Cranston	2,161
	Johnston	1,516
	Foster	2,613
	Scituate	2,568
		30,769
Newport.	Newport	7,907
	Middletown	976
	Portsmouth	1,795
	Jamestown	504
	Little Compton	1,553
	Tiverton	2,837
	New-Shoreham	722
		16,294

Counties.	Towns.	No. inh.
Washington.	North-Kingston	2,957
	South-Kingston	3,560
	Charlestown	1,174
	Westerly	1,911
	Hopkinton	1,774
	Richmond	1,330
	Exeter	2,256
		14,962
Kent.	Warwick	3,757
	Coventry	2,928
	West-Greenwich	1,619
	East-Greenwich	1,530
		9,834
Bristol.	Bristol	2,693
	Warren	1,775
	Barrington	604
		5,072
	Total in Rhode Island	76,931
	Slaves	108

CONNECTICUT.

Counties.	Towns.	No. inh.
Hartford.	Hartford city	3,955
	Hartford, except the city	2,048
	Berlin	2,798
	Bristol	1,428
	Burlington	1,467
	Canton	1,374
	East-Hartford	3,240
	East-Windsor	3,081
	Enfield	1,846
	Farmington	2,748
	Glastenbury	2,766
	Granby	2,696
	Hartland	1,284
	Marlborough	720
	Simsbury	1,966
	Southington	1,807
	Suffield	2,680
	Wethersfield	3,961
	Windsor	2,868
		44,733
New-Haven.	New-Haven city	5,772
	New-Haven, except the city	1,195
	Branford	1,932
	Cheshire	2,288
	Derby	2,051
	East-Haven	1,209
	Guilford	3,845
	Hamden	1,716
	Milford	2,674
	Meriden	1,249
	Middlebury	847
	North-Haven	1,239
	Oxford	1,453
	Southbury	1,413
	Wallingford	2,325
	Waterbury	2,874
	Woodbridge	2,030
	Wolcott	952
		37,064

Counties.	Towns.	No. inh.
New-London.	New-London city	3,238
	Norwich city	2,976
	Norwich, except the city	552
	Bozrah	960
	Colchester	2,697
	Franklin	1,161
	Groton	4,451
	Lyme	4,321
	Lisbon	1,128
	Montville	2,187
	North-Stonington	2,524
	Preston	3,284
	Stonington	3,043
	Waterford	2,185
		34,707
Fairfield.	Fairfield	4,125
	Danbury	3,606
	Brookfield	1,037
	Greenwich	3,533
	Huntington	2,770
	New-Canaan	1,599
	New-Fairfield	772
	Newtown	2,834
	Norwalk	2,983
	Reading	1,717
	Ridgefield	2,103
	Stamford	4,440
	Stratford	2,895
	Sherman	949
	Trumbull	1,241
	Weston	2,618
	Wilton	1,728
		40,950
Windham.	Windham	2,416
	Ashford	2,532
	Brooklyn	1,200
	Canterbury	1,812
	Columbia	834
	Hampton	1,274

Counties.	Towns.	No. inh.
	Killingly	2,512
	Lebanon	2,580
	Mansfield	2,570
	Plainfield	1,738
	Pomfret	1,905
	Sterling	1,101
	Thompson	2,467
	Voluntown	1,016
	Woodstock	2,654
		28,611
Litchfield.	Litchfield	4,639
	Barkhamstead	1,506
	Bethlem	1,118
	Canaan	2,203
	Colebrook	1,243
	Cornwall	1,602
	Goshen	1,641
	Harwinton	1,718
	Kent	1,794
	New-Hartford	1,507
	New-Milford	3,537
	Norfolk	1,441
	Plymouth	1,882
	Roxbury	1,217
	Salisbury	2,321
	Sharon	2,606
	Torrington	1,586
	Washington	1,575
	Warren	1,096
	Watertown	1,714
	Winchester	1,466
	Woodbury	1,963
		41,375
Middlesex.	Middletown city	2,014
	Middletown, except the city	3,368
	Chatham	3,258
	Durham	1,101
	Haddam	2,205
	East-Haddam	2,537
	Killingworth	2,244
	Saybrook	3,996
		20,723
Tolland.	Tolland	1,610
	Bolton	700
	Coventry	1,938
	Ellington	1,544
	Hebron	2,002
	Somers	1,210
	Stafford	2,235
	Union	752
	Vernon	827
	Willington	1,161
		13,779
	Total in Connecticut	261,942
	Slaves	310

NEW-YORK.

Counties.	No. inh.	Counties.	No. inh.
Suffolk	21,113	Delaware	20,303
Queens	19,336	Schoharie	18,945
Kings	8,303	City and county of Albany	34,661
Richmond	5,347	Do. do. Schenectady	10,201
City and county of N. York	96,373	Rensselaer	36,309
Rockland	7,758	Montgomery	41,214
West-Chester	30,272	Washington	44,289
Orange	34,347	Saratoga	33,147
Ulster	26,576	Essex	9,477
Sullivan	6,108	Clinton	8,002
Dutchess	51,365	Franklin	2,617
Columbia	32,390	Otsego	38,802
Green	19,536	Herkimer	22,046

Counties.	No. inh.	Counties.	No. inh.
Oneida	33,792	Cayuga	29,843
Jefferson	15,140	Seneca	16,609
St. Lawrence	7,885	Steuben	7,246
Lewis	6,433	Allegany	1,942
Chenango	21,704	Ontario	42,032
Madison	25,144	Genesee	12,588
Tioga	7,899	Niagara	8,971
Cortlandt	8,869		
Broome	8,130	Total in New-York	959,049
Onondago	25,987		
		Slaves	15,017

NEW-JERSEY.

Counties.	Towns.	No. inh.
Essex.	Newark	8,008
	Elizabeth	2,977
	Caldwell	2,235
	Union	1,428
	Rahway	1,779
	Orange	2,266
	Springfield	2,360
	Westfield	2,152
	Acquacknonk	2,023
	Providence	756
		25,984
Sussex.	Hardwick	2,561
	Walpack	591
	Sandiston	703
	Montague	661
	Frankford	1,637
	Wantage	2,969
	Hardiston	1,702
	Vernon	1,708
	Newtown	2,082
	Byram	591
	Independence	1,224
	Mansfield	2,058
	Greenwich	2,528
	Knowlton	2,064
	Oxford	2,470
		25,549
Somerset.	Franklin	2,539
	Bridgewater	2,906
	Warren	1,354
	Bernards	1,876
Sussex.	Montgomery	2,282
	Bedminster	1,312
	Hillsborough	2,456
		14,725
Burlington.	Burlington	2,419
	Williamsborough	619
	Springfield	1,500
	Hanover	2,536
	Nottingham	2,615
	Northampton	4,171
	Chesterfield	1,839
	Mansfield	1,810
	Washington	1,273
	Egg Harbour	913
	Evesham	3,445
	Chester	1,839
		24,979
Hunterdon.	Trenton	3,000
	Maidenhead	1,086
	Hopewell	2,565
	Amwell	5,777
	Readington	1,797
	Bethlem	1,738
	Alexandria	2,271
	Kingwood	2,605
	Lebanon	2,409
	Tewksbury	1,308
		24,556

Counties.	Towns.	No. inh
Morris.	Morris	3,753
	Pequannock	3,853
	Jefferson	1,281
	Hanover	3,843
	Chatham	2,019
	Roxbury	1,563
	Washington	1,793
	Chester	1,175
	Randolph	1,271
	Mendham	1,277
		21,828
Monmouth.	Shrewsbury	3,773
	Middletown	3,849
	Freehold	4,784
	Upper Freehold	3,843
	Howell	2,780
	Dover	1,882
	Stafford	1,239
		22,150
Middlesex.	Piscataway	2,475
	Woodbridge	4,247
	Perth Amboy	815
	North-Brunswick	3,980
	South-Brunswick	2,332
	South-Amboy	3,071
	East-Windsor	1,747
	West-Windsor	1,714
		20,381
Gloucester.	Weymouth	1,029
	Egg Harbour	1,830
	Galloway	1,648
	Woolwich	3,063
	Greenwich	2,859
	Deptford	2,978
	Gloucester	1,726
	Gloucester Town	555
	Newtown	1,951
	Waterford	2,105
		19,744

Counties.	Towns.	No. inh.
Bergen.	Pompton	2,060
	Franklin	2,839
	Saddle River	2,174
	Harrington	2,087
	New-Barbadoes	2,835
	Bergen	2,690
	Hackensac	1,918
		16,603
Salem.	Pilesgrove	1,756
	Pittsgrove	1,991
	Upper Alloway's Creek	1,921
	Salem	929
	Lower Alloway's Creek	1,182
	Elsenborough	517
	Upper Penn's Neck	1,638
	Mannington	1,664
	Lower Penn's Neck	1,163
		12,761
Cumberland.	Deerfield	1,889
	Hopewell	1,987
	Stow Creek	1,039
	Greenwich	858
	Fairfield	2,279
	Downe	1,501
	Maurice River	2,085
	Millville	1,032
		12,670
Cape May.	Upper Township	1,664
	Middle Township	1,106
	Lower Township	862
		3,632
	Total in New-Jersey	245,562
	Slaves	10,851

PENNSYLVANIA.

Philadelphia City.

Wards.	No. inh.
Chesnut	2,732
Walnut	2,306
Dock	2,170
Middle	2,681
South	2,430
Locust	4,155
Cedar	6,664
New-Market	5,512
High Street	2,764
North	5,363
South-Mulberry	6,169
North-Mulberry	3,605
Lower Delaware	3,526
Upper Delaware	3,644
	53,722

Counties. Philadelphia.

Townships, &c.	No. inh.
East-Southwark	7,264
West-Southwark	6,443
Moyamensing township	2,887
Passyunk township	992
East Northern Liberties (built part)	10,079
East Northern Liberties (out part)	1,516
West Northern Liberties (built part)	9,795
West Northern Liberties (out part)	168
Lower Dublin township	2,194
Moreland do.	400
Byberry do.	765
Oxford do.	973
Frankford borough	1,233
Bristol township	965
Germantown do.	4,243
Penn do.	3,798
Kingsessing do.	903
Blockley do.	1,618
Roxborough do.	1,252
	57,488

Counties. Montgomery.

Townships, &c.	No. inh.
Abington	1,236
Cheltenham	783
Douglass	687
Frederick	828
Franconia	656
Gwynedd	1,078
Hatfield	652
Horsham	938
Limeric	1,282
Lower Merion	1,835
Lower Salford	558
Lower Providence	904
Marlborough	672
Montgomery	580
Mooreland	1,692
New-Hanover	1,065
Norriston	1,336
Skippac and Perkiomen	902
Pottsgrove	1,571
Plymouth	895
Springfield	550
Towamencing	488
Upper Providence	1,395
Upper Dublin	1,050
Upper Hanover	925
Upper Merion	1,156
Upper Salford	838
Whitpaine	955
Whitemarsh	1,328
Worcester	868
	29,703

Bucks.

Bristol borough	628
Bristol	1,008
Buckingham	1,715
Bedminster	1,199
Bensalem	1,434
Durham	404
Haycock	836
Hilltown	1,335
Middletown	1,663
New-Britain	1,474
Newton	902

Counties.	Townships, &c.	No. inh.
Northampton.	Nockamixon	1,207
	Northampton	1,176
	Plumstead	1,407
	Richland	1,317
	Solebury	1,669
	Southampton	739
	Springfield	1,287
	Tinicum	1,017
	Warminster	564
	Warrington	429
	Warwick	1,287
	Wrightstown	562
	Milford	1,334
	Rockhill	1,508
	Falls	1,649
	Upper Wakefield	1,271
	Lower Wakefield	1,089
	Morrisville borough	261
		32,371
	East-Penn	665
	Heidelberg	1,433
	Lower Saucon	1,974
	Lowhill	632
	Lynn	1,497
	Lausanne	157
	Macungy	2,420
	Northampton town	710
	Rush	140
	Salisbury	933
	Upper Saucon	1,456
	Upper Milford	2,033
	Williams	1,243
	Whitehall	2,551
	Weissenberg	1,046
	West-Penn	947
	Easton borough	1,657
	Fork's	1,132
	Bethlehem	1,436
	Lower Nazareth	748
	Upper Nazareth	535
	Plainfield	1,439
	Lower Mount Bethel	1,392
	Upper Mount Bethel	1,352
	Lehigh	1,188
	Moore	1,108
	Hanover	939
	Allen	1,291
	Chesnut Hill	1,128

Counties.	Townships, &c.	No. inh.
	Towamensing	593
	Hamilton	1,044
	Lower Smithfield	1,326
		38,145
Wayne.	Milford town	83
	Upper Smithfield	520
	Delaware	472
	Middle Smithfield	682
	Lexawacsein	165
	Dyberry	318
	Damascus	391
	Palmyra	336
	Buckingham	153
	Canaan	229
	Salem	254
	Mount Pleasant	522
		4,125
Luzerne.	Wilksbarre	1,225
	Kingston	852
	Hanover	635
	Plymouth	765
	Pittstown	694
	Exeter	612
	Providence	589
	Abington	511
	Willingborough	351
	Harmony	80
	Lawsville	169
	Bridgewater	1,418
	Harford	478
	New-Milford	178
	Tunkhanoc	854
	Rush	[illegible]1
	Clifford	675
	Nicholson	169
	Newport	566
	Nescopec	460
	Sugarloaf	282
	Salem	530
	Huntingdon	1,114
	Brantrim	904
	Wyalusing	576
	Wysocks	619
	Orwell	757
	Canton	417
	Towandy	788
		18,109

Counties.	Townships, &c.	No. inh.
Delaware.	Chester	1,056
	Concord	1,061
	Bethel	299
	Upper Chichester	417
	Lower Chichester	511
	Upper Providence	561
	Marple	649
	Springfield	541
	Newton	601
	Middletown	948
	Tinicum	249
	Upper Darby	966
	Ridley	991
	Haverford	754
	Ashton	765
	Lower Darby	1,085
	Edgmont	611
	Thornbury	564
	Birmingham	586
	Radnor	925
	Nether Providence	594
		14,734
Chester.	East-Town	587
	Tryddeffrin	1,253
	East-Whiteland	779
	Willistown	1,175
	Charlestown	1,580
	West-Chesterborough	471
	East-Bradford	1,003
	West-Whiteland	636
	Goshen	1,273
	West-Town	790
	Uwchland	1,178
	Pikeland	1,001
	Vincent	1,630
	Thornbury	200
	Birmingham	290
	Pennsborough	728
	West-Bradford	1,219
	Kennett	947
	Newlin	780
	West-Marlborough	917
	East-Marlborough	1,046
	New-Garden	1,038
	West-Fallowfield	1,157
	East-Fallowfield	990
	London Grove	983
	New-London	1,018
	London Britain	404
	Upper Oxford	700
	Lower Oxford	769
	East-Nottingham	1,409
	West-Nottingham	642
	Londonderry	1,164
	Coventry	1,608
	East-Nantmill	1,544
	West-Nantmill	1,188
	Honey Brook	1,073
	Brandywine	1,257
	East-Caln	974
	West-Caln	1,003
	Sadsbury	1,192
		39,596
Lancaster.	Lancaster	592
	Manheim	1,282
	Lampeter	2,501
	Conestogo	1,506
	Dromore	1,295
	Little Britain	1,700
	Manor	2,642
	Leacock	2,410
	Martick	1,623
	Hempfield	3,431
	Lancaster borough	5,405
	Bart	1,099
	Colerain	834
	Caernarvon	1,084
	Earl	4,218
	Strasburg	2,710
	Salisbury	1,841
	Sadsbury	843
	Elizabeth	677
	Cocalico	4,024
	Brecknock	890
	Warwick	3,439
	Rapho	2,814
	Mountjoy	1,551
	Donegal	3,516
		53,927
Dauphin.	Middle Paxton	707
	Halifax	1,365
	Upper Paxton	2,232
	Bethel	2,091
	East-Hanover	1,387

Counties.	Townships, &c.	No. inh.
Dauphin.	Harrisburg	2,287
	Lebanon borough	1,434
	Lebanon	2,473
	Lower Paxton	2,180
	Londonderry	2,411
	Swetara	2,291
	Heidelberg	3,532
	Derry	2,431
	West-Hanover	2,461
	Anvel	2,601
		31,883
Berks.	Amity	1,090
	Brunswick	1,770
	Colebrookdale	792
	Douglass	660
	Earl	794
	East-District	805
	Exeter	1,194
	Hereford	1,140
	Longswamp	998
	Manheim	1,354
	Lower Mahantongo	637
	Upper Mahantongo	489
	Norwegan	415
	Oley	1,284
	Pinegrove	1,290
	Rockland	1,026
	Ruscomb Manor	932
	Schuylkill	553
	Maxatany	1,630
	Richmond	971
	Greenwich	1,104
	Albany	995
	Reading borough and township	3,462
	Maiden Creek	918
	Windsor	1,358
	Alsace	1,275
	Union	766
	Robeson	1,807
	Caernarvon	723
	Brecknock	495
	Comru	2,017
	Heidleberg	2,802
	Bern, Bethel, and Tulpehockon	5,800
		43,146

Counties.	Townships, &c.	No. inh.
Northumberland.	Sunbury borough	790
	Augusta	1,373
	Mifflin	820
	Catawessy	1,934
	Lower Mohanoy	1,040
	Upper Mohanoy	1,426
	Shamokin	2,027
	Beaver	1,502
	Centre	1,590
	Mahantango	1,605
	Penn's	2,072
	East-Buffaloe	2,869
	West-Buffaloe	2,523
	Northumberland	627
	Point	431
	Chilisquaque	1,505
	Washington	438
	White Deer	1,152
	Turbet	2,917
	Derry	2,283
	Greenwood	1,028
	Fishing Creek	628
	Beaver Creek	774
	Bloom	1,285
	Mahoning	829
	Hemlock	879
		36,327
York.	York borough	2,847
	Hellam	1,410
	Manchester	1,579
	West-Manchester	978
	Dover	1,882
	Hopewell	1,577
	Chanceford	966
	Lower Chanceford	818
	Fawn	1,402
	Newbury	1,796
	Fairview	1,258
	Warrington	1,105
	Windsor	1,759
	York	1,640
	Heidelberg	1,087
	Manheim	2,207
	Paradise	1,548
	Monaghan	725
	Washington	941
	Franklin	706

Counties.	Townships, &c.	No. inh.
	Shrewsbury	1,792
	Codorus	1,975
		31,958
Adams.	Huntingdon	1,014
	Latimore	666
	Tyrone	648
	Reading	732
	Germany	788
	Littlestown	287
	Mountjoy	636
	Conewago	531
	Berwick	1,799
	Mountpleasant	1,105
	Remainder of the county, consisting of Strabane, Gettysburg, Franklin, Cumberland, Hamilton, Ban, Manallen, and Liberty townships	6,946
		15,152
Cumberland.	Carlisle borough	2,491
	Shippensburgh	1,159
	East-Pennsborough	2,365
	Southampton	700
	Hopewell	769
	Newton	1,312
	West-Pennsborough	1,264
	Middleton	2,351
	Dickinson	1,749
	Allen	1,837
	Frankford	807
	Mifflin	1,289
	Rye	1,356
	Juniata	1,233
	Greenwood	1,102
	Tyrone	2,604
	Toboine	1,799
	Buffaloe	570
		26,757
Franklin.	Hamilton	1,263
	Washington	2,709
	Guilford	1,961
	Antrim	2,864
Counties.	Townships, &c.	No. inh.
	Peters	1,762
	Metal	1,236
	Fannet	1,398
	Warren	436
	Montgomery	2,693
	Franklin	1,781
	Letterkenny	1,549
	Green	1,497
	Southampton	1,060
	Lurgan	874
		23,083
Bedford.	Bedford town	547
	Bedford	1,342
	Cumberland Valley	570
	Londonderry	486
	St. Clair	1,847
	Greenfield	855
	Colerain	876
	Air	1,179
	Providence	1,492
	Southampton	932
	Dublin	820
	Hopewell	1,297
	Bethel	1,095
	Belfast	750
	Woodbury	1,658
		15,746
Cambria.	Allegany	610
	Conemaugh	639
	Cambria	868
		2,117
Indiana.	Centre	777
	Washington	755
	Wheatfield	1,475
	Blacklick	965
	Conemaugh	1,167
	Armstrong	523
	Mahoning	552
		6,214
Huntingdon.	Huntingdon borough	676
	Alexandria town	156
	Huntingdon	1,698
	West	998
	Petersburg town	194

Counties.	Townships, &c.	No. inh.
Bedford.	Barree	1,053
	Allegany	1,159
	Tyrone	753
	Warrior Mark	672
	Union	706
	Dublin	970
	Franklin	571
	Woodberry	1,107
	Franks	1,114
	Shirley	862
	Springfield	751
	Hopewell	805
	Morris	533
		14,778
Clearfield.	Clearfield	875
		875
Jefferson.	Jefferson	161
		161
Washington.	Washington	1,301
	Strabane	2,395
	Canton	1,345
	Peters	1,054
	Cecil	1,167
	Roblinson	770
	Mount Pleasant	1,165
	Chartiers	1,747
	Smith's	1,646
	Hanover	1,049
	Cross Creek	1,847
	Hopewell	2,193
	Buffaloe	1,416
	Amwell	1,673
	Somerset	1,500
	Nottingham	2,037
	Fallowfield	1,994
	Pike Run	1,693
	East-Bethlehem	1,806
	West-Bethlehem	1,849
	Morris	1,679
	Finley	1,636
	Donegal	1,327
		36,289

Counties.	Townships, &c.	No. inh.
Allegany.	Mifflin	1,953
	St. Clair	3,080
	Pitt	2,441
	Pittsburg borough	4,768
	Moon	1,622
	Roberson	899
	Fayette	2,016
	Ross	1,327
	Pine	588
	Indiana	692
	Deer	674
	Ohio	832
	Plumb	1,174
	Versailles	883
	Elizabeth	2,368
		25,317
Armstrong.	Redbank	943
	Sugar Creek	1,113
	Toby	611
	Allegany	820
	Buffaloe	1,150
	Kittaning	1,197
	Kittaning town	309
		6,143
Fayette.	Connellsville borough	498
	Bullskin	1,439
	Tyrone	989
	Saltlick	994
	Dunbar	2,066
	Union borough	999
	Union	1,821
	Menallen	1,228
	Washington	2,160
	Franklin	1,623
	Wharton	922
	George	2,086
	Luzerne	1,538
	Bridgeport town	280
	Redstone	1,224
	Brownsville town	698
	Springhill	1,837
	New-Geneva town	233
	German	2,079
		24,714

Counties.	Townships, &c.	No. inh.
Greene.	Richhill	716
	Morris	944
	Dunkard	1,055
	Wayne	588
	Franklin	1,943
	Morgan	1,621
	Whitley	1,264
	Greene	1,708
	Jefferson	1,114
	Cumberland	1,591
		12,544
Somerset.	Somerset borough	489
	Somerset	1,548
	Berlin town	330
	Brother's Valley	1,314
	Stoy's town	170
	Quemahoning	1,392
	Salsbury town	40
	Elk Lick	1,118
	Milford	1,180
	Turkey Foot	975
	Stony Creek	943
	Addison	678
	Southampton	455
	Conemaugh	381
	Allegany	271
		11,284
Westmoreland.	Greensburg borough	685
	South-Huntingdon	1,656
	East-Huntingdon	1,267
	Mount Pleasant	1,780
	Rostrover	1,786
	Unity	2,174
	North-Huntingdon	2,345
	Donegal	2,147
	Hempfield	3,444
	Derry	2,380
	Salem	1,518
	Franklin	1,542
	Washington	1,695
	Fairfield	1,973
		26,392
Crawford.	Meadville town	457
	Mead	786
	Sadsbury	540
	Fairfield	421
	Fallowfield	551
	Shenango	727
	Conniott	285
	Beaver	236
	Kasawago	384
	Venango	434
	Rockdale	401
	Bloomfield	114
	Oil Creek	340
	Wayne	502
		6,178
Venango.	Cherrytree	391
	Sugar Creek	461
	French Creek	419
	Franklin town	159
	Scrubgrass	540
	Irwin	357
	Allegany	299
	Richland	434
		3,060
Warren.	Conewango	448
	Brokenstraw	379
		827
Mifflin.	Armagh	1,306
	Union	1,114
	Wayne	1,501
	Lack	1,165
	Fermanagh	1,954
	Lewistown borough	474
	Derry	1,341
	Milford	2,095
	Greenwood	1,182
		12,132
Centre.	Bellefonte borough	303
	Spring	1,550
	Patton	297
	Half Moon	561
	Walker	553
	Bald Eagle	1,146
	Howard	761
	Ferguson	1,066

Counties.	Townships, &c.	No. inh.
	Miles	1,069
	Haynes	1,791
	Potter	1,584
		10,681
Mercer.	Coolspring	521
	Mahoning	1,316
	Slippery Rock	789
	Wolf Creek	726
	Neshanoc	700
	Shenango	634
	Mercer	262
	Springfield	313
	Sandy Creek	327
	Sandy Lake	403
	French Creek	183
	Salem	470
	Delaware	218
	Pymatuning	376
	Lackawanac	379
	West-Salem	660
		8,277
Butler.	Butler	458
	Buffaloe	375
	Centre	742
	Cannaughquenesing	1,284
	Cranberry	543
	Clearfield	288
	Donegal	671
	Middlesex	568
	Mercer	588
	Muddy Creek	395
	Parker	399
	Slippery Rock	658
	Venango	377
		7,346
Lycoming.	Athens	759
	Ulster	627
	Burlington	661
	Smithfield	1,084
	Lycoming	795
	Pine Creek	397
	Mifflin	637
	Dunstable	515
	Bald Eagle	246

Counties.	Townships, &c.	No. inh.
	Wayne	340
	Nepanose	298
	Williamsport borough	344
	Loyalsoc	850
	Elkland	91
	Washington	675
	Shrewsbury	294
	Muncy	967
	Muncy Creek	1,426
		11,006
Tioga.	Tioga	803
	Delmar	884
		1,687
M'Kean. Potter.	Potter	29
		29
	Ceres	142
		142
Beaver.	North-Beaver	932
	Hanover	1,090
	Beaver borough	426
	Big Beaver	702
	Little Beaver	1,379
	North-Sewickly	1,323
	Shenango	679
	First Moon	1,035
	New-Sewickly	878
	Second Moon	1,245
	Ohio	1,128
	South-Beaver	1,351
		12,168
Erie.	Erie borough	394
	Waterford	162
	Remainder of the county	3,202
		3,758
Total in Pennsylvania		810,091
	Slaves	795

DELAWARE.

Counties.	Hundreds.	No. inh.
New-Castle.	Brandywine	2,257
	Christiana	6,698
	New-Castle	2,340
	Red Lyon	816
	Mill Creek	2,313
	Whiteclay Creek	1,701
	Pencader	1,865
	St. George's	2,880
	Appoquinimink	3,559
		24,429
Kent.	Duck Creek	3,690
	Little Creek	2,039
	St. Jones	1,458
	Motherkill	7,415
	Mispillion	5,893
		20,495

Counties.	Hundreds.	No. inh.
Sussex.	Baltimore, Dagaborough, Indian River, Lewes, Rehoboth, and Broadkill	10,107
	Cedar Creek	3,874
	Nanticoke	2,843
	Northwest Fork	3,297
	Broad Creek	3,789
	Little Creek	2,840
		27,750
	Total in Delaware	72,674
	Slaves	4,177

MARYLAND.

Counties, &c.	No. inh.
Allegany	6,909
Ann Arundel	26,668
Baltimore	29,255
City of Baltimore	35,583
Eastern precincts of Baltimore	4,050
Western precincts of Baltimore	6,922
Cecil	13,066
Calvert	8,005
Caroline	9,453
Charles	20,245
Dorchester	18,108
Frederick	34,437
Harford	21,258
Kent	11,450
Montgomery	17,980
Prince George's	20,589
Queen Ann	16,648
St. Mary's	12,794
Somerset	17,195
Talbot	14,230
Washington	18,730
Worcester	16,971
Total in Maryland	380,546
Slaves	111,502

VIRGINIA.

Counties, &c.	No. inh.
Accomac	15,743
Albemarle	18,268
Amelia	10,594
Amherst	10,548
Augusta	14,308
Bath	4,837
Bedford	16,148
Berkley	11,479
Botetourt	13,301
Brooke	5,843
Brunswick	15,411
Buckingham	20,059
Campbell	11,001
Caroline	17,544

Counties, &c.	No. inh.
Charles city	5,186
Charlotte	13,161
Chesterfield	9,979
Cumberland	9,992
Culpepper	18,967
Cabell	2,717
Dinwiddie	12,524
Elizabeth city	3,608
Essex	9.376
Faquier	22,689
Fairfax	13,111
Fluvanna	4.775
Frederick	22,574
Franklin	10.724
Gloucester	10,427
Goochland	10,203
Grayson	4,941
Greenbrier	5,914
Greensville	6,853
Giles	3,745
Halifax	22,133
Hampshire	9,784
Hanover	15,082
Hardy	5,525
Harrison	9,958
Henrico	9,945
Henry	5,611
Isle of White	9,186
James city	4,094
Jefferson	11,851
Kanhawa	3,866
King and Queen	10,988
King George	6,454
King William	9,285
Lancaster	5,592
Lee	4,694
Loudon	21,338
Louisa	11,900
Lunenberg	12,265
Madison	8,381
Mathews	4.227
Mecklenburg	18,453
Middlesex	4,414
Monongalia	12,793
Monroe	5,444
Montgomery	8,409
Mason	1,991
Nansemond	10,324
New-Kent	6,478
Norfolk	13,679
Northampton	7,474
Northumberland	8,308
Nottoway	9,278
Nelson	9,684
Onio	8,175
Orange	12,323
Patrick	4,695
Pendleton	4,239
Pitsylvania	17,172
Powhatan	8,073
Prince Edward	12,409
Princess Anne	9,498
Prince William	11,311
Prince George	8,050
Randolph	2,854
Richmond	6,214
Rockbridge	10,318
Rockingham	12,753
Russell	6,816
Shenandoah	13,646
Southampton	13,497
Spotsylvania	13,296
Stafford	9,830
Surry	6,855
Sussex	11,362
Tazewell	3,007
Warwick	1,835
Washington	12,136
Westmoreland	8,102
Wood	3,036
Wythe	8,356
York	5,187
City of Richmond	9,735
Norfolk borough	9,193
Petersburg	5,668
Total in Virginia	974,622
Slaves	392,518

OHIO.

Counties.	Towns.	No. inh.
Adams.	Bird	1,442
	Eagle	801
	Greene	393
	Huntingdon	1,375
	Jefferson	494
	Meigs	835
	Sprigg	1,664
	Tiffin	1,529
	Wayne	901
		9,434
Athens.	Alexander	765
	Ames	608
	Athens	840
	Troy	578
		2,791
Belmont.	Colerain	471
	Goshen	401
	Kirkwood	741
	Pease	1,379
	Pultney	645
	Richland	2,831
	Salem	376
	Union	1,514
	Warren	734
	Wheeling	656
	York	1,349
		11,097
Butler.	Fairfield	1,414
	Lemon	1,308
	Liberty	1,790
	Madison	1,228
	Milford	1,937
	Reily	737
	Ross	1,321
	St. Clair	1,180
	Wayne	1,135
		11,150
Cayahoga.	Cleaveland	547
	Columbia	205
	Euclid	283
	Huron	424
		1,459
Champaign	Bethel	484
	Boston	616
	Harmony	595
	Lake	480
	Mad River	1,008
	Salem	1,021
	Springfield	593
	Union	861
	Zane	645
		6,303
Clermont.	Clark	596
	Lewis	903
	Miami	1,679
	Ohio	1,803
	Pleasant	1,246
	Tate	969
	Washington	1,527
	Williamsburg	1,251
		9,965
Clinton.	Chester	1,254
	Richland	783
	Vernon	637
		2,674
Columbiana.	Beaver	483
	Butler	516
	Center	1,103
	Elk Run	787
	Fairfield	852
	Green	338
	Goshen	277
	Hanover	735
	Knox	481
	Madison	539
	Middleton	579
	St. Clair	1,003
	Salem	889
	Springfield	601
	Unity	827
	Wayne	377
	Yellow Creek	491
		10,878

Counties.	Towns.	No. inh.
Delaware.	Berkshire	284
	Delaware	200
	Liberty	206
	Marlborough	177
	Radnor	347
	Sunbury	621
	Union	165
		2,000
Fairfield.	Amanda	836
	Berne	976
	Bloom	839
	Clear Creek	1,126
	Greenfield	743
	Hocking	1,078
	Hopewell	478
	Liberty	440
	Pleasant	988
	Reading	789
	Richland	881
	Rush Creek	614
	Thorn	497
	Violet	382
	Walnut	694
		11,361
Fayette.	Green	490
	Jefferson	327
	Paint	534
	Union	503
		1,854
Franklin.	Franklin	916
	Hamilton	326
	Montgomery	556
	Plane	127
	Pleasant	159
	Sharon	450
	Truro	672
	Washington	280
		3,486
Gallia.	Gallipolis	448
	Green	421
	Huntingdon	333
	Kiges	387
	Letart	501
	Madison	170
	Ohio	350
	Racoon	295
	Salisbury	460
	Saline	262
	Union	367
	Wilkes	187
		4,181
Greene.	Bath	913
	Beaver	799
	Cesar's Creek	649
	Miami	794
	Sugar Creek	1,286
	Xenia	1,429
		5,870
Guernsey.	Buffalo	285
	Cambridge	474
	Madison	240
	Oxford	440
	Richland	227
	Seneca	300
	Westland	251
	Wheeling	175
	Wills	659
		3,051
Hamilton.	Anderson	1,358
	Cincinnati	2,540
	Colerain	1,958
	Columbia	2,051
	Crosby	981
	Green	916
	Miami	495
	Mill Creek	1,334
	Springfield	2,063
	Sycamore	1,552
	Whitewater	910
		15,258
Highland.	Brush Creek	551
	Fairfield	1,167
	Liberty	1,120
	Madison	450

Counties.	Towns.	No. inh.
	New-Market	97[illegible]
	Paint	77[illegible]
	Union	744
		5,766
Jefferson.	Archer	611
	Buffalo	696
	Cadiz	1,374
	Cross Creek	1,152
	Green	875
	Island Creek	884
	Knox	1,146
	Mount Pleasant	846
	Salem	912
	Short Creek	1,890
	Smithfield	1,228
	Springfield	746
	Steubenville	1,617
	Warren	2,[illegible]
	Wayne	1,161
		17,260
Knox.	Clinton	714
	Madison	138
	Morgan	388
	Union	431
	Wayne	478
		2,149
Licking.	Granville	674
	Bowlingreen	379
	Hanover	651
	Licking	632
	Newark	539
	Newton	602
	Union	375
		3,852
Madison.	Derby	257
	Deer Creek	255
	Jefferson	246
	Pleasant	328
	Stokes	267
	Union	250
		1,603
Miami.	Bethel	506
	Concord	679
	Elizabeth	730
	Newton	556
	Union	683
	Washington	787
		3,941
Montgomery.	Dayton	1,746
	German	1,256
	Jefferson	1,343
	Madison	426
	Randolph	936
	Washington	1,584
	Wayne	431
		7,722
Muskingum.	Falls	951
	Jefferson	962
	Licking	796
	Madison	1,112
	Newcastle	370
	Newton	802
	Salt Creek	389
	Springfield	919
	Tuscarawa	1,151
	Union	430
	Zanesville	2,154
		10,036
Pickaway.	Deer Creek	853
	Derby	475
	Harison	291
	Madison	406
	Pickaway	1,598
	Salt Creek	810
	Scioto	216
	Walnut	759
	Washington	974
	Wayne	742
		7,124
Portage.	Aurora	189
	Deerfield	394
	Franklin	230
	Hiram	171

Counties.	Towns.	No. inh.
	Hudson	793
	Mantua	243
	Palmira	249
	Roots	216
	Springfield	510
		2,995
Preble.	Eaton	115
	Hardin	802
	Jefferson	355
	Israel	394
	Somers	499
	Twin	719
	Washington	440
		3,304
Ross.	Buckskin	781
	Chilicothe	1,369
	Colerain	846
	Concord	1,277
	Deerfield	629
	Franklin	725
	Green	1,183
	Jefferson	1,456
	Lick	334
	Mifflin	445
	Paxton	661
	Peepee	670
	Scioto	840
	Springfield	972
	Twin	1,053
	Union	2,273
		15,514
Scioto.	Franklin	117
	Green	507
	Jefferson	258
	Madison	307
	Nile	396
	Seal	379
	Union	541
	Upper	496
	Wayne	398
		3,399

Counties.	Towns.	No. inh.
Stark.	Canton	846
	Killbuck	332
	Nimmishillen	385
	Osnaburg	301
	Plane	527
	Sandy	198
	Tuscarawa	145
		2,734
Trumbull.	Austin	440
	Boardman	343
	Bristol	202
	Brookfield	345
	Canfield	494
	Coitsville	429
	Ellsworth	212
	Fowler	224
	Green	559
	Hubbard	674
	Liberty	473
	Newton	490
	Poland	827
	Troy	239
	Vernon	606
	Vienna	234
	Warren	875
	Weathersfield	232
	Youngstown	773
		8,671
Tuscarawa.	Dover	461
	Goshen	520
	Laurence	298
	Nottingham	452
	Oneleg	610
	Oxford	271
	Salem	442
	Wayne	191
		3,045
Warren.	Deerfield	1,181
	Franklin	2,202
	Turtle Creek	3,442
	Hamilton	1,258
	Wayne	1,862
		9,925

Counties.	Towns.	No. inh.
Washington.	Adams	620
	Belpre	494
	Fearing	454
	Grand View	463
	Marietta	1,463
	Newport	328
	Roxbury	408
	Salem	248
	Warren	260
	Waterford	701
	Worcester	385
	Westey	172
		5,991

Counties.	Towns.	No. inh.
Geauga.	Ashtabula	221
	Burton	517
	Harpersfield	490
	Jefferson	168
	Kingsville	188
	Painesville	670
	Richfield	329
	Salem	334
		2,917
	Total in Ohio	230,760

KENTUCKY.

Towns, &c.	No. inh.	
Adair county	5,836	
Columbia	175	
		6,011
Barrin county	11,042	
Glasgow	244	
		11,286
Boone county	3,608	
		3,608
Bracken county	3,451	
Augusta	255	
		3,706
Breckenridge co.	3,430	
		3,430
Bourbon county	11,869	
Paris	838	
Millersburgh	238	
North part of do.	5,064	
		18,009
Butler county	2,181	
		2,181
Bullet county	4,311	
		4,311
Clarke county	10,981	
Winchester	538	
		11,519
Casey county	3,252	
Liberty	33	
		3,285
Campbell county	3,060	
Newport	413	
		3,473

Towns, &c.	No. inh.	
Christian county	10,889	
Hopkinsville	131	
		11,020
Cumberland co.	6,085	
Burksville	106	
		6,191
Clay county	2,398	
		2,398
Caldwell county	4,268	
		4,268
Estle county	2,082	
		2,082
Fayette county	8,039	
Lexington	4,326	
North part do.	9,005	
		21,370
Franklin county	6,914	
Frankfort	1,099	
		8,013
Fleming county	8,947	
		8,947
Floyd county	3,453	
Prestonsville	32	
		3,485
Gallatin county	3,159	
Port William	120	
Prestonsville	28	
		3,307
Greenup county	2,369	
		2,369
Green county	6,603	
Greensburg	132	
		6,735

Towns, &c.	No. inh.	
Grayson county	2,301	
		2,301
Garrard county	8,925	
Lancaster	260	
		9,186
Henry county	6,652	
Newcastle	125	
		6,777
Harrison county	7,383	
Cynthcana	369	
		7,752
Henderson county	4,544	
Henderson	159	
		4,703
Harden county	7,350	
Elizabeth town	181	
		7,531
Hopkins county	2,927	
Madisonville	37	
		2,964
Jessamine county	8,219	
Nicholasville	158	
		8,377
Jefferson county	11,611	
Louisville	1,357	
Shiping Port	98	
Middletown	241	
Brunerstown	92	
		13,399
Knox county	5,820	
Barboursville	55	
		5,875
Livingston county	3,575	
Smithland	99	
		3,674
Lewis county	2,357	
		2,357
Lincoln county	8,676	
		8,676
Logan county	11,591	
Russellville	532	
		12,123
Mason county	11,071	
Washington	815	
Maysville	335	
Mayslick	132	
Charlestown	21	
Germantown	36	
Lewisburgh	19	
Williamsburgh	30	
		12,459

Towns, &c.	No. inh.	
Mercer county	11,587	
Danville	432	
Harrodsburgh	313	
Shakertown	298	
		12,630
Madison county	15,106	
Richmond	366	
Boonsborough	68	
		15,540
Muhlenberg co.	4,106	
Greenville	75	
		4,181
Montgomery co.	12,650	
Mountsterling	325	
		12,975
Nicholas county	4,898	
		4,898
Nelson county	13,257	
Beardstown	821	
		14,078
Ohio county	3,682	
Hartford	110	
		3,792
Pulaski county	6,897	
		6,897
Pendleton county	2,940	
Falmouth	121	
		3,061
Rockcastle county	1,731	
		1,731
Scott county	11,890	
Georgetown	529	
		12,419
Shebby county	14,453	
Shebbyville	424	
		14,877
Wayne county	5,393	
Monticilio	37	
		5,430
Washington co.	12,999	
Springfield	249	
		13,248
Warren county	11,783	
Bolin Green	154	
		11,937
Woodford county	9,171	
Versailles	488	
		9,659
Total in Kentucky		406,511
Slaves		80,561

NORTH-CAROLINA.

Counties.	No. inh.	Counties.	No. inh.
Moore	6,367	Perquimons	6,052
Haywood	2,780	Richmond	6,695
Beaufort	7,203	Halifax	15,620
Cabarras	6,158	Chatham	12,977
Gates	5,965	Bladen	5,671
Surry	10,366	Wake	17,086
Franklin	10,166	Stokes	11,645
Washington	3,464	Pasquotank	7,674
Currituc	6,985	Cumberland	9,382
Green	4,867	Northampton	13,082
Granville	15,576	Wilks	9,054
Buncombe	9,277	Ash	3,694
Randolph	10,112	Lenoire	5,572
Montgomery	8,430	Wayne	8,687
Burke	11,007	Iredel	10,972
Edgecombe	12,423	Guilford	11,420
Bertie	11,218	Anson	8,831
Warren	11,004	Onslow	6,669
Columbus	3,022	Caswell	11,757
Rutherford	13,202	Person	6,642
Duplin	7,863	Nash	7,268
Rockingham	10,316	Orange	20,135
Robeson	7,528	Johnson	6,867
Martin	5,987	Chowan	5,297
Craven	12,676	Rowan	21,543
Brunswick	4,778	Hertford	6,052
Camden	5,347	Hyde	6,029
Pitt	9,169	Lincoln	16,359
New-Hanover	11,465	Mecklenburg	14,272
Sampson	6,620		
Carteret	4,823	Total in North-Carolina	555,500
Jones	4,968		
Tyrrel	3,364	Slaves	168,824

TENNESSEE.

District of East-Tennessee.

Counties.	No. inh.	Counties.	No. inh.
Sullivan	6,847	Knox	10,171
Carter	4,190	Sevier	4,595
Washington	7,740	Blount	8,839
Hawkins	7,643	Roane	5,581
Greene	9,713	Rhea	2,504
Cocke	5,154	Blount	3,259
Jefferson	7,309		
Grainger	6,397	Total in East-Tennessee	101,367
Claiborne	4,798		
Campbell	2,668	Slaves	9,376
Anderson	3,959		

District of West-Tennessee.

Counties.	No. inh.	Counties.	No. inh.
Bedford	8,242	Smith	11,649
Davidson	15,608	Stewart	4,262
Dickson	4,516	Wilson	11,952
Franklin	5,736	Williamson	13,153
Giles	4,546	White	4,028
Hickman	2,583	Warren	5,725
Humphries	1,511		
Jackson	5,401	Total in W. Tennessee	160,360
Lincoln	6,104		
Montgomery	8,021	Slaves	35,159
Maury	10,359		
Overton	5,643	Total in Tennessee	261,727
Robertson	7,270		
Rutherford	10,265	Slaves	44,535
Sumner	13,792		

SOUTH-CAROLINA.

Districts.	No. inh.	Districts.	No. inh.
Charleston city	24,711	Georgetown	15.679
Charleston	38,468	Chesterfield	5,564
Chester	11,479	Horry	4,349
Spartanburgh	14,259	Barnwell	12,280
Laurens	14,982	Abbeville	21,156
Marlborough	4,966	Kershaw	9,867
Union	10,995	Greenville	13,153
Fairfield	11,857	Orangeburgh	15,229
Pendleton	22,897	Sumter	19,054
Newberry	13,964	Beaufort	25,887
Marion	8,884	York	10,032
Lexington	6,641	Richland	9,027
Williamsburgh	6,871	Colleton	26,359
Lancaster	6,318		
Darlington	9,047	Total in South-Carolina	415,115
Edgefield	23,160		
		Slaves	196,365

GEORGIA.

Counties, &c.	No. inh.	Counties, &c.	No. inh.
Camden St. Mary's town Jefferson town	3,941	Chatham Savannah city	13,540
Glynn	3,417	Effingham Ebenezer town	2,585
Wayne	676	Bulloch	2,305
M'Intosh Darien town	3,739	Scriven Jacksonborough town	4,477
Liberty	6,228	Burke Waynesborough town	10,858
Bryan	2,827		

Counties, &c.	No. inh.
Jefferson Louisville town	6,111
Richmond Augusta city	6,189
Columbia	11,242
Lincoln Goshen town Lisbon town Lincolnton town	4,555
Elbert Petersburg town Elberton town	12,156
Franklin Carnesville town	10,815
Jackson Jefferson town	10,569
Walton	1,026
Clarke Athens town Watkinsville town	7,628
Oglethorpe Lexington town	12,297
Wilkes Washington town	14,887
Greene Greenesborough town	11,679
Hancock Sparta town	13,330
Warren Warrenton town	8,725
Washington	9,940
Montgomery	2,954
Tattnall	2,206
Telfair	744
Pulaski	2,093
Laurens	2,210
Twiggs	3,405
Wilkinson	2,154
Baldwin Milledgeville town	6,356
Jones Clinton town	8,597
Putnam Eatonton town	10,029
Morgan Madison town	8,369
Randolph Monticello town	7,573
Total in Georgia	252,433
Slaves	105,218

TERRITORY OF ORLEANS.

Counties.	Parishes.		No. inh.
Orleans	Parish of N. Orleans, viz. city and suburbs of N. Orleans and precincts of New-Orleans	24,552	27,121
	Parish of Placquemine	1,549	
	St. Bernard	1,020	
German coast	St. Charles	3,291	6,281
	St. John Baptiste	2,990	
	Total in 1st district	33,402	
Acadia	St. James	3,955	6,174
	Ascension	2,219	
Lafourche	Assumption	2,472	4,467
	Interior of Lafourche	1,995	
Ibberville	Ibberville	2,679	4,142
	Total in 2d district	13,320	
	Baton Rouge	1,463	
Point Coupee	Point Coupee	4,539	4,539
Concordia	Concordia	2,895	2,895
	Total in 3d district	8,897	

Counties.	Parishes.	No. inh.	
Ouachitta	Parish of Ouachitta	1,077	1,077
Rapides	Rapides	2,200	
	Catahula	1,164	4,573
	Avoyelles	1,209	
Natchitoches	Natchitoches	2,870	2,870
	Total in 4th district	8,520	
Opelousas	Opelousas	5,048	5,048
Attakapas	Attakapas	7,369	7,369
	Total in 5th district	12,417	
	Total in Territory of Orleans	76,556	
	Slaves	34,660	

MISSISIPPI TERRITORY.

Counties, &c.	No. inh.	Counties, &c.	No. inh.
City of Natchez		Washington	2,920
Town of Washington	10,002	Warren	1,114
Adams		Wayne	1,253
Baldwin	1,427	Wilkinson	5,068
Amite	4,750		
Claiborne	3,102	Total in Missisipi Ter.	40,352
Franklin	2,016		
Madison	4,699	Slaves	17,088
Jefferson	4,001		

TERRITORY OF LOUISIANA.

Districts, &c.	No. inh.	Districts, &c.	No. inh.
District of St. Charles	3,505	District of New-Madrid	2,103
District of St. Louis	5,667	Settlements of Hopefield and St. Francis	188
District of St. Genevieve	4,620	Settlements on the Arkansas	874
District of Cape Girardeau	3,888		
		Total in Territory of Louisiana	20,845
		Slaves	3,011

INDIANA TERRITORY.

	Towns, &c.	No. inh.		Towns, &c.	No. inh.
Dearborn Counties.	1st Township	478	Counties.	7th township	1,725
	2d do.	356		New-Purchase	194
	3d do.	491			7,511
	Lawrenceburgh	165			
	4th Township	880			
	5th do.	2,053	Clark.	Jeffersonville	239
	6th do.	969		Clarksville township	1,597

Counties.	Towns, &c.	No. inh.
	Springhill township	1,114
	Charlestown	110
	Springville township	1,392
	Madison township	1,218
		5,670
Harrison.	Harrison township	1,183
	Exeter township	1,155
		2,338
Knox. Harrison.	Washington township	1,257
		1,257
Knox.	White River township	974
	Wabash township	1,897
Counties.	Towns, &c.	No. inh.
	Ohio township	877
	Madison township	349
		4,097
Knox.	Town of Vincennes	670
	Vincennes township	223
	Harrison township	746
	Bosseron township	883
	Palmyra township	1,326
		3,848
	Total in Indiana Territory	24,520
	Slaves	237

ILLINOIS TERRITORY.

Counties.	Townships, &c.	No. inh.
St. Clair.	Goshen township	1,725
	Wood River do.	425
	Turkey Hill do.	1,151
	Fountain do.	251
	Eagle do.	384
	Cahokia do.	711
	Peoria do.	93
	Cape au Grai do.	29
	Priarie du Chien do.	238
		5,007
Randolph. Counties.	Townships, &c.	No. inh.
	Kaskaskia	622
	United States' Saline	845
	Shawanee town	830
	Residue of Randolph county	4,978
		7,275
	Total in Illinois Territory	12,282
	Slaves	168

TERRITORY OF MICHIGAN.

Civil Divisions.	No. inh.
Detroit, being the civil district of Detroit	2,227
Erie, being the civil district of Erie	1,340
Huron, being the civil district of Huron	580
Michilimackinac, being the civil district of Michilimackinac	615
Total in Territory of Michigan	4,762
Slaves	24

DISTRICT OF COLUMBIA.

Counties, &c.	No. inh.	Counties, &c.	No. inh.
Washington city	8,208	Alexandria	7,227
Georgetown	4,948	Alexandria county, exclusive of the town	1,325
Washington county, exclusive of the city and Georgetown	2,315	Total in Dist. of Columbia	24,023
		Slaves	5,395
		Total in all the states and territories	7,230,514
		Slaves	1,185,223

APPENDIX.

THE following information, relative to the infant manufactures of the United States, was received too late for insertion in its proper place, and is deemed too important to be omitted. It is inserted as received.

HUMPHREYSVILLE, so denominated by an act of the legislature of Connecticut, in honor of the founder, is situated on the Naugatuc, about four miles above its confluence with the Housatonic river. This is the head of tide water and navigation.

This village furnishes, at Kimmon falls, one of the finest and most commodious sites for manufactories in the United States.

The dam, which is principally formed of one rock, contains sufficient water in the driest seasons, to put in motion any number of wheels, that may be wanted at an unusually small expense. Fuel and provisions are cheap; hands for labour plenty, and not difficult to be obtained.

This village is remarkable for having been the first on this side the Atlantic, to produce merino wool in considerable quantities, as well as for having converted it into superfine cloths*, reputed equally good in every respect to any that has been imported.

The first flock of merinos ever landed in America, selected from some of the best flocks in Spanish Estremadura, in 1801, was brought to this place by the importer, COL. HUMPHREYS. In consequence of the early and judicious measures adopted for the spread of this breed, great numbers of fine-woolled sheep were propagated in almost every state and district of the union, previous to the irruption of the French armies into the southern peninsula of Europe. From this invasion, the destruction or dispersion of the celebrated *Cavannos*, and other flocks of Spain, both *Estantes* and *Fronshumantes*†, may be dated. In addition to this first flock and their immediate descendants, thousands of sheep of various degrees of fineness of pile, rescued, as it were by miracle, from the general devastation, have, since that invasion, been imported into America.

Spread over the country, from the borders of Canada to the banks of the Mississippi, as they have been, the soil, nourishment, and climate have every where proved friendly to their propagation. It has been demonstrated from experience, that they have no where degenerated.

The presence of the raw material for our woollen manufactures is no longer doubtful. How much this indispensible requisite may contribute to their success is not now to be discussed.

The southern and western parts of the United States, it is believed, will furnish large quantities for exportation, whenever trade shall again fortunately revive and flourish.

After the happy termination of our struggle for INDEPENDENCE, a wider and more profitable range for industry was opened in agri-

* See the report of the committee of the Philadelphia Premium Society, on awarding the first premium for superfine cloths.

† The terms by which the *stationary* and *moving* flocks are designated in Spain.

culture and commerce, than had been anticipated by its most enthusiastic votaries. Following these peaceful pursuits, from an impulse, and with an ardor peculiar to a new nation, buoyed by juvenile strength and vigorous spirits above all common obstacles, our neutral navigations continued to prosper, until all markets were in a manner, glutted with the produce of our labor in the earth.

At length the injustice of contending nations, each acting under the pretext of retaliating its wrongs on the other, checked our prosperity, added insults to injuries, and in the midst of accumulating evils, hardly left a choice that did not threaten to afflict us with still heavier losses, or involve us in still more inextricable difficulties.

This impolitic conduct, to say the best of it, has done more than almost any thing else, that could have happened at home or abroad, to induce and compel us to turn our attention to manufactures. If we had not been disturbed by the unprovoked depredations of the belligerents, we might have remained occupied in so gainful a career, with which we had so much reason to be satisfied.

Under these circumstances, the introduction and successful cultivation of the fine woolled breed of sheep from Spain, at a time when it is becoming almost extinct in that country, cannot fail to form a memorable epoch in the annals of America.

The legislature of Connecticut, appreciating the effort to unite the growth and manufacture of so valuable a staple, as that of merino wool, and sensible of the importance of this establishment, having at a former session, resolved that their thanks should be presented by the governor to the hon. DAVID HUMPHREYS, a native of that state, for his patriotic exertions in introducing the first flock of merinos into the United States, and for establishing various manufactures, did, in the year 1810, pass an act for incorporating the Humphreysville manufacturing company,* with a *capital* of $500,000 and a *credit* equal to the sum invested.

At present, the establishment consists of a cotton and woollen factory, including the business of weaving, dressing, and finishing broad and narrow cloths; and a number of stocking frames at work. Besides these, there is a paper manufactory, and also a grist mill and saw mill.

The first machine for spinning *wool* by water† that has been used with advantage in any country, so far as our information has extended, is here in daily operations, and promises to produce a very important change in manufactures, by abridging labor in the fabrication of woollen cloth. From the place of its invention, it is called the *Humphreysville spinster.*

One of these machines, having 64 spindles, attended by one woman and a child, spins in a day the warp for sixty yards of super-

* By a reference to these legislative proceedings, it will be seen, that the protections, privileges, and immunities granted to this establishment, afford a pleasing proof of the enlightened patriotism of that state.

† This machine was invented by, and is secured to, MR. WILLIAM HUMPHREYS, from whom the right of constructing may be obtained (as we understand) for one dollar for each spindle. A machine with 12 spindles will perform as much, in a family, as a jenny of 40 spindles, and without requiring any peculiar skill in the attendant.

fine broad cloth, ten quarters wide, when it comes from the loom. It is asserted by the weavers and clothiers, that no better yarn can be spun.

For the purpose of giving some idea of the leading objects in the management of these institutions, in regard to morals, education, instruction and economy, we insert the following interesting document, copied from the *Connecticut Herald* of Jan. 14, 1812.

"Humphreysville Jan. 9. 1812.

We the subscribers have visited the establishment and school of the Humphreysville manufacturing company, and found the following facts, in our best judgement, worthy of notice.

In the course of the last year considerable additions have been made to the buildings and machinery, particularly in the woollen department.

The machines for abridging labor, lately introduced, are those of Molleneaux for shearing cloth, of Richards for cutting dye-woods, and one for brushing and finishing cloth.

A patent has been obtained by Mr. William Humphreys of this place, for a machine invented by him, for spinning wool and various other substances, by water or other powers. This we have seen in operation, and we are confident that it will answer the purpose for which it is intended perfectly well. We believe that this invention will be of the greatest utility in families as well as in factories. The machine is easily tended by a child or person who does not understand spinning on the common wheel or jenny. The staple in being drawn and twisted into *yarn*, has less tendency to break than in any other mode of spinning wool which we have seen.

This continuity of line, which we understand cannot be preserved by the processes of the mule, water-frame, throstle, or any other machine heretofore in use, has hitherto been a desideratum in all countries. How it is effected, principally by means of a gig with a horizontal bobbin which untwists the rovelings, and a card-roller, which gives the feed regularly to the spindles, it is not within the limits of our province to describe. We have not seen woollen yarn made by any other process which was more even or fine, or which appeared to have better felting qualities.

We have examined some beautiful broadcloths made here, and have reason to think they have rarely been exceeded in goodness in any respect.

The number of hands employed during the last year, has been greater than in any preceding years. Of the manufacturers and work people, there are several from England, Scotland, Ireland, and France. It is with pleasure we learned that the foreigners (a number of whom have lately arrived in this country) have been remarkable for their sobriety, diligence, and attention to their several employments.

Satisfactory testimonials have been adduced of the good behaviour of the women and children.

The apprentices and a few others, composing the school, having changed their working clothes for a handsome uniform apparel, repaired to the school room, and went through an examination

to the credit of themselves and their instructor Mr. John Ward. He has been employed during the year past for their instruction. In spelling, reading, writing, and in arithmetic, the different classes have made a very commendable proficiency.

Premiums in books, money, and other articles were adjudged to several in each class.

Rewards were given for acquirements of skill in carding, spinning, weaving, and dressing cloth.

A laudable spirit of emulation is conspicuous in the hired people and apprentices.

We were informed that the blessing of health had been continued. No person belonging to the factory had died since its first establishmeut. Not one the year past, has been sick of a fever. No serious injury had been experienced from any accident. Every person was able to perform the duty assigned, this day.

So signal a favor may be attributed, under providence, to the salubrity of the situation, to the wholesome diet, cleanliness in person, pure air in the apartments, and regular habits. We could not but observe that the lodging rooms and beds were particularly clean and comfortable All go to rest early. All rise betimes and go to work in the morning.

Negligence and idleness are discouraged. The labor at stated hours, is easy ; but must be performed. There has not been for some time past a single *bad subject* on the *black list*.

Rewards and encouragements of various kinds have nearly superseded the necessity of punishments ; if we except that of *disgrace*, which is found to be the most efficacious.

The apprentices appear extremely well satisfied with their condition, being well fed, clothed and lodged, like the members of a well regulated and happy family. The things necessary for them are seasonably and regularly supplied ; the attempt being made to introduce the system of economy. All *waste is severely frowned on.*

Silence and order prevails no where in a greater degree than here, at meal times and in school.

The monitors of classes are invested with a due authority, and are subjected to a proportionate responsibility.

Cheerfulness and innocent gaiety are promoted as much as possible.

Regulated by these principles and practices, we are of opinion that manufacturing establishments, instead of being productive of drunkenness, debauchery, and vice, may become nurseries of sobriety, diligence, and virtue.

Signed by 17 gentlemen of respectability, residing in the vicinity of these works.

☞ The author regrets that it has not been in his power to procure from correct official sources the information necessary to enable him to fill some blanks in pages 206, 207, and 219, and also to supply deficiencies in the description of most of the states, in respect to their manufactures. The public documents proposed to be published by congress, on these subjects, have not yet appeared.

INDEX

TO VOLUME I.

DIRECTIONS TO THE BOOK-BINDER FOR PLACING THE MAPS.

VOL. I.		VOL. II.	
World, to face the title	Page	Europe, to face the title	Page
North-America	136	Asia	434
South-America	712	Africa	753

END OF VOLUME I.