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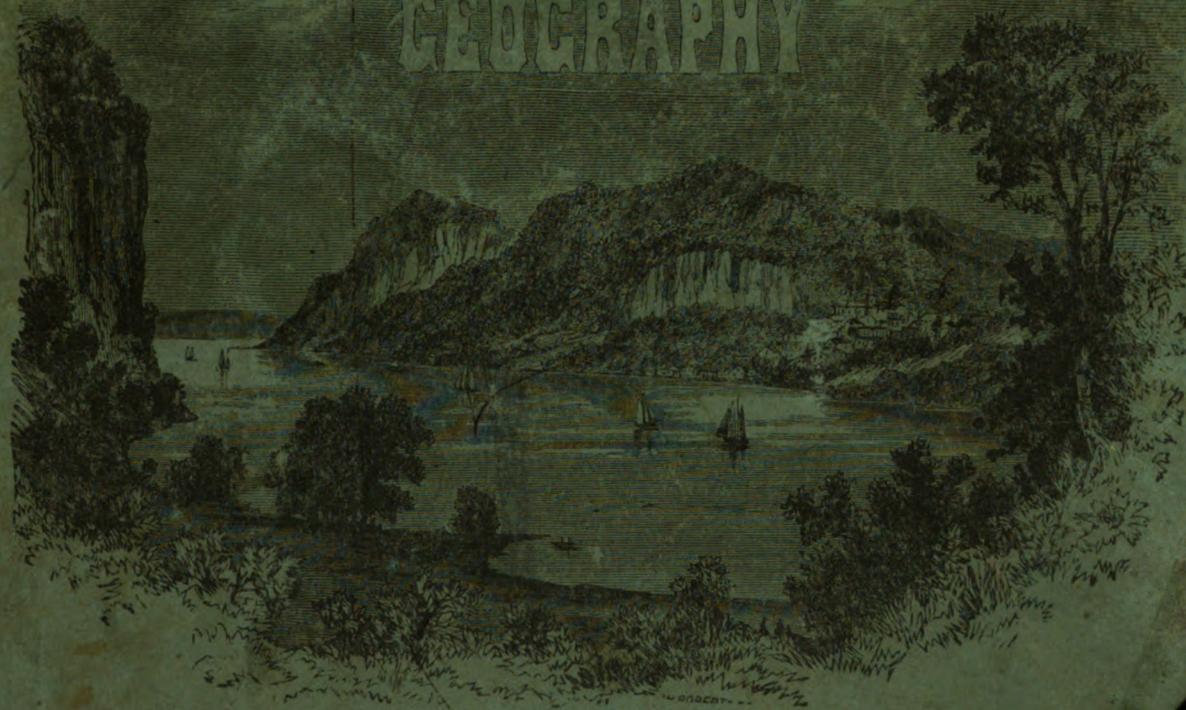
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GEOGRAPHICAL SERIES

INTERMEDIATE

GEOGRAPHY



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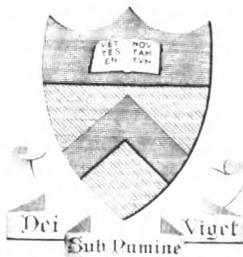
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GUYOT'S GEOGRAPHICAL SERIES.

Arnold Henry

THE EARTH
AND ITS INHABITANTS.

INTERMEDIATE
GEOGRAPHY.



NEW YORK:
SCRIBNER, ARMSTRONG, AND COMPANY, 743-745 BROADWAY.
HADLEY BROTHERS & CO., CHICAGO, ILL.
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TO TEACHERS AND FRIENDS OF EDUCATION.

IN introducing the "Intermediate Geography" to the educational public, I cannot do better than repeat the thoughts embodied in the introduction of the books of the series published a year since.

The great lack of a real and lasting success in the study of Geography, with the methods now in use in most of our public and private schools, is acknowledged and deplored by all the enlightened friends of public education. It clearly indicates the necessity of adopting another method than that hitherto followed.

During more than nine years it was my privilege to address thousands of teachers in the normal schools of Massachusetts and New Jersey, and in the Teachers' Institutes, on the subject of geographical teaching, and on the reform so much needed in that important department of instruction. To answer their eager and repeated request, I promised my earnest efforts to furnish them with the appropriate instrumentalities, maps and books, needed for carrying out successfully the plan and the method of teaching Geography which I so strenuously recommended to them.

This pledge I have begun to redeem by offering to them, and to all their fellow-laborers in the noble field of public education, the first and most important instrument in that department of knowledge, a series of physical and political wall-maps, without which the best books would be of little avail. These maps, the aim of which is to picture to the eye, in a bold manner, the grand and characteristic traits of the physical structure of the continents, and their relations to the political divisions of the globe, have been constructed entirely anew from all the geographical materials made public up to the date of their issue. They have been published in the best style, without regard to expense, by Messrs. Charles Scribner & Co., in three different series, adapted to the various sizes of school-rooms. As the whole method which I so strongly advocate requires them to be the starting-point and the base of all geographical instruction, they were needed first; for without such maps, true geographical teaching is simply impossible.

The second part of the task which I have assumed, is the publication of a series of graded geographical text-books, which are to accompany, and to explain the map-work, and to give, in addition, such information respecting the various countries of the globe, and their inhabitants, as the maps cannot furnish. The performance of this most important work is begun by the issue of the "Introduction to the Study of Geography," the "Elementary Geography for Primary Classes," the "Intermediate Geography," and the "Common School Geography." This "Intermediate Geography" is designed either as a course in itself for pupils who leave school very early, or as a preparation for the study of the "Common

School Geography," where teachers desire such preparatory course.

As to the method employed in this series, and the principles upon which it rests, I may be permitted to refer the friends of education to a work especially devoted to this subject.* Here, a few words will suffice.

The nature of our mind is such, that the acquisition of knowledge is always gradual. That gradual progress, whatever be the object of our study, has three main stages. We first take a general outside view of the object, or of the field to be studied; we then fairly go into the study of all its parts; last of all, we derive from this thorough analysis the means of rising to the knowledge of the laws and principles which regulate and pervade the whole, and we combine all its elements in a well-connected organization, in which the mutual dependence of all the parts, and their coöperation to a final end, are clearly understood. The first stage, especially in the study of the globe, and in all the sciences of observation, may be called the *perceptive* stage; the second, the *analytic*; the third, the *synthetic*. The first is preparatory; the second constitutes the bulk of the study; the third is the scientific and final stage of perfected knowledge.

It is obvious that in each of the three stages the powers of the mind which are called into prominent action are not the same. The simple power of perception through the senses, predominates in the first; the analytic understanding in the second; the power of generalization in the third. This successive predominance being precisely the same which obtains in the successive phases of development of the mind during the period of education, in its beginning, middle and end, the mode of presenting the subject must be considerably modified at each of these steps in accordance with those invariable psychological laws.

The various geographical topics also must be presented in each grade in such an order as will enable the pupil to grasp them intelligently, in their natural connection. Here, the order of natural dependence is the rule to be followed: the forms of contour and relief, without which the drainage of a country cannot be understood, before the study of the river systems; the climate before the distribution of plants and animals which it controls; the geography of nature before the geography of man, ethnographical, political, and statistical, which is regulated by the former. Thus each order of facts becomes a sure stepping-stone for the intelligent study of the next.

To disregard either of these two great principles is to

* "Geographical Teaching, as illustrated by Guyot's Geographical Series of Text-books and Wall-maps," published by Charles Scribner & Co., New York. Also to be found in the Common School Geography, Teacher's Edition.

insure certain failure. For then, bare memory, unintelligent, and, therefore, not retentive, is the sole dependence of the pupil. That wonderful power, instead of being the useful servant it is intended to be, is the sole master and despot of the pupil's mind. He is thus put back into that purely mechanical memorizing which makes his knowledge a burden, and of instruction nothing remains but the most empty and passing show.

The thorough study of the map, on the wall and in the book, and the mastering of it so as to engrave, so to speak, its image in the mind of the pupil in strong and deeply-cut outlines, never to be effaced, is, and must remain, the prominent object of a preparatory course. With this result obtained, everything is gained, and a solid foundation is laid for the future edifice of his geographical knowledge; for he will have a well-prepared frame, within which every new fact will readily find its appropriate and lasting place. Without it, nothing but a loose and baseless fabric can ever be reared on a ground so poorly prepared.

Experience has shown that the constructive method recommended, and carried out in both the "Intermediate" and the "Common School Geography" is the most effective means of accomplishing this end. If the teacher anticipates difficulty for the pupils, let him dismiss all such apprehensions, and know that the process has been thoroughly tried. Let him learn that, well conducted, that part of the course is grasped by the younger pupils with more eagerness and success than any other. Let, therefore, weeks of drilling be spent, if need be, on these exercises, and the result will reward both teacher and pupils.

With regard to the books destined for the young, the difficulty which I apprehended in presenting the subject in language appropriate for children of that age, was providentially obviated. I was fortunate enough to be able to procure for that object the coöperation of Mrs. MARY H. SMITH, whose remarkable success as a teacher of geography in the Normal and Training School of Oswego, is well known to a large number of prominent friends of education. Thoroughly imbued with the spirit of the Pestalozzian method, she was prepared fully to enter into my views, and she did so with a zeal and an ability which are to me a source of great gratification. She consented to become my private pupil, and during over eighteen months which she spent under my roof, I readily yielded the pen to one so familiar with children's minds and language, and so thoroughly conversant with the habits and the wants of the schoolroom. These books were written under my eye, and passed under my final revision. For that timely and useful help, I am happy to return to her my public thanks.

The "CONSTRUCTIVE METHOD" of map drawing, given in the "Intermediate Geog." in its most simple form, and in the "Common School Geog." with more

completeness of detail, is, like other improvements in geographical teaching, European in origin. It was invented by Prof. Swen Ågren of the Swedish Military Academy at Carlberg, near Stockholm, and first published in 1832 at Berlin.

Swen Ågren's plan consisted in memorizing the latitude and longitude of the extreme point of every considerable indentation or projection along the coast; fixing these points upon a network of parallels and meridians; and finally connecting them by the coast lines. At the end of their two years' course his pupils could draw from memory every continent, never varying more than *one-half degree* from the exact latitude and longitude of every point in the contour.

The approval of this method by Ritter, who was already the acknowledged authority in all questions of geographical science or geographical teaching, caused its introduction into the schools of Germany. Its use resulted in various modifications of the original plan by the professors who employed it. Among the best are those published in 1835-38, by Baron d. Canstein, pupil of Ritter at the Military Academy of Berlin, and Lohsé, whose work appeared with an introduction by Ritter.

Lohsé's plan differed from that of Swen Ågren mainly in selecting fewer points to be memorized. He also presented on the same page with the outline resulting from connecting them, the *same points without their connecting lines*, leaving to the pupil the task of finding out the proper manner of uniting them.

De Canstein's plan introduced a new feature suggested by Ritter's habit of tracing before his classes the characteristic *lines of relief* in the continent he was discussing. These lines producing a geometrical figure, oftenest a triangle, it occurred to his pupil to employ these figures in drawing the contour of the continent. His method then is characterized by the *reduction of the continents and their countries to geometric forms*, memorizing the latitude and longitude of the angles of those forms only, and *finding the principal points in the contour by bisecting and trisecting the sides of the geometrical forms*. The triangle naturally is the figure he most employs; but the trapezium, as in Asia, the circle, as in Russia, and the hexagon, as in France, also occur.

My own modification made during the same decade, and employed both in Germany and Switzerland, differs in *idea and purpose* from those of my colleagues. They desired simply to procure the means of *drawing with accuracy*, the contours of continents and countries. I seek to exhibit to the eye of my pupils the *special form characterizing each continent as a distinct individual*. I therefore neither mark each indentation and projection of the coast, nor reduce the continent to geometric figures. As the external form is the outgrowth of the relief or structure, I first trace the lines of structure giving the *fundamental form* of the continent (see C. S. Geog., page 19, 32, &c.) I then reject from the outline every point which does not mark either a projecting or reëntrant angle of the form peculiar to the continent. Thus, in South America, I mark simply C. Gallinas and C. St. Roque; Punta Aguja and C. St. Thome; Gulf of Arica and Gulf of Paranaguá, with Cape Froward. These points connected exhibit the figure characteristic of this continent, and found nowhere else.

In the "Intermediate Geography" the *fundamental form* is not exhibited, since with pupils of this grade the attention is confined to the external figure alone.

Map drawing, then, in my method, becomes *simply a means of fixing this figure*, and the internal features of the continent, upon the memory; not an end in itself, as is the case with others.

In my European teaching, which was with the more advanced classes, I fixed these points, and those of the fundamental form, in their true relative position by means of latitude and longitude. In the employment of the method in my Geographies, where it is presented to pupils who have not the knowledge necessary to trace parallels and meridians with mathematical accuracy, some other means of fixing these points was necessitated. For this purpose I employ a series of horizontal and vertical lines, which have a constant common measure, thus exhibiting the proportionate length and breadth of the continents and individual States, and effectually impressing these proportions upon the memory. This modification of my method was devised by Mrs. Mary Howe Smith, and first employed in her Oswego classes.

A. GUYOT.

PRINCETON, N. J., May 25th, 1867.

QUESTIONS AND EXERCISES FOR REVIEWS AND EXAMINATIONS.

NOTE.—No questions for use in daily recitation accompany the text, as none are needed. In each paragraph, the words expressing its prominent idea are either in **bold-face** type, or in *italic*, and themselves suggest the question to be asked.

Teachers should also train their pupils to give the substance of the lesson without questions—the topics in bold type being alone announced by the teacher.

INTRODUCTION, pages 7 to 18.—What does geography teach? What is the form of the earth? What is meant by the surface of the earth? Of what does the surface of the earth consist? Of what use is each? What surrounds the earth? Of what use is it? How is the earth warmed and lighted? How much of the earth's surface can be lighted at once? By what means is every part lighted? How much time is needed for the earth to turn round once? What does the turning produce? What other motion has the earth? What difference does this cause in the different parts of the year? How many and what seasons have we?

What is the most northern point on the earth's surface called? The most southern point? How can you tell which way is North? South? East? West? What are the directions midway between these? What is the globe, and what does it show us? What is a hemisphere? What are the opposite halves of the earth's surface called? What besides the globe is used to represent the earth's surface in the study of geography? Of what use are maps? What part of the map is North? South? East? West? How much of the earth's surface is land? How much is covered by water? What is meant by the Old World and the New World? How do they compare in size? What is meant by the *Continents*? How many in the New World? How many in the Old? How are the Continents placed together? Name them in the order of their size. What is a coast? A peninsula? A cape? A promontory? An isthmus? An island? What is meant by the *sea*? What by the *oceans*? How many, and where are the great oceans? The lesser oceans? Name the parts of the ocean found along the coast. Define each.

What is the difference between the surface of the land and that of the *sea*? Name the different classes of land-surface. Define each. What is the difference between a plain and a valley? Between a plain and a plateau? Between a plateau and a mountain range? What is a volcano? How are the different kinds of surface represented upon the maps of this book? In what forms does water occur on the surface of the lands? Define each. What is meant by the foot, head, and shore of a lake? Define the different parts of a river. Of what use are rivers? What kind of rivers are best for water-power? For navigation? Define a river-basin. A system of rivers. A water-shed.

What is meant by climate? What by a cold climate? A warm or hot climate? A temperate climate? In which do you live? Where is the hottest part of the earth, and what is it called? The coldest parts? The temperate parts? What is meant by vegetation? What does vegetation require? If two countries are alike in warmth and moisture, how will they compare in vegetation? What are the principal occupations of men? Define each. Why are they carried on? What does each furnish us? What surface is best suited to each? Which occupations are most profitable on the rough, poor lands? What is commerce, and why is it carried on? Name and define the different kinds of commerce. What occupations are carried on in cities? Where and how do commercial cities grow up? Manufacturing cities? Review map questions on pages 12, 13.

SOUTH AMERICA.—By what oceans is South America surrounded? Name its *capes*, *gulfs*, and *bays*, beginning at C. Gallinas and passing to the right. Name, in the same order, the islands on or near the coast.

NOTE.—Review, *without drawing*, the map studies on page 21, commencing at "Rivers and Lakes."

Of what regions does South America consist? Describe the Andes mountain system. The table land of Brazil. The central plains. Where is the mountain land of Guiana? Into how many systems are the rivers of South America combined? Describe the Amazon. What is the climate of South America? Which portions are cool? How is the continent supplied with moisture? What are its seasons? How does South America compare in vegetation with the other continent? Why is this? Describe the vegetation and animals of the Selvas. The Llanos. The Pampas. Why are these plains so different in appearance at the different seasons? Describe the vegetation of the Andes. Why does the vegetation constantly decrease the higher we go? Where are the cultivated lands? What do they produce? Why are not the Llanos and Pampas cultivated? Describe the native people of South America. From what countries did the white inhabitants come?

Name each country of South America, and its capital, beginning at the most northern, and passing to the right around the coast. What valuable mines in the countries which border the Pacific? Where are most of the large cities of these countries situated? Why are they there? Where is Valparaiso? Callao? What can you obtain from each? Where is Cartagena? Guayaquil? La Paz? What is the principal commercial city on the Pacific coast? Where are the principal cities of Brazil? What can you obtain from each? What important cities on the La Plata River? What can you obtain from these places? Why?

Draw a map of South America, and locate all the mountains, rivers, and cities noticed in this exercise.

NORTH AMERICA.—By what oceans is North America surrounded? Name the *capes*, *peninsulas*, *gulfs*, and *bays* along its coast, commencing at C. Prince of Wales, and passing to the right. Name, in the same order, its principal islands.

NOTE.—Review, *without drawing*, the map studies on pages 25 and 27, commencing at "Contour drawn and described."

Of what regions does North America consist? Describe the Pacific highland. The Atlantic highland. The central plain. What is remarkable about the rivers and lakes of North America? What advantage are they to the continent? Describe the climate of the southern portions of North America. Describe their forests. Their cultivated lands. Describe the climate of the middle portions. Describe the forests of this region. What are the prairies? What do the cultivated lands produce? How does the high plateau of the West differ in climate and vegetation from the low lands? Why is this difference? What animals are found in the forest regions? Describe the Arctic regions. Who are the native people of North America? How do they live? From what countries did the white settlers of the continent come? What kind of countries are Alaska, and Danish America? With what countries does British America trade? What are its principal exports? Of what do Mexico and Central America consist? What are the leading exports of these countries? Why not export agricultural productions? To what countries do Cuba, Porto Rico, and Jamaica belong? What are the principal exports of the Antilles? What are the principal agricultural productions of the United States? The most abundant minerals? Name the largest nine cities of the United States.

Draw a map of North America, locating its principal islands, mountains, rivers, countries, and cities. What and where are the settled portions of British America?

AFRICA.—By what waters is Africa surrounded? How is it connected with Asia? Name its *capes*, *gulfs*, and *bays* along the coast, commencing at C. Bon.

NOTE.—Review, *without drawing*, the map studies on pages 31 and 33, from "Islands."

Describe the surface of Africa. What can you say of its mountains? Of the interior? Of its rivers and lakes? What is remarkable about the Nile? What is remarkable about the climate and animals of Africa? Why is it so hot? Describe the part of the continent between L. Tchad and the Atlas Mountains. That between L. Tchad and the Zambesi. The plains south of the Zambesi. C. Colony and the Atlas regions. What people inhabit Africa? What can you say about the countries of Africa? For what is Egypt famous? How do the people of Sahara live? Why do they wander about? Why is there so little vegetation in Sahara? How is commerce across the Sahara carried on? Where and why have colonies been formed in Africa? What can you say of the countries in the interior of Africa? What are the principal exports of Africa? Why these articles only?

Draw a map of Africa, locating its principal islands, mountains, lakes, rivers, and cities.

AUSTRALIA.—By what oceans is Australia surrounded? Name the capes and waters along its coast. Name the islands surrounding Australia. (Review, *without drawing*, the map studies on page 36, commencing at "D.—CONTOUR DRAWN.")

Describe the surface of Australia. What can you say of its rivers and lakes? Describe the climate. Which part is the warmer, and why? Describe the vegetation and animals of Australia. What minerals abound in Australia, and where are they found? What can you say of its native people? To what country does it belong?

Draw a map of Australia, locating its principal islands, mountains, rivers, colonies, and cities.

ASIA.—By what oceans is Asia surrounded? With what continents is it connected?

NOTE.—Review, *without drawing*, the map studies on page 39.

Describe the surface of Asia. What is remarkable about the mountains of Asia? Where are the largest rivers of Asia? What can you say about its lakes? Describe the climate of Asia in regard to heat. Which are the moist portions of Asia, and what is the character of their vegetation? Describe the interior of Asia. Why is it so dry and barren? What animals are supposed to be natives of this region? What is the character of the northern part of Asia, and why? What constitutes Siberia, and what is the value of it? Of what does the Chinese Empire consist? What does India include, and to what country does it belong? Name the countries of Western Asia, and describe the position of each. Where is the Empire of Japan? Which of all the countries of Asia are most important? What valuable articles does each furnish? What can you say of the number of people and cities in these countries? Which are the most important countries of Western Asia? What can be obtained from these countries? How do the people live in the very dry countries of Asia? Why should they not carry on agriculture, build cities, etc., as do the people in the other countries? Describe the appearance of the Asiatic people?

Draw a map of Asia, locating its principal islands, mountains, rivers, countries, and cities.

EUROPE.—(Review, *without drawing*, the questions on pages 43, 45, and 49.)

Describe the surface of Europe. What can you say about its rivers and lakes? Describe the climate of Europe. Describe the forests of Europe. What plants are cultivated in Southern Europe? What in Middle and Northern Europe? What wild animals abound in Europe? How and why does Eastern Europe differ in climate from Western Europe?

What part of Europe is included in Russia? Where are its forests? Its cultivated lands? Its cities? Why should this be the case? Name the leading cities of Russia? For what are the Scandinavian countries noted? Of what does Denmark consist? What kind of land in Holland? What kind of a country is Switzerland? To what is the name *Germany* given? What are the principal productions of Prussia? What important mines has Austria? Name the principal cities of Prussia. Those of Austria. Those of the small German States. What can you say about Italy? Name its leading cities. For what is each noted?

What is the nature of the interior of Spain? Of what does Portugal consist? Name the principal cities of each country. What is the extent of France? What are its leading minerals and agricultural productions? What is its rank as a commercial and manufacturing country? Name some of its leading exports. Name its principal cities. For what is each important? What countries are included in the British Isles? Of what lands does England consist? What do its plains produce? Its mines? What is the rank of England in commerce and manufacturing? What are the leading exports and imports of the country? Why is this the case? Name the leading cities of England. For what is each remarkable? What is the nature of Ireland? Of Scotland? What important manufactures carried on in each? Name the leading cities of Scotland. Those of Ireland! Which are the most important countries of Europe? What are they usually called?

UNITED STATES.—**NOTE.**—(Review map studies, pages 52 and 53.) What is the position and extent of the United States? Describe the coasts. What does the country include? What advantage does it derive from its great streams and long line of coast? Describe the climate of the United States in regard to temperature. How is the country divided in regard to moisture? Give some reasons for this difference.

Describe the vegetation of the eastern half of the country. What of its animals? What is the general character of the dry western lands in regard to vegetation? Describe the high plains east of the Rocky Mountains. Describe the vegetation of these mountains. What animals are found in the Sierra Nevada? Describe the plateau between the Rocky and Sierra Nevada Mountains. Describe the region west of the Sierra Nevada.

What are the leading occupations in the United States? Where are they carried on? What are the leading agricultural productions? Where is each most abundantly produced? What are the grazing products? What are the principal mineral productions of the United States, and where is each obtained? Where is manufacturing most important, and what does it produce? What can you say in regard to the commerce of the United States? What are the chief exports and imports? Review also questions on pp. 56 and 57.

NOTE.—For Reviews on the several States, employ the "Map Studies," pages 59, 64, and 74; require an outline of each State, or group of States (see pp. 92, 93), drawn, and let there be placed within it the objects enumerated in paragraph II. of each State.

For Reviews in "Exact Geographical Position," require definitions of the various lines and circles, with their use; then employ the exercises on page 85.

P R E F A C E .

THE most elementary, as well as being among the most fundamental, of geographical ideas, are *ideas of form and location*. These when presented, by means of a personal examination of the Globe and proper maps, are matters merely of *perception and memory*, while the imagination may be pleasantly and most profitably exercised in imparting a life-like reality to these symbols.

To *prepare the imagination* for this work, by filling it with vivid pictures of nature under a variety of conditions, is the object of the book of this series entitled "Primary, or Introduction to the Study of Geography."

The study of the *form* of the Earth, and the *location* of the Continents upon its surface; the *form* of the continents and the *location* of their mountain ranges, rivers, lakes, and countries; the *form* of countries and the *location* of their physical features, cities, and towns; these studies make the great bulk of the Intermediate Geography.

Minuteness of observation being the only means of impressing these ideas distinctly and permanently upon the memory, the *distinctive method* of this book is *entirely* directed to securing such observation.

The means employed are, *First: Constructive map-drawing*; * *Second: a series of questions upon each map which compels careful examination of it, and associates together those objects which are associated in nature either by dependence, similarity, or contrast, thus securing the strongest possible aids to memory of form and location.*

The method of map-drawing here employed furnishes to every pupil, irrespective of any special taste for drawing, the means of making *an accurate map*, provided only that he has given proper attention to what is told him. It thus furnishes the most *practicable and thorough test* of faithfulness in his work of preparing the lesson, and as such should constantly be employed. A feature of every recitation should be drawing, from memory alone, that portion of the map which constitutes the lesson for the day, in at least *one* of the several methods indicated in the "Note" on page 19.

The constructive method of drawing the continents, as carried out in the Intermediate, does not exhibit the "fundamental form" of the continent, as in the Common School Geography. The reason for this is that in this book we do not call attention to the external form as being the "outgrowth of the *relief* of the continent," but seek merely to impress upon the memory the characteristic external form of each continent *as it strikes the eye*. There is also less of detail in the contours of the continents, only the most

strongly marked lines and proportions being exhibited. In *Asia* the *fundamental form* of the continent is given instead of the lines of contour, as being in itself the best expression of the external form which could be given without more detail than is consistent in this grade.

A very marked feature of the Intermediate Geography is the employment of the constructive method in studying the external form, proportions and size, of the individual States of our own country. The value of this study, both for the facts it impresses upon the memory, and as a means of educating the *eye* to the perception, and the *hand* to the accurate delineation of form, can scarcely be over estimated.

To this truly elementary work, which constitutes by far the greater portion of this book, are added a few of the most striking facts in regard to the conformation, climate, and vegetation of each continent; and the productions, population, and relative importance of individual countries. These exercise the mind in a different direction, thus furnishing a pleasing variety in study; discipline the mental powers to be exercised in case a more extended course in geography is to be taken; and prepare the pupil intelligently to receive, classify, and retain the various items of geographical knowledge to be gained by miscellaneous reading, lectures, &c., in after life. These facts are also intrinsically important to the pupil, and give a completeness to this book which makes it a manual, entire in all its parts, for those who must leave school at a very early age.

Another feature characteristic of this book is the final study of the *absolute geographical position* of the continents, chief countries, and leading cities of the globe, by means of latitude and longitude, the common neglect of which is greatly to be regretted.

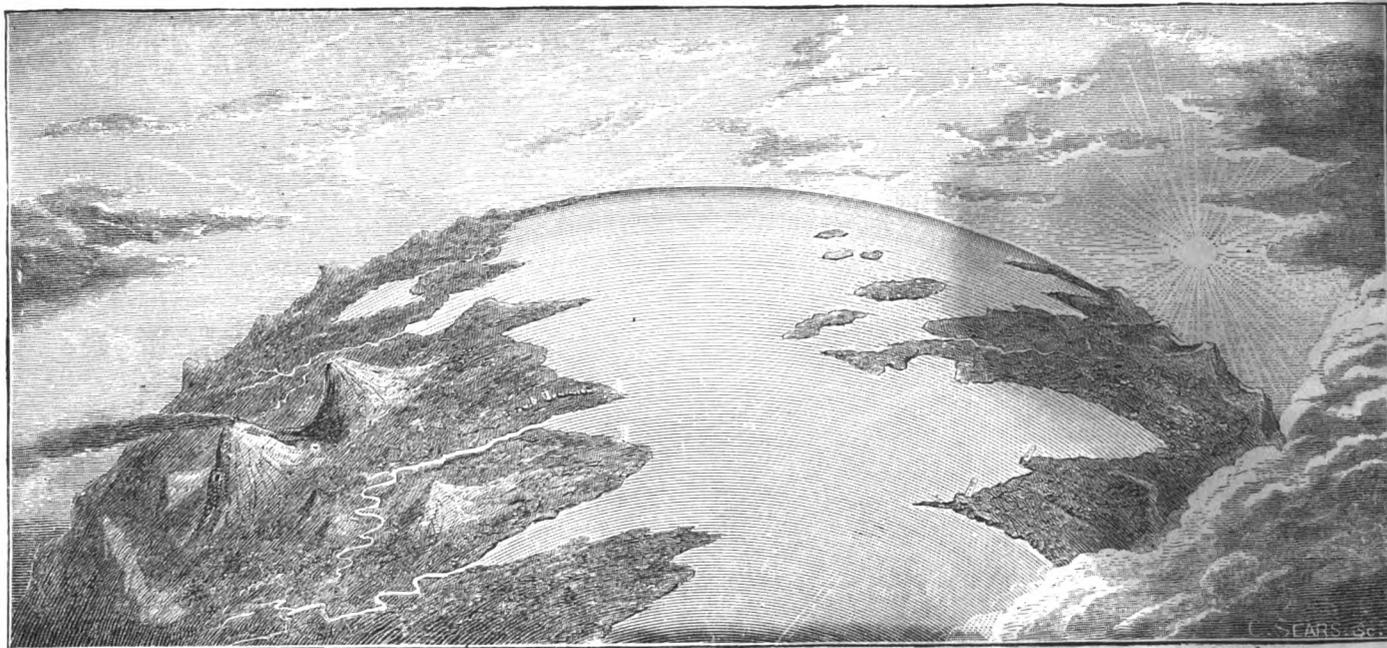
The occasion of the preparation of this Intermediate manual was the desire which many teachers have expressed for a separate book for their younger classes instead of an eclectic preparatory course from a larger manual, as was suggested in the Common School Geography of this series. (See Preface, and Note in Index, to C. S. Geog.) The book is, as an elementary manual must be, but the *framework* of the great structure of geographical knowledge. It presents only the most fundamental and important ideas in each department of the subject, leaving all minor details to the future. In this, its distinctive character, it differs radically from all other works of the same grade, which present in the main *details, without order*, in the mistaken idea that they are simpler and more elementary than the groundwork of true Geographical Science.

MARY HOWE SMITH.

PRINCETON, May 26, 1867.

* See Professor Guyot's sketch of the history and objects of this method, page 4.

INTERMEDIATE.



The Land.

The Sea.

The Clouds and Sun.

LESSON I.

THE EARTH, OUR HOME.

I. Geography teaches us about the *Earth* which was made to be our home.

II. The Earth is round like a ball or globe. We live upon the outside, or *surface* of it.

The surface of the earth is curved everywhere, like the surface of a ball or globe. It does not seem so to us, because we see so little of it at once.

Above is a picture of a part of the Earth's surface.

III. One part of the Earth's surface is *solid*. It consists of rocks or stones, sand and soil. This we call *the land*. *Another part* is always moving and flowing. It consists of *water*, with only here and there a little land. This we call *the Sea*.

IV. Upon the Land are mountains and level plains, rivers and lakes. Trees, grasses and flowers *grow*, houses *are built*, and people and animals *live*, upon the land.

Upon the Sea ships sail, and fishes and great whales live in its waters.

V. Around the Earth, over the land and over the sea, is the *air* which people and all animals *breathe*. Without it they could not live a moment, and no plants could grow.

We cannot see the air, nor can we *feel* it except when it is in motion. Then we call it the *wind*.

The wind blows upon the trees and makes their branches wave, and their leaves rustle. It blows against the sails of ships and pushes them on their way over the sea.

VI. In the air birds and insects *fly*. *Clouds of vapor** float about, carrying moisture from the sea, to fall in rain or snow, and water the land.

Neither people, nor any animals, nor plants, could live without moisture any more than without air.

LESSON II.

THE EARTH, OUR HOME—(Continued).

I. The Earth alone, would be cold and dark, and nothing could live upon it; but it is warmed and lighted by the **SUN**, which is at all times shining upon it.

As the earth is round, only *one half* of it can be lighted at once. †

In order that both sides may be lighted, the Creator has caused the earth to *rotate* or whirl constantly round and round, bringing first one side, then the other toward the sun.

The earth is *twenty-four hours* in turning round once.

II. Day and Night.—*While the side* of the earth upon which we live is *toward the sun* we have *day*. While it is *away from the sun* we have *night*.

During the day there are sometimes *thick clouds* between us and the sun, which make the day somewhat dark.

When a place first comes in sight of the sun, it is *sunrise* or

* We see *vapor* rising from warm water. This we call *steam*. We also see it rising in the morning from ponds, or brooks. This we call *fog*.

† This you will see if you hold a ball beside a lighted candle. *The side turned toward the candle* is everywhere light. The other side is everywhere dark.

morning, at that place. When the sun shines most directly upon it, it is *noon*.

When the place is just going out of sight of the sun, it is *sunset*, or evening at that place.

In the picture above it is morning.

When we have morning, the place opposite us on the earth has *evening*. When we have *noon*, it has *midnight*.* Every place is, in turn, made warm and light by the sun.

III. Seasons.—

(Teacher see page 88, IV.) The earth also goes around the sun every year, in a path which is nearly circular.

In one part of this journey, the sun shines more directly upon the northern half of the earth than upon the southern; then the north half has Summer, and the south Winter.

In another part of the journey the sun shines more directly upon the southern half of the earth. This then has Summer, and the north Winter.

Between Winter and Summer is Spring; and between Summer and Winter is Autumn.

Thus has our Heavenly Father prepared the Earth to be our home.

LESSON III.

DIRECTIONS UPON THE EARTH.

I. East and West.—*East* is the direction in which the sun rises. *West* is the direction in which it sets.

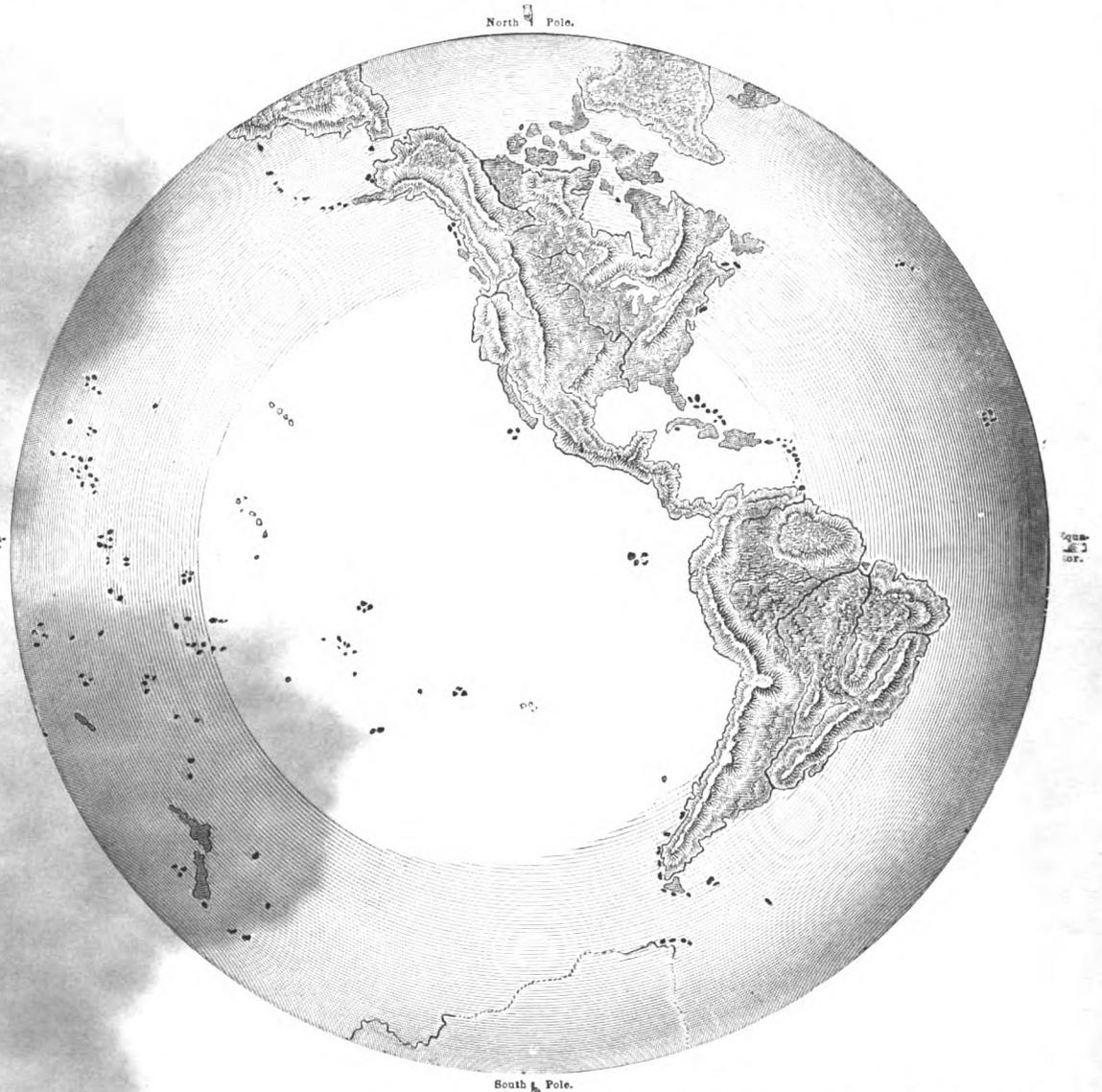
II. North and South.—If you stand with your arms extended, so that your *right hand* is toward the *east*, and your *left hand* toward the *west*, then *north* will be directly before you, and *south* behind you.

III. Middle Directions.—*The direction half way*

* This you will see if you place four pins in a ball so that from each to the next will be just one quarter the distance round the ball; then whirl the ball round slowly beside a lighted candle.

between north and east is *northeast*. That half way between south and east is *southeast*.

That direction half way between north and west is *northwest*, and that half way between south and west is *southwest*.



IV. The Poles.—The most northern point upon the earth's surface is called the *north pole*. The most southern point is called the *south pole*.

EXERCISE.—Point toward the east. How do you know that direction in which you have pointed is east? Point toward the west. Toward the north. Name some object which is on the south side of the room in which you are.

Point toward the southeast. Toward the southwest. Place some object in the northeast corner of the room. Name some object which is in, or near, the northwest corner.

In what direction does the street in front of the school-house extend? In what direction from the school-house is your home? In what directions must you walk to go from your home to the school-house?

Name some place which is north of you. East of you. South of you. West of you. Northeast of you. Southeast of you. Southwest of you. Northwest of you.

NOTE.—Exercises of this kind must be continued until the pupils can, without hesitation, point to or name objects in any of these directions from themselves.

LESSON IV.

REPRESENTATIONS OF THE EARTH.

I In Studying Geography we use *globes* and

North Pole.



South Pole.

maps, which are made to represent the earth's surface as correctly as possible.

II. A Globe is a round ball with drawings upon its surface to represent the surface of the earth.

It shows us the form of the earth, and the exact form and place of the great bodies of land and water upon the earth's surface.

The Equator.—A line is usually drawn round the globe, just half way between its north pole and its south pole, dividing its surface into two equal parts. This line is called *the Equator*.

III. The Hemispheres.—One half of a globe is called a *hemisphere*.

In looking at the globe itself, we can see but one half of its surface, or one hemisphere, at once.

Upon this and the opposite page you see pictures of the hemispheres, or opposite *halves of the earth's surface*.

The one at the right hand is called the *eastern hemisphere*. The one at the left is called the *western hemisphere*.

The uniform and smooth-looking surface represents the sea. The drawings upon it represent the lands of the earth.

An *index* on each side of the hemispheres points to the place where the equator would cross them if drawn. Another, above and below each, points to the place of the *poles* of the globe.

EXERCISE.—Point to the eastern hemisphere. Point to the western. Point to some part of the eastern hemisphere which represents the sea. Point to some part of the western hemisphere which represents land. Which hemisphere has the most land? Which has the most water? Which occupies most of the earth's surface, the land or the sea?

What is the name of the most northern point of the earth's surface? The most southern point? Point to the most northern part of each hemisphere.—The most southern.

Where is the equator drawn round the globe? How does it divide the surface of the globe?

Draw your pencil across each hemisphere where the equator should cross it, if drawn. On which side of the equator is most of the land?

IV. Maps.—A map is a drawing of the whole or a part of the earth's surface, made upon a *flat surface*.

Maps show the shape of bodies of land, or of countries; and the *place* of mountains, rivers, lakes, and cities within those countries.

The form of a country upon a flat map does not look quite as upon the globe, because the surface of the globe is curved.

In the maps used in this book, the *land* is colored green or brown, while the *water* is blue.

North is at the top of the map, and *south* at the bottom. *East* is at the right hand and *west* at the left hand.

LESSON V.

THE LANDS OF THE EARTH.

I. The Surface of the Earth consists of land and water.

The land forms but little more than one-quarter of its surface, nearly three-quarters being water.

*The great body of water which covers nearly three-quarters of the earth's surface, is called *The Sea*.*

II. Old and New Worlds.—1. *The lands are gathered together into two groups, on opposite sides of the globe.*

2. *One of these groups is nearly twice as large as the other.*

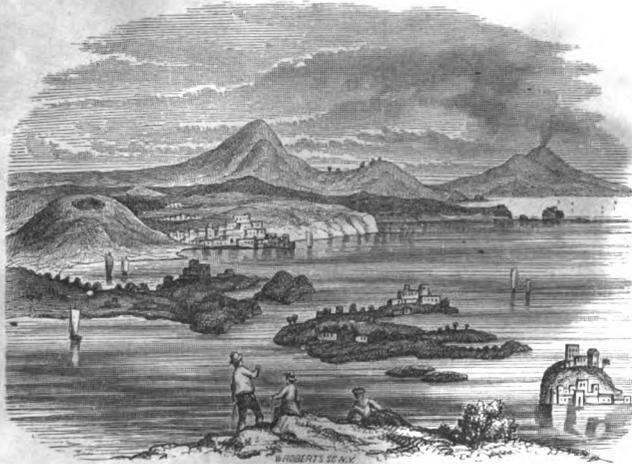
3. *The larger group lies in the eastern hemisphere, and is called the *Old World*.*

4. *The smaller one lies in the western hemisphere, and is called the *New World*.*

III. The Continents.—1. *The Old World consists of four great bodies of land. They are *Asia* and *Australia*, on the east; *Europe* and *Africa*, on the west.*

*The New World consists of two bodies, *North America* and *South America*.*

There are, in all, *six great bodies of land* on the earth's surface. Each of these is called a *continent*.



COAST OF ITALY, NEAR NAPLES.

2. **Coast.**—That part of a continent bordering the sea is called its *coast*. Boston is on the coast of North America.

The coast is very irregular, portions of the land projecting far into the water; and parts of the sea entering far into the land.

3. **Peninsula.**—A portion of the coast land nearly surrounded by water is called a *peninsula*. Florida is a peninsula.

4. **Cape.**—A point of land made by a bend in the coast-line is called a *cape*; as, *Cape Verd*, on the west coast of Africa. *If the point be high land, it is called a *promontory*.*

In the picture above are representations of a coast, a peninsula, an isthmus, and several capes and islands. Find each.

IV. Isthmus.—A narrow neck of land connecting two bodies of land is called an *isthmus*. The *Isthmus of Panama* connects North and South America.

Some peninsulas are connected with the main land by a narrow isthmus.

V. Islands.—A small portion or tract of land, entirely surrounded by water, is called an *island*.

Islands are found in the sea, and also within the continents, in lakes or rivers.

*A large cluster of Islands, or a part of the sea in which there are many islands, is called an *archipelago*. An archipelago lies between Asia and Australia.*

VI. The Pairs of Continents.—The six continents are placed together north and south in pairs. In the Old World is *Asia*, the largest of all, linked by a band of islands with *Australia*, the smallest of all.

Europe, next to the smallest, is linked with *Africa*, which is next to the largest.

In the New World, *North* and *South America* are connected together, the northern continent being the larger.

On the north is one small continent, *Europe*, between two large ones; on the south one large continent, *Africa*, between two small ones.

MAP EXERCISES.

(See Mercator's Map, pages 12, 13.)

NOTE TO TEACHERS.—This map is made by drawing the bodies of land and water which form the earth's surface upon a *cylinder*, instead of a sphere. This causes the lands toward the poles to appear larger than they should; but as no important countries are very near the poles, this fault is not of great importance. A fuller explanation of this map and its advantages is found in the "Common-School Geography, Teachers' Edition," pages 5 and xii.

Old and New Worlds.—Where is the Old World? The New World?

If you were in the middle of North America, in what direction would you go to reach the Old World? Could you reach it by going in more than one direction?

Which continents of the Old World are nearest to the New, if you go eastward? Which, if you go westward?

Why can you reach the Old World by going eastward or westward from the New?

If the earth were flat, could you travel from one world to the other in two opposite directions? Why not?

Continents.—Point to and name each continent in the Old World. Each in the New World.

Point to the eastern coast of North America. The western coast of South America. The northern coast of Asia. The southern coast of Europe.

Peninsulas.—What small peninsula on the eastern coast of North America?

How many great peninsulas on the southern coast of Asia? Which is the largest?

Which have most peninsulas—the southern continents, or the northern? Which world has most?

How many peninsulas on the southern coast of Europe? Which is the largest?

How many peninsulas on the eastern coast of Asia?

Capes.—What is the most northern point of the New World? The most southern point? The most eastern point? ¹ The most western point?

What cape on the southern coast of Africa?

What cape forms the most eastern point of Africa? ² The most western point?

What is the most northern point of Europe? Of Asia? The most eastern point of Asia?

The most southern point of Australia? The most northern point of Australia?

Name the most northern and the most southern point of the Old world. The most eastern and the most western point.

¹ Roque, pronounced *roke*.

² *G'rar-daf-wee*.

Islands.—What islands east of the southern point of South America? What one east of the southern part of Africa? What one east of the southern part of Australia?

What islands between North and South America?

What three large islands form a band extending from Cape York toward the Malay peninsula?

Where are the Sunda Islands?

What cluster of islands directly north of Celebes?¹

What large islands directly north of New Guinea?

What body of land* northeast of North America?

What is Greenland? *Ans.* It is thought to be a cluster of islands, with the passages between them filled with ice.

What two islands east of Greenland?

Position of Continents.—How many and what continents form the Old World?

Which extends farthest north? Which farthest south?

Which extends farthest east? Which farthest west?

What two continents are most closely united? *The separation between Asia and Europe is formed by the Ural Mts. and river, the Caspian Sea, the Caucasus Mts., and the Black Sea.* Find each.

How does the distance between Africa and Europe compare with that between Australia and Asia?

How is Australia connected with Asia? In this pair of continents, is the larger on the north, or on the south?

How is Africa connected with Europe? *Ans.* By peninsulas and islands. In this pair of continents, where is the larger one?

What two continents form the New World? How are these continents connected? Where is the larger?

Which extends farthest south—the Old World, or the New? Which farthest north?

Of the three northern continents, which is the smallest?

Where is it placed in regard to the other northern continents?

Of the three southern continents, which is the largest? Where is it placed in respect to the others?

Name all the continents in the order of their size.

* *NOTE TO TEACHERS.*—Greenland lies very near the north pole, where the meridians meet; therefore, on Mercator's map, where the meridians are drawn parallel, it appears much larger than it should.

LESSON VI.

THE SEA.

I. The Sea.—1. *The waters of the sea cover nearly three-quarters of the earth's surface.*

2. As the continents lie mainly on the northern portions of the globe, *the sea occupies the southern part.*

3. *The great divisions into which the sea is separated by the continents are called oceans.*

II. The Great Oceans.—1. *Between the three pairs of continents which extend southward, are three great spaces in which the waters of the sea extend northward.*

There are, therefore, upon the globe three *great oceans*; the *Pacific*, the *Atlantic*, and the *Indian* ocean.

2. *The largest ocean is the Pacific, which lies east of the Old World and west of the New, and is nearly oval in form.*

3. *The second in size is the Atlantic, which lies east of the New World and west of the Old. It is long, narrow, and winding, like a great river.*

4. *The smallest of the great oceans is the Indian ocean,*

¹ Cel'e-bes.



HERRING FISHERY.

which lies between the two southern continents of the Old World. It is triangular in form.

III. The Lesser Oceans.—1. *Around the North Pole, surrounded by the three northern continents, is a part of the sea which is nearly circular in form. This is called the Arctic ocean.*

2. *That portion of the sea which lies around the south pole is called the Antarctic ocean.*

The Antarctic is not surrounded by any lands, and is not really a distinct ocean. It is simply the centre from which the three great oceans proceed northward.

3. *The great oceans form pathways between the continents which separate them.*

They are constantly being crossed by ships from the countries surrounding them; but the lesser oceans are of little use, except as fishing grounds for the whale and seal.

IV. Coast Waters.—*The parts of the ocean along the coast have distinct names.*

1. *Inland Sea.*—A part of the ocean which lies *within the body of the continent*, is called an *inland sea*.

Gulf of Mexico, Hudson Bay, and Baltic Sea, are inland seas.

2. *Border Sea.*—A part of the ocean which lies *on the border of the continent*, and is separated from the main ocean by islands, is called a *border sea*.

The Caribbean Sea and Japan Sea are of this class.

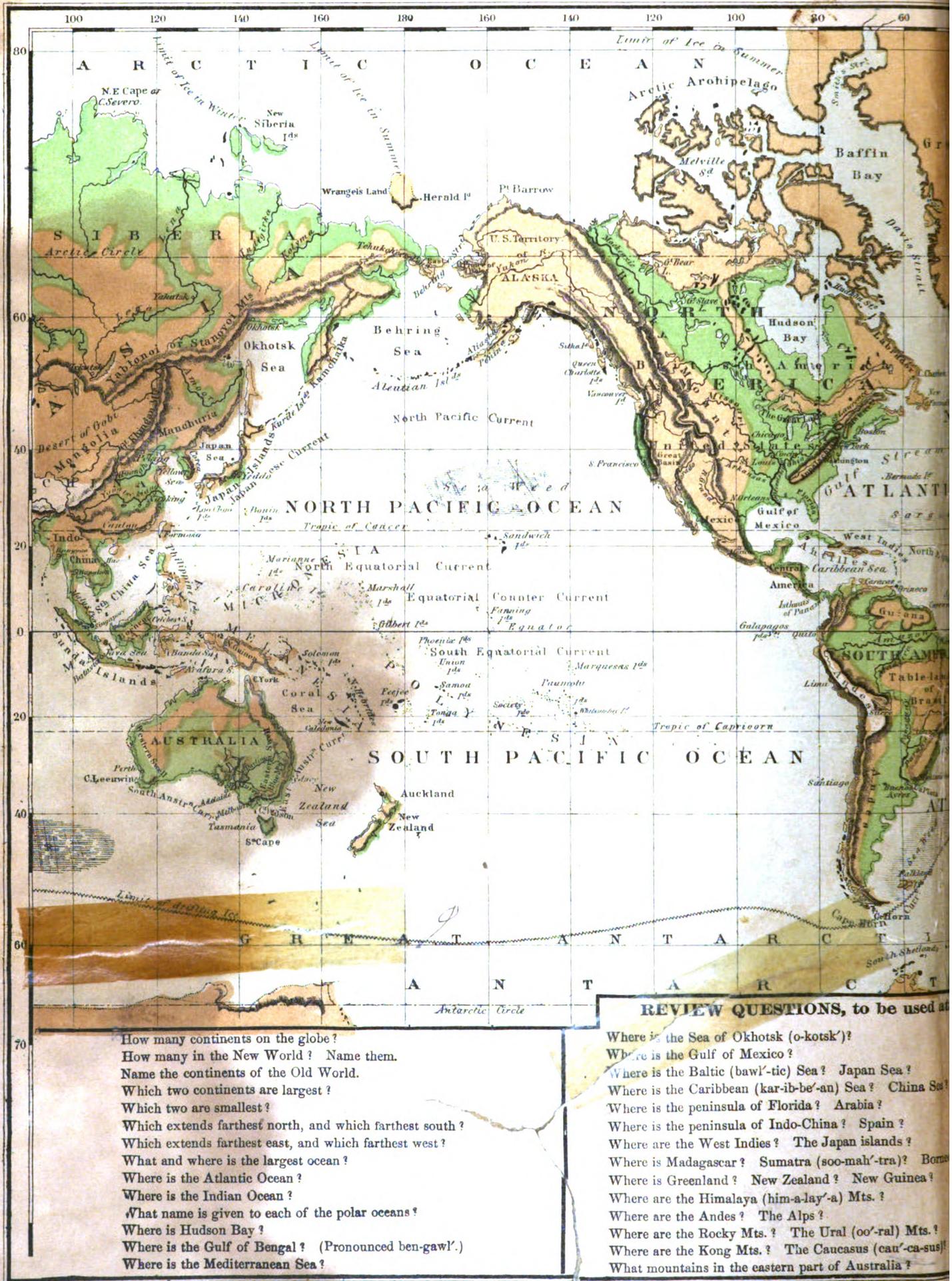
3. *Gulf or Bay.*—A simple *inward bend of the coast* forms a *gulf* or *bay*; as, the Gulf of Guinea, the Bay of Biscay.

The water of a gulf or bay is not separated in any manner from the ocean of which it is a part.

4. *Strait.*—A *narrow passage of water, connecting two bodies of water*, is called a *strait* or *channel*. The *Strait of Gibraltar* connects the Mediterranean Sea with the Atlantic Ocean.

5. *Sound.*—A passage or body of water which is *not very deep* is called a *sound*.

6. *Harbor.*—A small body of water on the coast, *surround-*

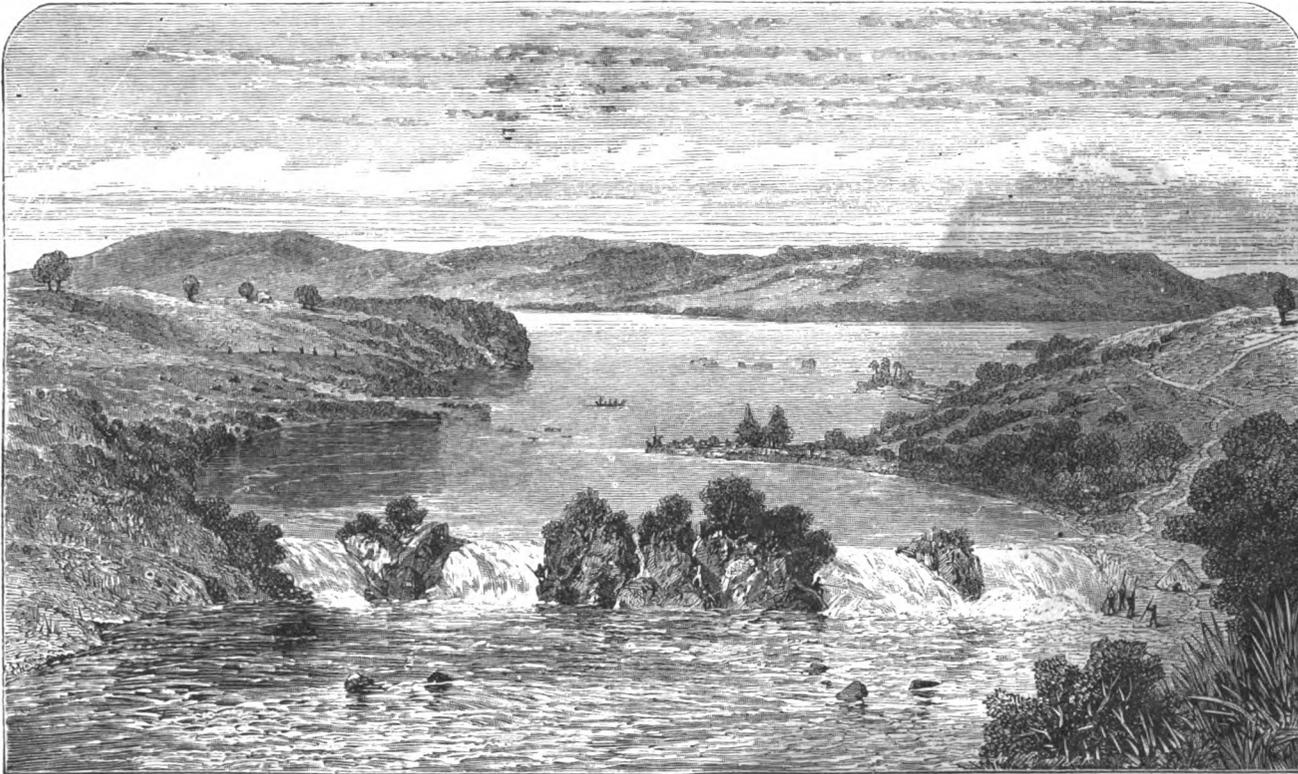


How many continents on the globe?
 How many in the New World? Name them.
 Name the continents of the Old World.
 Which two continents are largest?
 Which two are smallest?
 Which extends farthest north, and which farthest south?
 Which extends farthest east, and which farthest west?
 What and where is the largest ocean?
 Where is the Atlantic Ocean?
 Where is the Indian Ocean?
 What name is given to each of the polar oceans?
 Where is Hudson Bay?
 Where is the Gulf of Bengal? (Pronounced ben-gawl'.)
 Where is the Mediterranean Sea?

REVIEW QUESTIONS, to be used at

Where is the Sea of Okhotsk (o-kotsk')?
 Where is the Gulf of Mexico?
 Where is the Baltic (bawl'-tic) Sea? Japan Sea?
 Where is the Caribbean (kar-ib-be'-an) Sea? China Sea?
 Where is the peninsula of Florida? Arabia?
 Where is the peninsula of Indo-China? Spain?
 Where are the West Indies? The Japan islands?
 Where is Madagascar? Sumatra (soo-mah'-tra)? Borneo?
 Where is Greenland? New Zealand? New Guinea?
 Where are the Himalaya (him-a-lay'-a) Mts.?
 Where are the Andes? The Alps?
 Where are the Rocky Mts.? The Ural (oo'-ral) Mts.?
 Where are the Kong Mts.? The Caucasus (cau'-ca-sus)?
 What mountains in the eastern part of Australia?

Entered according to Act of Congress, in the year 1870, by CHAS.



RIPON FALLS (NILE RIVER).

Mountain ranges sometimes lie close along the sea-coast, and sometimes far in the interior of the country. They do not rise directly from the plains, but are surrounded by a hilly region.

Going from the sea to mountains in the interior, we first cross the low plains of the coast; then we rise to the hill-country; and finally reach the mountains. (See the small picture, page 14.)

IV. Representations of Surface.—On the maps in this book the *low plains* are colored *green*. The *plateaus* are *light brown*, except the *very high ones*, which are white.

The *mountain ranges* are represented by bands of *dark brown color*. The higher the mountains are, the darker and broader is the band which represents them. Where they are *very high*, the centre of the band is left white.

The *slope* or *descent* from the higher part of a plain or plateau to lower lands, is marked by a shading like *one side of a mountain range*. (See maps of *N. A.* and *U. S.*, pages 26 and 51.)

MAP QUESTIONS.—(See Mercator's Map, pages 12, 13.) What part of North America consists of plateaus? What mountains are upon this plateau?

What mountains are in the eastern part of North America?

Which are higher—the mountains of the western, or those of the eastern part of the continent? How do you know this?

What part of North America consists of low plains?

What table-land in the eastern part of South America? What mountains along the western coast?

Where are the low plains of this continent?

Which are the higher—the Andes or the Rocky Mountains? How do you know this?

In what part of Asia are all the great low plains?

In what part of this continent are all the highest lands? In what direction do they extend?

Which are the higher—the mountains of Asia, or those of Europe? How do you know this?

Which are the highest mountains of Europe? Which are the highest of Asia?

What continent consists almost wholly of high lands?

Where are the highest mountains of Africa? In what direction do they extend?

Where is the highest portion of Australia? In what direction does this swell extend?

What land forms a large part of the interior of Australia?

LESSON VIII.

THE WATERS OF THE CONTINENTS AND ISLANDS.

I.—1. Water, in the form of *springs, lakes* and *streams*, is found on the surface of the continents and islands.

This water has risen mainly from the sea in the form of *vapor*; has been carried by the wind to the continents and islands, often in the form of *clouds*; and has fallen upon the land in *rain* or *snow*.

It is now going down the slopes of the land on its return to the sea, from which it will again rise, to be once more spread over the earth, in *vapor* and *rain* or *snow*.

2. A *spring* is a place where water flows out from within the earth. From springs flow small streams of water, called *brooks*.

II. Lakes.—A *lake* is a body of water, lying in a hollow or basin in the land. The water is usually brought into the basin by *several streams*; but carried out by *only one*.

Some lakes have no streams flowing out from them. These are usually *salt lakes*, and some of them are called *seas*.

2. That part of the lake at which the water flows out is called the *foot*. The end opposite is the *head*.

3. Toward the head is called *up*, and toward the foot *down* the lake.

4. The land bordering the lake is called its *shore*.

5. *Along the shore of a large lake, as along the sea-coast, we find bays, harbors, capes, and peninsulas; and often islands rise from its surface.*

III. Rivers.—1. *A large stream of water flowing in a narrow channel through the land, is called a river. A small stream is called a brook, rivulet, or creek.*

2. *The place at which the river begins is called its source. The place at which it flows into some other water is called its mouth.*

3. *Toward the source is called up the river; toward the mouth, down the river.*

4. *A river which flows into another is called a tributary of the stream into which it flows.*

5. *The land bordering the river on each side is called its banks.*

The right, or the left bank, is the one which is on the right, or the left hand, when going down the river.

6. *The land beneath the river is called its bed; and the space between the banks is its channel.*

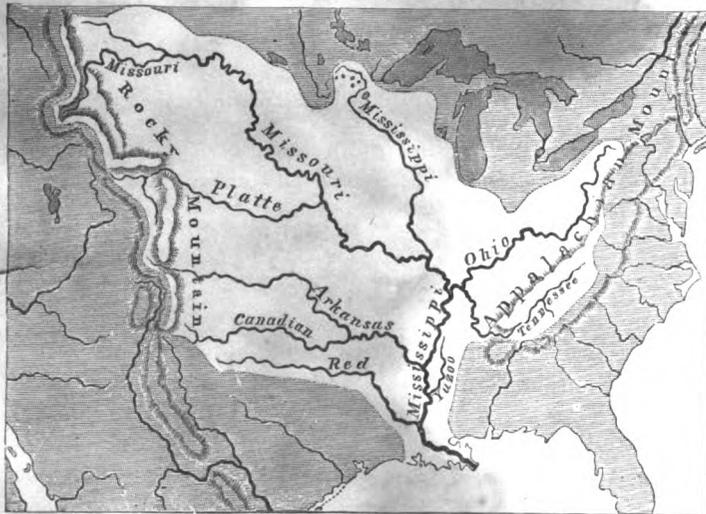
IV. Uses of Rivers.—1. *Rivers whose waters flow rapidly are of use in turning machinery, and are therefore said to afford water-power.*

2. *Deep, gently flowing rivers permit vessels to go upon them, from place to place. They are therefore said to be useful for navigation.*

3. *Brooks and rivers also moisten and make fertile the lands which border them.*

4. *In the beds of many rivers are steep places, called precipices. The streams flowing over these form waterfalls.*

Where the bed slopes much, but not enough to form a precipice, the stream flowing over it forms rapids. Waterfalls and rapids hinder navigation in the part of the stream where they are; but increase the water-power greatly.



BASIN OF THE MISSISSIPPI.

V. River Basins.—1. *All that part of the country which sends its water into one river is called the basin of that river.*

Many rivers which together drain one great basin are called a system of rivers.

2. *Water always flows away from the higher parts of the country, down the slope to the lower parts; as the water on the roof of a house flows from the centre, which is higher, toward the edges, which are lower.*

3. *The land in which the river rises is always higher than that toward which it flows.*

4. *The borders of a river basin, where are found the sources of the river and its tributaries, are higher than the middle part in which the river lies.*

5. *By noticing the direction in which the streams flow, we can always learn in what direction the land slopes.*

VI. Water-Shed.—1. *The ridge of highest land that crosses a country divides the rain-water which falls on one side of it, from that which falls on the other side; so that streams flow away from it in opposite directions.*

2. *A ridge of land which divides the flowing waters of a country, is called the water-shed of that country.*

3. *The basin of a river is always surrounded on all sides but one by a water-shed, which separates it from other river basins.*

4. *Some water-sheds, in plains, are so low that they can be found only by finding the place from which the streams flow away in opposite directions.*

MAP QUESTIONS.—(See Mercator's Map, pages 12, 13.) *What three great rivers in the northern plains of Asia? Describe their course.*

NOTE.—*The form of description should be as follows: "The — river has its source in the —, and flows in a — direction, into —."*

How many and what great streams flow eastward from the central table-land of Asia?

Describe the course of each.

How many flow southward from the same high region?

Describe the course of each.

How many flow westward?

Describe their course.

Why do these streams of Asia all flow from the centre toward the four sides of the continent?

Why are the northern streams so much longer than the southern?

What is the longest river in the great plain of Europe?

Describe its course.

What river flows northward, having its sources in the same region?

How, then, must the middle part of this plain compare in height with the northern and the southern portions?

What two rivers flow in the same direction with the Volga? Into what waters do they flow?

What river from the west, flows into the Black Sea? Where is its source?

What great river in the eastern part of Africa?

Describe its course.

What large river in the western part of Africa?

Describe its course.

What two in the southern part, flowing westward?

What large stream flowing eastward?

What lake in the central part of North Africa?

What lake at the source of the Nile?

What is the only large river of Australia?

What is the greatest river of South America? Describe its course. What is its greatest tributary?

What river north of the Amazon flows eastward?

What river of South America flows southward? What two streams unite to form it? Where are their sources?

What great river in the central part of North America, flowing southward?

What tributaries has it from the west?

What tributary has the Mississippi from the east?

What bodies of water east of the source of the Mississippi? By what stream do their waters reach the sea?

In going from the Great Lakes northwestward to the Arctic, how many large bodies of water will you pass?

Name the two most northern lakes.

What stream carries the waters of the three northern lakes to the ocean?

What stream flows from the south end of the Rocky Mts. into the Gulf of Mexico?

LESSON IX.

CLIMATE AND VEGETATION.

I. Climate.—1. By the *climate* of a country is meant its *heat or cold, moisture or dryness, healthfulness or unhealthfulness.*

2. A country which has much *more warm weather* than cold during the year, is said to have a *warm or hot climate.*

3. A country which has much *more cold weather* than warm during the year, is said to have a *cold climate.*

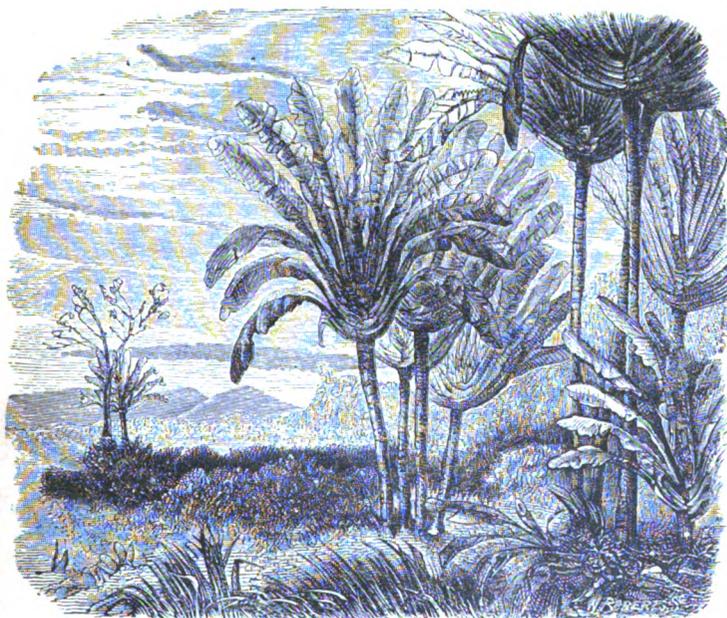
4. A country in which the warm and the cold parts of the year are nearly equal, is said to have a *temperate climate.*

5. *The hottest part* of the earth is near the equator, and is called the *Torrid zone.* *The coldest parts,* called the *Frigid zones,* are near the poles. *The temperate countries* are midway between the equator and the poles, forming two bands, called the *Temperate zones.**

II. Vegetation.—*The plants* of a country, all taken together,—as trees, grasses, flowers, etc.—are called its *vegetation.*

Plants require both warmth and moisture to make them grow. Therefore, a *very cold* or a *very dry* region can have *but little vegetation.* Countries which are both warm and very moist always have a luxuriant vegetation.

The traveller's tree, found in Africa, grows only in warm lands.



TRAVELLER'S TREE.

In warm countries the moist land along the border of lakes or streams is usually covered with a dense growth of tall reeds, rushes, and similar plants. These places form the shelter of many wild animals.



SCENE IN AFRICA.

LESSON X.

THE SUPPLY OF OUR WANTS.*

I. We need for the health and comfort of our bodies, suitable *food, clothing, and shelter.*

II. The Materials for our *food and clothing* are obtained, mainly, from *plants and animals raised by man*; called *cultivated plants, and domestic animals.*

Fish, wild animals, and plants growing wild, furnish but a small part of our materials. People who obtain their food and clothing mainly from these are called *savages.*

Our Shelter is made of *lumber* from the forests, or of *mineral substances* from the earth itself.

Stone; iron; clay, from which brick is made; *sand,* from which glass is in part made, are mineral substances.

III. Occupations of different kinds are necessary to *obtain* these various materials, and *to make from* them the many articles we need.

Four occupations, *agriculture, grazing, lumbering, and mining,* obtain the raw materials.

Manufacturing prepares them for our use.

1. *Cultivating the soil* and raising useful plants is called *agriculture.*

2. *Raising domestic animals* is called *grazing.*

3. *Cutting down the forest trees* to procure lumber, is called *lumbering.*

4. *Getting out valuable minerals* from the earth is called *mining*; except getting out *stone,* which is called *quarrying.*

5. *Making articles by man* is called *manufacturing.* The articles made are called *manufactures.*

Cloth, shoes, nails, furniture, &c., are manufactures.

* At the discretion of the teacher, this and the following lessons may be deferred until the class are ready to study the "Countries of South America." page 23.

* See "Limit of Zones," p. 89.

LESSON XI.

PLACES FITTED FOR DIFFERENT OCCUPATIONS.

1. The best land for *agriculture* is that which is *comparatively level*, and well *supplied with moisture*.

Such land is easily cultivated, and plants grow well upon the moist soil.

2. *Very rough or quite dry land*, which is not fit for agriculture, can be used for *grazing*. Grazing is also usually connected with agriculture in the level lands.

Grass and herbage upon which the animals feed will grow where cultivated plants will not succeed; and animals can go about and graze on steep hills and among rocks, where the soil could not well be cultivated, nor crops gathered.

3. In *thickly settled countries* forests are not extensive enough to make lumbering an important business.

The *mountainous regions*, which cannot be made useful for agriculture, are often covered with forests, from which valuable lumber can be obtained.

4. *Mines* are most easily discovered and worked in mountainous land, and therefore mining is most carried on in such lands.

In such land the rocks in which the valuable minerals are buried lie near the surface, and are broken so that the different layers can be examined and the minerals found; while in level lands they may lie at a great depth, hidden beneath other rocks and the soil.

5. *Water-power* is much used in turning machinery for manufacturing. *Streams flowing through hilly or mountainous land* usually afford more water-power than those of level regions.

The land down which they flow slopes more, and there are often rapids and falls along their course.

The *rough portions* of a country are, therefore, well fitted for *manufacturing*.

NOTE.—The following questions are not directed to the text, but to the intelligence of the pupil. They may be asked after the text has been recited.

QUESTIONS.—Do you know any people who are employed in agriculture? What do we call these people? What do we call their land?

Name some things which are raised on farms.

If you were going to buy a farm, what kind of land would you like best? Why?

Suppose a country consists mainly of level and rich lands; what do you think would be the business of the people there?

Suppose there were not enough people to cultivate all the rich land; in what other way could they make it useful?

Suppose a country consists mainly of rough, poor lands; what kinds of business will probably be found there?

What kind of mills usually have their machinery moved by water-power?

Suppose a part of the country has rich mines of coal and iron: what kind of *manufacturing* would people be likely to carry on there?

LESSON XII.

COMMERCE AND LOCATION OF CITIES.

I. Commerce.—1. The exchange of one kind of goods for another is called *commerce*.

Commerce enables us to get from others what we cannot raise or make for ourselves.

It is necessary because each of the different classes of people in a country usually produces much more than is needed of some things, and not enough of others.

Thus the farmers and graziers can produce much more grain, butter and cheese,

wool, etc., than they need; but they cannot make all the tools they need, their boots and shoes, furniture for their houses, etc. Manufacturers can make all these; but they cannot themselves produce the wool, hides, etc., out of which they must be made.

2. The goods to be exchanged may be sent from place to place by means of vessels upon lakes, rivers, and the ocean.

Where there are no navigable waters between places that desire to engage in commerce with each other, canals are dug. Railroads are built to enable people to go, or to send goods from place to place, more rapidly than they could go by boats.

3. Commerce is carried on between different parts of the same country; and also between different countries. The former is called *domestic commerce*; the latter is called *foreign commerce*.

4. The goods sent out from a country are called *exports*. Those brought in are called *imports*.

II. Location of Cities.—1. *Villages, towns, and cities, grow up* where there is anything to cause many people to gather at one particular place.



NEW YORK HARBOR.

2. A good harbor on the sea-coast, or a place beside a large lake or river, where goods can be gathered from the country around, and shipped for distant places, will lead many people to go there to carry on commerce. Thus are formed, in time, *large commercial towns and cities*.

At these places, when the country is new, there is formed first a little *village*, with one or two store-houses, from which are sent away, and to which are brought, a few boat loads of goods every year.

As more people settle in the country, so that more goods are to be sent away, and more brought in, the village grows into a *large town*, sending away and receiving many vessels.

When the whole country around is occupied by a busy people, the town becomes a *great city*; and, if situated on the sea-coast, the harbor is thronged with ships from all countries.

3. *Rapids or falls* upon a river, or *rich mines*, will cause people, as the country becomes settled, to gather around them, to engage in manufacturing and mining.

At these places grow up *manufacturing towns and cities*.

These grow up by degrees, often from the building of a single mill or factory, just as do the commercial cities. A large manufacturing city must also have a large commerce, for materials must be bought, and the manufactures must be sold. In any *great city* both these occupations are always to be found.

(NOTE TO TEACHERS. — Review the preceding pages. Questions on page 6.)

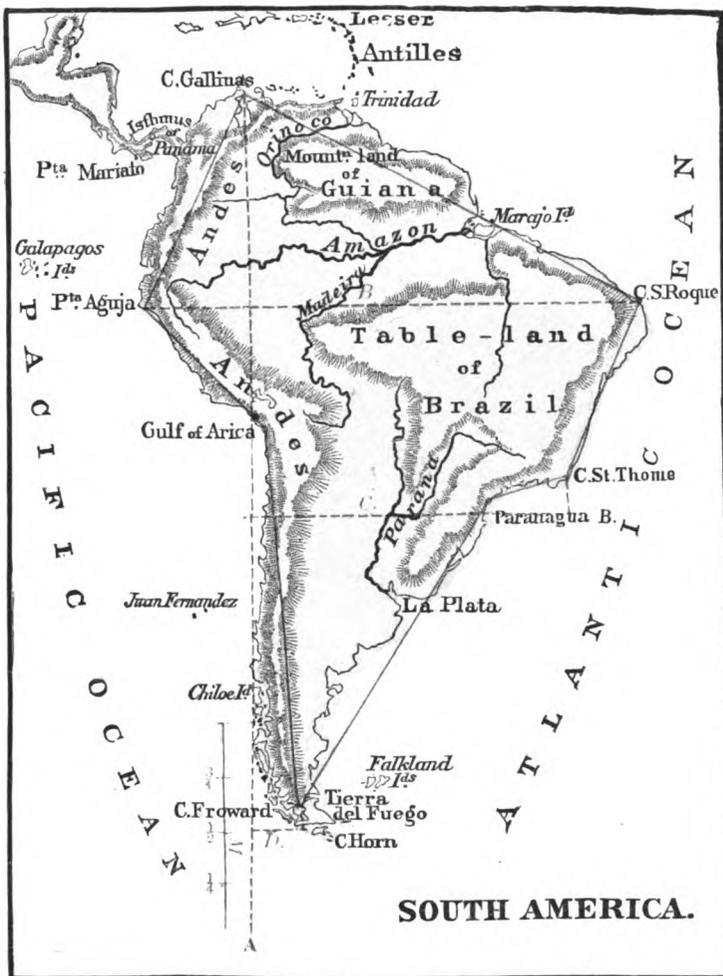
FORM AND NATURE OF CONTINENTS

AND

LOCATION OF THEIR COUNTRIES.

SOUTH AMERICA.

MAP STUDIES.



SOUTH AMERICA.

I. Form.—**A. FORM DESCRIBED.**—What is the most northern point of South America? ¹ Its most eastern point? ² Its most southern point? What two points terminate its westward projection? ³ How do the three coasts compare in length? How does the direction from C. Gallinas to Punta Aguja compare with that of the eastern coast? How does the direction from Punta Aguja to G. of Arica ⁴ compare with that of the northern coast?

B. FORM DRAWN.*—Draw the form of South America according to the following Directions:

¹ Gah-lee'nas. ² Roke.
³ Poon'-tah pah-ree'-nah, poon'-tah ah-goo'yah ⁴ Ah-ree'-kah.
 * NOTE.—The Teacher will assign for one lesson such a portion of the drawing as may be thought sufficient. The pupil must practice the drawing until he can reproduce from memory, correctly and rapidly, the portion assigned for the lesson; and must commit to memory the name and location of every point indicated.
 In recitation, the pupil first called upon goes to the blackboard, draws and divides the vertical line, repeating, while so doing, the direction for drawing it. The next pupil draws

- 1. Construction Lines.**—Draw a vertical line A, and divide it into four equal parts, marking one part M for the measure of the map.
 At the upper and middle points of division draw horizontal lines; B across A, and C to the right of A.
 At the middle of the lower quarter of A, draw to the right another horizontal line, D.
 - 2. Northern Coast.**—At the top of A we find C. Gallinas.
 Make B, at the right of A, very nearly two M in length, thus finding C. St. Roque.
 Connect these two points, and we have the line of the northern coast.
 - 3. Eastern Coast.**—Make C one and one half M. A little (not quite $\frac{1}{2}$ M) above its end we find C. St. Thome.¹
 Nearly two-fifths M to the left of this cape, and very near C, we find B. of Paranagua.²
 Make D one fourth M in length, thus finding, just above its end, C. Froward.
 Connect these points, and join Cape St. Thome to Cape St. Roque, and we have the general line of the eastern coast.
 - 4. Pacific Coast.**—Make B, at the left of A, one half M in length, thus finding Punta Aguja. Connect with C. Gallinas.
 Find the middle of that part of A between B and C. Through this point draw a straight line from Punta Aguja, ending a little at the right of A. We thus find G. of Arica. Connect it to C. Froward, and we have the general line of the Pacific coast.
- C. CONTOUR DRAWN AND DESCRIBED.**—1. What island one half M to the right of C. Gallinas? † Near what river mouth is this island? What island midway between this and C. St. Roque? ‡ In the mouth of what river is Marajo? What gulf (Map, p. 20) beside C. Gallinas?
 † Draw this coast, naming each of these points when you reach it.
 2. What cape about midway from C. St. Thome to C. Froward? What river near it? What gulf between this point and C. Froward?
 Draw this coast, naming all these points.

in the same manner the horizontal lines. The third commences marking and connecting points named; and is followed by successive pupils until the lesson is completed.
 The pupils must work rapidly, and must invariably repeat while drawing the formula for the work they are doing, as given in the "directions." When drawing the true coast lines, they must name every important point the moment they reach it.
 † NOTE.—The Teacher should require every answer to be a complete sentence. Thus: "Nearly one half M. to the right of C. Gallinas is the island of Trinidad." By no means accept an answer which, taken by itself, apart from the question, is not a complete expression of the idea to which the question calls attention.
 ‡ NOTE.—The drawing which enters into the recitation should either wholly precede, or wholly follow, the recitation from the outline map; as during the drawing no map should be before the pupils. The drawing exercises may be of four different varieties:
 1. Simultaneous drawing by the entire class (from memory, of course) of all that part of the map assigned for the lesson, either upon slates or the blackboard. If the time for recitation be limited, this may be done before the class assemble for recitation. In this case the names of all places to which the attention of the class is called in the lesson, should be written where they belong.
 2. The pupils succeed each other in drawing and describing one point after another of the lesson, without questions, as described above.
 3. The teacher, or some pupil appointed the day previous to conduct the exercise, sketches rapidly the entire map up to the point where the lesson of the day ends; the class naming every point, whose name has been learned, the moment it appears upon the board. This sketching may be done by the aid of the construction lines, and the lines of contour, if necessary; but if used, they should be placed upon the board before the class assemble.
 4. When a question is asked in regard to the location of an island, mountain range, river, or lake, the pupil called upon to recite may draw, in an outline prepared on the board, the object to which attention is directed, describing its position while drawing.
¹ Tô-ma ² Pah-rah-nah'-gua. ³ Marajo, pronounced mah-rah'-zho.



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3. At what part of the distance from C. Gallinas to Punta Aguja is the isthmus of Panama? ¹ What gulf? near Punta Aguja?

Draw this coast, naming all these points.

4. What large group of islands? just south of C. Froward? What strait separates it from the main land? ⁴ What cape on the most southern of these islands?

Where is Chiloe? ⁵ What island midway between it and C. Froward? Where are the Falkland Islands?

Draw all these islands, naming each, and describing its position.

Where are the Lesser Antilles? Where are the Galapagos Ids.? ⁶ What island of the Pacific nearly opposite the mouth of the La Plata?

Draw all these islands, naming each.

II. Surface.—What does the green color on the map represent? (See page 15.) How are table-lands or plateaus represented?

How are mountain ranges represented? How is the difference in their height shown?

1. *Western Highland.*—What mountain system forms the western portion of South America? Where does it lie? How far and in what direction does it extend?

Draw * the Andes, and while doing so, describe their position and extent.

Where are the Andes broadest and highest?

What is the highest part? *Ans. Nevado de Sorata.* ⁷

What plateau between the ranges in this part of the system?

Mark on your map the position of Nevado de Sorata, and state where it is situated.

2. *Eastern Highland.*—What table-land forms the eastern part of South America? How far does it extend north and south? How far westward in its broadest part?

Where are the highest mountains of the table-land of Brazil?

Draw and describe the position of *Serra Espinhaço.* ⁸ *Cordillera Geral.* ⁹

3. *Mountain Land of Guiana.* ¹⁰—Where is the mountain land of Guiana? In what direction does it extend?

Draw * this mountain land, describing its position.

4. *Central Plains.*—What forms all the interior of the continent? What is the surface of these plains? (See page 22.)

III. Rivers and Lakes.—What is the largest river of South America? In what part of South America is the Amazon river?

Where is the source of the Amazon? In what direction does it first flow? Where does it turn eastward? Into what water does it flow? Draw the Amazon river in its proper place, commencing at its source, and describe its course. (See "Form of description" in *Map Questions*, page 16.)

What name is given to a stream which flows into another one? What is the largest tributary of the Amazon? ¹¹ What is the upper course of this stream called? *Ans. Rio Grande (rec'-o grahn'-da).*

Where is the source of the Rio Grande? State the directions in which it flows from its source to the Amazon? How far from the mouth of the Amazon (what part of the length of that stream) is the mouth of the Madeira?

Draw this river, and state all you have learned about it.

How many large tributaries has the Amazon below the Madeira? Where are their sources? In what direction do they all flow?

Draw in its proper place, and describe the course of the *Tapajos* ¹² The *Xingu.* ¹³ The *Tocantins.* ¹⁴

How many large tributaries has the Amazon from the north? Draw and describe the course of the *Rio Negro.* ¹⁵ The *Yapura.* ¹⁶

What large stream flows round the west end of the mountain land of Guiana? Draw the *Orinoco*, and describe its course. The *Meta.* ¹⁷

What two rivers are connected by the *Casiquiare*? ¹⁸ Draw this river.

* NOTE TO TEACHERS.—For these exercises, an outline map may be prepared on the blackboard, and left from day to day to be filled up as the lessons proceed. Pupils should, from this point in the study of every continent, have an outline on their slates while preparing the lesson, drawing all objects indicated as a necessary part of this preparation. A simple dotted line may be used to represent each mountain range.

- | | | |
|---|--|---------------------------------------|
| ¹ Pah-nah-mah. | ² Gwy-ah-keel. | ³ Tee-er-ra del Fu-e'-go. |
| ⁴ Ma-gel'-lan. | ⁵ Chi'-lo-a. | ⁶ Gah-lah-puh'-gos. |
| ⁷ Na-vah'-do de So-rah'-yah. | ⁸ Ser'-rah Es-peen-yah'-so. | ⁹ Cor-dil'-le-ra Zha'-ral. |
| ¹⁰ Ghe-ah'-nah. | ¹¹ Ma-dee'-rah. | ¹² Tah-pah'-rhoce. |
| ¹³ Shing-goo'. | ¹⁴ To-can-teens. | ¹⁵ Rec'-o Na'-gro. |
| ¹⁶ Yah-poo'-rah. | ¹⁷ Ma'-tah. | ¹⁸ Cah'-see-kee-air'-a. |

What large streams rise just west of C. St. Thome? What is the broad mouth of the Parana ¹ called? What large river ² flows into the Parana from the north? Draw the Parana and Paraguay, describing the course of each.

Draw and describe the course of the *San Francisco.* The *Magdalena.* The *Rio Colorado.* ³ Why has South America no large rivers flowing westward?

What lake ⁴ on the plateau of Bolivia? Where is lake *Maracaibo*? ⁵

COUNTRIES OF SOUTH AMERICA.

[To follow the study of Climate, Vegetation, etc., of South America. — NOTE. — POLITICAL BOUNDARIES in the uncivilized interior of the continent, except those on the course of some streams, cannot be laid down with exact accuracy, for they have never been determined by the several countries. The same is true of the interior of Africa, and the barren plains of Asia.]

I. Pacific Countries.—What two countries lie on the Pacific coast, north of the Amazon? What forms the western half of these countries? What kind of land in the eastern part of them? In which part do you find their cities?

What kind of lines mark their separation from the countries around them?

* Trace upon the map the boundaries of the United States of Columbia. What country joins this on each side? Mark in its proper place in a map on the blackboard, *Bogota,* ⁶ the capital, and state where it is situated.

What countries join Ecuador? upon each side? Trace its boundaries. Mark in its proper place *Quito,* ⁸ its capital, and state where it is situated.

3. What country lies between Punta Parina and G. of Arica? Of what kind of land does this country mainly consist? Trace its boundaries, and state from what countries they separate it. Mark and describe the position of *Lima,* ⁹ *Of Cuzco.* ¹⁰

4. What country touches the Pacific next south of Peru? What is its extent of coast? How much of Bolivia is lowland? What is remarkable about the part of the Andes within Bolivia?

What countries surround Bolivia? What rivers form part of its eastern boundary? Trace its boundaries. Where are its cities?

Mark and describe the position of *Sucre,* ¹¹ its capital. *La Paz.*

5. What is the only country lying wholly on the western slope of the Andes? Trace its boundaries. What countries join it? Mark and describe the location of *Santiago,* ¹² its capital.

What is the narrow southern part of South America called? What kind of a country is Patagonia?

II. Atlantic States.—1. What country ¹³ borders the Caribbean Sea? Trace its boundaries. What countries surround it?

What kind of land forms the southeastern part of Venezuela? The north-western part. The central part. Where are its cities? Mark and describe the location of *Caracas,* ¹⁴ its capital.

2. To what nations does the eastern part of the mountain land of Guiana belong?

3. What country across the Andes from Chili? Trace its boundaries. What countries surround it? What and where is its capital? ¹⁵

4. What small country between the Parana and Paraguay rivers? By what countries is it surrounded? How does it differ in position from all the other countries of South America? What and where is its capital? ¹⁶

5. Of what country is *Montevideo* the capital? Where is this city?

6. What very large country in the eastern part of South America? Trace its boundaries. Name the countries which touch it on the north. On the west.

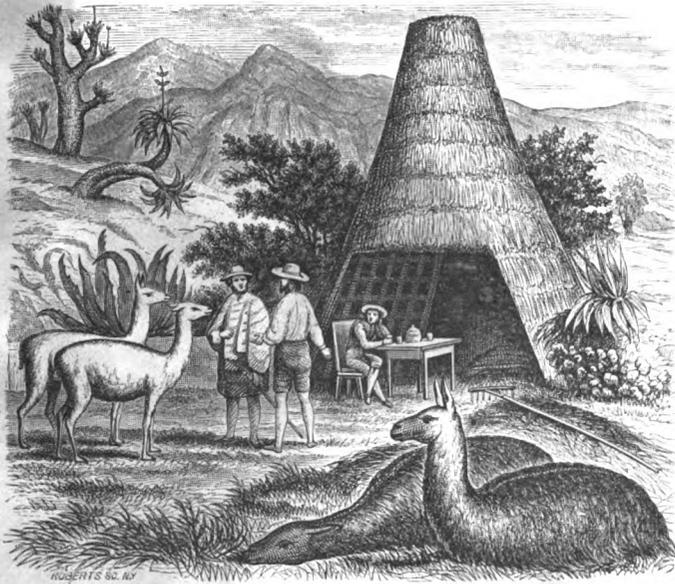
What kind of land forms its northern part? What its central and eastern part? Name its principal mountain ranges. What great rivers are included within Brazil?

Mark and describe the position of *Rio Janeiro,* ¹⁷ its capital. *Bahia,* ¹⁸ *Para.* ¹⁹

* NOTE.—The pupils may simply trace the boundaries with a pointer, upon the printed map, if to draw them would be too difficult. But they mark the location of the cities indicated in a map on their slates and blackboard.

- | | | |
|--------------------------------|----------------------------------|------------------------------------|
| ¹ Pah-rah-nah. | ² Pah-rah-gway. | ³ Rec'-o Col-o-rah'-do. |
| ⁴ Tee-tee-cah'-cah. | ⁵ Mah-rah-ki'-bo. | ⁶ Bo-go-tah. |
| ⁷ Ec'-wah-dore. | ⁸ Kee'-to. | ⁹ Lee'-mah. |
| ¹⁰ Koo's-co. | ¹¹ Soo-kra'. | ¹² San-te-ah'-go. |
| ¹³ Ven-ex-wee'-lah. | ¹⁴ Kah-rah'-kas. | ¹⁵ Bo'-nus a'-ris. |
| ¹⁶ Ah-soom'-se-own. | ¹⁷ Ri'-o Jah-nee'-ro. | ¹⁸ Bah-ee'-ah. |
| ¹⁹ Pah-rah'. | | |

NATURE OF SOUTH AMERICA.



SCENE IN THE ANDES. Llamas.

I. Surface.—South America consists of the *Andes* mountain system on the west; the *Table-land of Brazil* on the east, and a great low plain lying between them.

The northern part of this plain is broken by the small *Mountain Land of Guiana*.

1. The *Andes* mountain system extends the entire length of the continent, and is from two to three hundred miles in width. Its highest part is *Nevado de Sorata*.

The slopes are quite steep, and full of gorges and precipices, so that travelling among the mountains is very dangerous. The *Llama*, a small sure-footed animal, which is a native of the mountains, is the almost only means for carrying goods across them.

A high valley runs along the middle of the *Andes* system, through almost its entire length. The broadest portion of it is called the *Plateau of Bolivia*.

2. The *Table-land of Brazil*.—This part of the continent consists of a high plain, with low, irregular mountain ranges crossing it. The highest ranges lie along the eastern coast.

3. The *central plains* are low and very level. The plains between the upper *Orinoco* and the *Amazon* are so flat that the *Casiquire* river flows from the *Orinoco* into the *Rio Negro*, a tributary of the *Amazon*.

The tributaries of the *Madeira* and the *Paraguay* are also connected, in those parts of the year in which the rivers are highest. One can then go by boat, through these streams, all the way from the mouth of the *Orinoco* to that of the *La Plata*.

II. The Rivers of South America are mainly united in three great systems—the *Amazon*, the *La Plata*, and the *Orinoco*.

The *Amazon* is one of the longest rivers on the globe, and carries more water than any other. Below the *Madeira*, it is so broad as to seem like a great lake going to the sea. Its

mouth, on one side of the *Island of Marajo*, is about eighty miles wide, and on the other side, about fifty miles.

The *Amazon* is not a single stream flowing along always in the same channel; but is a net-work of streams all connected together, moving on side by side. Sometimes it is very difficult to tell which is the main channel and which are the branches.

III. Climate.—South America is a *very warm continent*, because the larger part of it lies on that part of the globe near the *Equator*.

The southern part, and the high mountains, alone have a cool climate.

The winds which blow on the middle and northern part of South America come to it across the warm waters of the *Atlantic*. They are full of vapor, which falls in rain or in dew, as they sweep over the land. Therefore this continent has a *great amount of moisture* as well as of warmth.

The year is not divided into *Spring*, *Summer*, *Autumn*, and *Winter*, by changes of *temperature*, as in our own country, for all seasons are much alike in warmth.

In one half the year rain falls almost every day. This is called the *wet season*. In the other half there is no rain, though heavy dews fall. This is called the *dry season*.

IV. Vegetation and Animals.—Because it is so warm and moist, South America has a more luxuriant vegetation than any other continent on the globe.

A large part of the continent is covered with forests, so dense that it is almost impossible to find, or to make, a path through them, except by way of the rivers.

1. *Selvas*.—Nowhere else on the globe can be found such extensive, dense forests, as cover the entire basin of the *Amazon*, where the rains and the dews keep the earth at all times supplied with moisture.

Great trees cover the earth, and are bound together by vines winding around their trunks, stretching from one to the other, and trailing from the branches above.

Beneath the trees a growth of vines, shrubs, grasses, reeds, and low plants of every kind, make a perfect tangle of vegetation, through which only the wild animals of the country are able to make their way.

In these forests are beautiful *tree ferns*, and many kinds of lofty *palm trees*; *mahogany* and *rosewood*; *caoutchouc*, from the sap of which india rubber is made; *cinchona*, or the *Peruvian bark tree*; *cacao*, from the fruit of which chocolate is made; and many other trees, yielding valuable wood, food, medicines, or dye-stuffs.

These forest plains of the *Amazon* are called *Selvas*. The *selvas* are thronged with wild animals of many kinds. The largest is the *tapir*. The most dangerous is the *jaguar*—a kind of tiger.

The marshy lands bordering the streams abound in *alligators and other reptiles*; and swarms of poisonous *insects* fill the air.

Many kinds of *monkeys*, and *birds* of such brilliant colors as to look almost like winged flowers, inhabit the branches of the trees.

2. The *Llanos*.—The plains of the *Orinoco* are without trees, and are called *Llanos*.

During the *wet season* they are covered with a rich growth of tall grass, mingled with the most beautiful flowers. Immense herds of horses and cattle pasture over these plains. Insects in great numbers suck the juices of the plants; snakes and alligators may be seen everywhere.

In the *dry season* the plants wither and are burned; the cattle and horses go to

fresh pastures near the mountains; the insects die; the reptiles are buried in the earth. No sign of life is seen anywhere except in the little belts of green forest that border the streams; but the rich plain is parched and dead, like a desert.

3. *The Pampas*.—The plains of the La Plata are also treeless. They are called *Pampas*.

The Pampas are like the Llanos, green and full of life in the wet season, parched and dead in the dry season.

The same animals are found here as on the Llanos. The cattle and horses now wild on these plains are not natives of the country. The first were brought here by settlers from Europe.

4. *The Andes*.—Their lower slopes are covered with dense forests, and inhabited by wild animals like those of the Selvas.

As we ascend the mountains, the palms and other trees of the Selvas disappear. In their place are the oak and beech, and other trees like those of our own country.

On the great heights only shrubs, grasses, and bright mountain flowers, grow. Here is the home of the *Llama*, and the *Alpaca*, which resembles it; and of the *Condor*, the largest bird that flies.

The summit of the Andes is cold and barren. The high peaks are covered through the year with snow and ice.

The long valley running through the system, which is about half as high as the tops of the mountains, has forests and cultivated plants like those of our own country. Its climate is like one long, warm spring-time; and is much more healthful and agreeable than the hot, moist climate of the lowlands.

V. The cultivated lands of South America are mainly along the coasts, and in the high valleys of the Andes, which are inhabited by white people.

In the warm portions are raised coffee, rice, sugar-cane, and tobacco; besides large quantities of cacao, vanilla, pineapples, and other productions of warm countries.



Spanish Americans. Gaucho. Indian woman.

PEOPLE OF SOUTH AMERICA.

In the cool regions—the high valleys of the Andes, and the southern countries—are raised wheat and corn.

VI. The Native People of South America are Indians. They are the only people in a large part of the continent. They are principally savages, feeding mainly upon the fruits of the forests, and fish from the streams.

The people of the Pampas are partly Indian, and are called *Gauchos*. Negroes are numerous among the white inhabitants, in the cultivated regions.

COUNTRIES OF SOUTH AMERICA.

(For Governments, See page 91, Table IV.)

The table-land of Brazil, and most of the Selvas, form one country, the largest of South America. It is called the *Empire of Brazil*.

The Andes mountain region, with the plains lying at its eastern foot, is divided into six countries: the *United States of Columbia*, and *Ecuador*, lying north of the Amazon; *Peru* and *Bolivia*, *Chili* and the *Argentine Republic*, lying south of the Amazon. *Patagonia* is an unsettled region.

These, with *Venezuela* and *Guiana*, on the north coast, and *Paraguay* and *Uruguay*, in the basin of the La Plata, are the countries of South America.

The White inhabitants of these countries are descendants of European colonists, who settled in various parts of the continent. The colonists of Brazil were chiefly from *Portugal*, the others from *Spain*.

I. Columbia, Ecuador, Peru, and Bolivia.—

1. These countries include the middle and northern part of the Andes. They all extend from the Pacific to the plains of the interior. The Andes in Peru and Bolivia contain rich mines of gold, silver, copper, and tin.

2. *Cities*.—The cities of these countries lie mainly in the valleys of the Andes.

Bogota is the capital and largest city of Columbia, *Quito* of Ecuador, and *Lima* of Peru.

Sucre is the capital of Bolivia, and *La Paz* is the largest city.

All of these cities, except Lima, are situated in the high, long valley, that lies between the summits of the Andes. They can be reached from the low plains, or from the coast, only by steep, narrow, and dangerous paths over the high mountains on each side of them. Lima is on the western slope, not far from the coast of Peru.

The seaports are *Cartagena*,¹ in Columbia; *Guayaquil*, in Ecuador; and *Callao*² the harbor of Lima, and *Arica*, in Peru.

From Peru we obtain Alpaca wool, dye-stuffs, and medicines; and *guano*, a rich manure found on the islands along the coast.

II. Chili lies wholly west of the Andes. It has rich copper mines.

Santiago is its capital and largest town. *Valparaiso*,³ about half-way from the Gulf of Arica to the Strait of Magellan, is the principal sea port, and the most important commercial town of the South Pacific.

It exports grain and large quantities of copper.

¹ Car-tah-ge'-nah.

² Cal-lah'-o.

³ Vahl-pah-ri'-so.

III. Argentine Republic.—This country includes the slope of the Andes east from Chili, and the Pampas.

Buenos Ayres, at the mouth of the Parana, is its capital and largest town, and is also one of the most important commercial cities of South America. It exports great quantities of hides and horns from the herds of cattle on the Pampas.

IV. Venezuela lies on the Caribbean Sea, and includes the western part of the mountain land of Guiana, and nearly all of the Llanos.

The capital and largest city is *Caracas*, in the mountains, midway between C. Gallinas and the mouth of the Orinoco. This city has often been much injured by earthquakes.

La Guayra,¹ on the coast opposite Caracas, is the seaport of Venezuela.

V. Paraguay is the only state of South America having no sea-coast. By means of the large rivers on each side of it, however, the sea can easily be reached.

Asuncion, situated on the Paraguay, is the capital and largest city.

VI. Uruguay, on the southern point of the table-land of Brazil, is the smallest country of South America.

Montevideo,² the capital and largest town, is the commercial rival of Buenos Ayres.

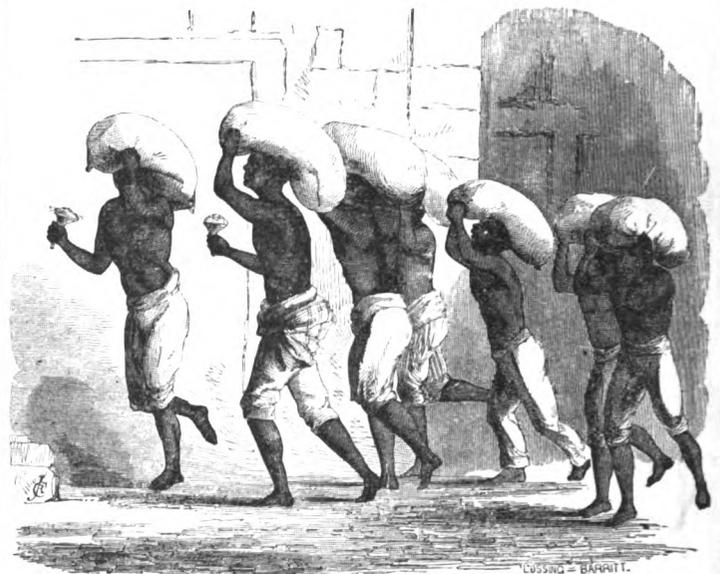
VII. Brazil includes the entire table-land of Brazil, and nearly all of the selvas of the Amazon.

It is therefore richer in vegetation than any other part of South America. The mountains of the interior contain mines of diamonds and gold, with iron and several other metals.

The larger part of the coffee and diamonds produced in the world come from Brazil.

The large cities are along the coast.

Rio Janeiro, the capital, is the largest city of South America. Its population⁴ is nearly half that of *New York*, the most populous



COFFEE CARRIERS OF BRAZIL.

city of North America. *Rio Janeiro* has a large, beautiful harbor, and is the principal place of export for coffee and diamonds.

Bahia, the second city in size, is on a fine bay, nearly midway between C. St. Roque and C. St. Thome.

Para, at the mouth of the Amazon, is the starting-point for steamers going up the river. From *Para* wood, dye-stuffs, medicines, and other products of the forest, are exported.

VIII. Guiana.—The eastern half of the mountain-land of Guiana belongs to three nations of Europe—the French, Dutch, and English.

The cities are *Georgetown*, in British Guiana; *Paramaribo*,³ in Dutch Guiana; and *Cayenne*,² in French Guiana.

Pepper, cloves, cinnamon, and nutmegs, are exported from *Cayenne*. The red, or *Cayenne* pepper, is a native of Guiana.

(TEACHERS.—Review South America. Questions and Exercises, page 6.)

NORTH AMERICA.

MAP STUDIES.

I. Form.—A. What is the most western point of North America? (See Map of the World.) What is its most eastern point? Most southern³ point?

How do its three coasts compare in length? How do the northern and eastern coasts compare?

In what respects, besides length, are these coasts alike? How, besides in length, does the Pacific coast differ from the others?

B. FORM DRAWN.—1. *Construction Lines.* Draw a vertical line, A, and divide it into four equal parts, marking one part M for the measure of the map.

At each point of division, and at the top and bottom of A, draw across it horizontal lines B, C, D, E, F. These are the *lines of construction*.

2. *Pacific Coast.*—At the left of A, make B one and one half M in length;

C and D each one M; E three-quarters of M. At the right of A, make F one M

At the end of B we find C. *Prince of Wales*.

Half-way between the ends of B and C is *Kenai*³ Pen.; and about two-thirds M to the left of this point, the end of *Aliaska*⁴ Pen.

Half-way between the ends of C and D is C. *Flattery*; and a very little above, and to the left of the end of D, is C. *Mendocino*.⁵

A little below, and to the right of the end of E, is C. *San Lucas*.

Half-way between E and F, on the line A, is *Acapulco*,⁶ and at the end of F is *Punta Mariato*.

Connect all these points one with another, and we have the general line of the Pacific coast, and can very easily draw the *true coast line*.

¹ Lah Gwy'-ra. ² Mon-te-vid'-e-o. ³ Poon-tah Mah-re-ah'-to. ⁴ Number of people.

¹ Par-a-mar'-e-bo.

⁴ Ahl-yas kah.

² Ka-en'.

⁵ Men-do-see'-no.

³ Ke-nah'ee.

⁶ Ah-kah-pool 'oo.

What and where are the other **two of the Great Lakes**? What stream do their waters form?

Opposite what point in the Atlantic coast is the head of L. Erie?

Draw these lakes and the St. Lawrence, stating where the lakes are situated.

In what direction, and into what water does the St. Lawrence flow?

2. *Hudson Bay System*.—What is the **largest river** flowing into Hudson Bay?

What is the upper portion¹ of the stream called? What lake connected with this river?

Draw and describe the Nelson, and its lakes and tributaries.

3. *Mackenzie System*.—Where is the **Mackenzie river**? What is the upper portion² of the stream called?

How many and what large lakes connected with it? What is the direction of the Mackenzie river?

Draw this river, with its lakes, stating the position of each.

4. *Secondary Streams*.—Where is the *Yukon* river? Draw it and describe its course. The *Rio Grande*? The *Colorado*³ (west of the Rocky Mts.)? The *Columbia*? *Frazer* river?

What is remarkable about the size of all the streams which flow directly into the Atlantic?

What is their general direction? What three flow directly south?

What river enters the sea near Nova Scotia, and in what direction does it flow?

In what direction do the *Potomac* and *Roanoke* flow?

What four large streams south of C. Hatteras?

What is their direction?

Describe the course of the *Alabama* river.

What streams enter the G. of Mexico between the Mississippi and the Rio Grande? Where is there another stream of the same name?

IV. Position of Countries.—1. What color marks the boundaries between countries?

What country in the northwest corner of North America? What island west of its southern point?

The north end of its main eastern boundary line is half-way between what two points?

Draw the eastern boundary of Alaska entire, commencing at the north, describing its position, and stating from what country this boundary separates it. What forms the northern, western, and southern boundaries?

2. What country occupies nearly all the northern part of the continent? Near what cape is the west end of its southern boundary? The east end?

What forms the largest part of the eastern half of this boundary? Opposite what cape does the boundary line leave the St. Lawrence? In what directions does it extend from this point?

How far from the Pacific coast does the boundary continue in a straight line? Draw and describe this boundary, commencing at the west.

What forms the northern boundary of British America? The eastern boundary? The western?

3. What country is in the central part of North America? What forms its eastern and western boundaries? What forms the eastern half of the southern boundary?

What country south of the United States? What river forms part of the boundary between these two countries? What portion of the boundary does this river form?

Opposite what important point farther west does the southern boundary leave the Rio Grande? Where does it strike the Pacific Coast?

Draw and describe this boundary, commencing at the west? What forms the eastern and western boundaries of Mexico?

What country south of the Caribbean Sea? Draw and describe the boundary between it and Mexico.

Of which country does Yucatan form a part?

What forms the other boundaries of Central America?

¹ Sas-katch-e-wan.

² Ath-a-bas'-ka.

³ Kol-o-rah'-do.

COUNTRIES OF NORTH AMERICA.

BRITISH AMERICA.

About how much of North America is included in British America? Name the capes, peninsulas, gulfs, and bays, on each of its coasts.

Name and describe the position of each of its islands on the Atlantic coast.

What islands on the Pacific coast of British America?

What large rivers wholly within British America?

Where is Frazer river?

What and where are the settled portions of British America? (See page 30.)

What and where is the capital of the Dominion of Canada? (See Text.)

What and where is its largest city?

What city east of Montreal?

Where is Toronto?

Can you think of any reason why all these cities have grown up on L. Ontario and the St. Lawrence?

What and where is Halifax?

MEXICO, CENTRAL AMERICA, AND ANTILLES.

What kind of land forms the larger part of Mexico? What kind of land along the coasts?

Near what city is the volcano of Popocatepetl?

What can you say of the size of the rivers of Mexico and Central America?

Can you give any reason why they are all so small?

What two peninsulas form part of Mexico? What body of water enclosed within Mexico?

What capes at the entrance of this gulf?

What isthmus in the southern part of Mexico?

Where are all the largest cities of Mexico? (See Text, page 30.) Why have they grown up there?

What and where is the capital of Mexico?

Where is Acapulco?

What commercial city on the opposite coast?

What peninsula forms the larger part of Central America?

What is the principal city of Central America?

What important commercial city in Cuba? Where is it situated?

UNITED STATES.

In what part of North America do the United States lie?

What bounds this country on the east and the west?

What river and gulf form most of its southern boundary?

What river and lakes form part of its northern boundary?

What countries border the United States?

Name the principal capes and peninsulas on the coast of the United States?

About how much of North America is included in the United States?

What part of the Atlantic highland is within the United States?

What part of the Pacific highland has it? What part of the Central Plain?

Name the principal mountains within the United States.

What great river system is wholly within the United States? What other partly within it?

Which of the streams entering the Pacific and G. of Cal. belong to the United States? In what country are most of the streams that enter the Atlantic?

What and where is the capital of the United States? (See Text, page 30.)

What and where is the largest city? The second in size?

Where is Baltimore? Boston? What large city (see page 30) on Long Island, very near New York? (In what business are these cities engaged?)

Where is Chicago? With what Atlantic city can it trade most easily?

How can goods be sent from one to the other?

Where is St. Louis? Cincinnati? What large city near the mouth of the Mississippi? Which of these three cities can most easily trade with the lake cities? Which with the Atlantic cities?

Where is San Francisco? How would a ship go from San Francisco to New York?

NATURE OF NORTH AMERICA.



Vanilla Vine.

Tobacco.

Cacao Tree.

Corn.

I. Surface.—*North America consists of three distinct regions: the Pacific Highland on the west, the Atlantic Highland on the east, and the Central Plain between them.*

1. *The Pacific Highland is a great plateau, filling nearly half of the continent.*

Upon this plateau rest two very high mountain systems: the Rocky Mountains, extending along the eastern part; and the system of the Sierra Nevada, forming the western border of the highland.

These mountains are, like the Andes, wild and broken; and many peaks are so high as to be covered throughout the year with snow.

West of the Sierra Nevada is a broad low valley, separated from the sea by ranges of low mountains.

2. *The Atlantic Highland consists mainly of the Appalachian mountain system.*

These mountains are low, with rounded summits. The ranges are nearly parallel, and are separated by broad, fertile valleys.

East of the mountains is a hilly region, then a low plain sloping gently to the sea.

3. *The Central Plain is highest along the central part, called the Height of Land. The northern portion slopes*

toward the Arctic ocean; the southern toward the Gulf of Mexico.

The slopes are so long and gradual, that one may go from the Arctic ocean to the Gulf, or from the Appalachian mountains to the Rocky Mts., and scarcely discover that one is either ascending or descending.

Some portions of the plain have a rolling surface, as in Ohio. Other portions are quite flat, as the prairies along the Mississippi.

II. Rivers and Lakes.—*North America has the largest fresh water lakes, and some of the largest rivers on the globe.*

They lie in the great Central Plain, and form four great systems: the Mackenzie and Hudson Bay systems, north of the Height of Land; the St. Lawrence and Mississippi, south of it.

These great streams make easy pathways from the sea to nearly all valuable parts of the interior of the continent.

III. Climate, Vegetation, and Animals.—*The northern part of North America lies near the North Pole, and the southern part near the Equator. We find, therefore, great differences in the climate of the different regions.*

1. *CENTRAL AMERICA, MEXICO, AND THE ANTILLES, have a very warm and moist climate, much like that of South America. The table-land of Mexico is like the high valleys of the Andes, cooler and drier than the low lands.*

The forests are dense, and have much the same trees and other plants as those of South America, and the animals are of similar kinds.

The cultivated lands are covered with extensive plantations of sugar cane, coffee, and tobacco; and fields of corn. Oranges, bananas, pine-apples, cocoanuts, and cacao, are raised in great abundance.

All these things are more largely produced in the Antilles than in either Mexico or Central America.

2. *FROM THE GULF OF MEXICO TO HUDSON BAY the climate is temperate. In the south the summer is long and warm, and there is little, if any winter. In the north the winter is long and cold, and the summer is short.*

Nearly all this region has an abundance of rain, brought to it by winds from the Pacific, the Atlantic, and the Gulf of Mexico.

There is, therefore, a luxuriant vegetation of forests, grasses, or cultivated plants.

The forests of the north consist of pine, oak, maple, and other trees which we are accustomed to see. In the south are the palmetto, magnolia, live-oak, and other trees not found at the north.

Around, and west of the Mississippi, are great tracts of country with few trees, except along the borders of the streams. The earth is covered with a rich growth of grass, mingled in spring-time with beautiful flowers. These treeless plains are called prairies, a French name, meaning meadows.

The cultivated lands of the cooler portion are covered

mainly with corn and wheat, mingled with fields of tobacco and flax. South of C. Hatteras are great plantations of cotton and rice; and on the warm, moist lands bordering the Gulf of Mexico, sugar-cane is raised.

The broad plateau between the Rocky and Sierra Nevada Mountains has very little moisture, and is almost a desert.

Upon the mountains are forests; and in the valleys at their foot are either forests, or fine fertile prairies.

The high cold mountains take away the moisture from the warm winds that come from the Pacific, and prevent it from falling in rain upon the plateaus east of them.

The streams flowing down the mountain slopes moisten the land at their foot, so that it is fertile, and can be cultivated.

In all the forest regions are found wild animals. Deer of different kinds, black bears, wild cats, and rattle-snakes, are common in the *Appalachian Mountains*.

Herds of buffalo, and many wolves, are found in the high plains east of the Rocky Mts.

The grizzly bear and panther are common in the *Sierra Nevada*.

In the colder forests of the north are, with the deer and moose, many beavers, martens, and other animals whose fur is valuable.

3. THE ARCTIC COASTS and islands are very cold. The earth is covered with snow and ice during all the year, except a month or two in the latter part of our summer.

Very few plants, therefore, grow here, except mosses and lichens, which live beneath the snow of the long, cold winter.

During the short summer the reindeer and musk ox feed upon the mosses and lichens. When the snow becomes too deep for them to reach the plants, they go southward into the forests.

The other animals found here are those which eat little or no vegetation.

In the sea are the whale and the narwhal, the largest of animals.

Along the coasts are the walrus and seal, which find most of their food in the sea; and the white bear, which feeds upon the flesh of the seal and other animals.

The coasts are also thronged with wild ducks, geese, and other waterfowl, which find most of their food in the sea; and they, with their eggs and young, become the food of some kinds of fur-bearing animals, as the weasel and mink.

* QUESTIONS.—Why is there so luxuriant a vegetation in the southern part of the continent? Suppose it were just as warm as now, but without moisture, what would be its condition in regard to vegetation?

Have you ever been in any very warm country?

Why is the table-land of Mexico cooler than the coast lands? Being cooler and drier, how do you suppose it compares in vegetation?

Why is there so little vegetation on the plateaus of the western part of North America? Why is there more on and near the mountains than elsewhere?

Why is there so little vegetation in the Arctic regions? How can so many animals live here, where there is so little vegetation? Have you ever seen any of the animals of these countries?

Why should the animals of the cool parts of the continent be covered with such fine fur?



Esquimau dog. Esquimaux. Seal. Narwhal. Whale.
ARCTIC SCENE.

IV. The Native People of the Arctic coasts are called *Esquimaux*.¹ They are a savage people, who are found only in very cold countries. The natives of other parts of the continent are Indians.

The *Esquimaux* feed upon fish and the flesh of the seal, and other animals of this region. They think the fat or blubber of the whale a great delicacy.

They clothe themselves with the skins of the animals; and live usually in snow houses, which they warm somewhat by burning the fat of the sea animals in lamps of bone.

The *Indians* are also savages, spending their time in hunting, fishing, and making war upon each other.

V. The White Settlers of North America, like those of South America, came from Europe. The warm regions were settled by Spaniards; the temperate, mainly by English people. The *United States and the West Indies* contain great numbers of negroes.

COUNTRIES OF NORTH AMERICA.

(Governments, page 89, Section III., and Tables I., II., and III.)

I. **Alaska.**—The northwestern corner of the continent belonged to Russia until the year 1867, and was therefore

called *Russian America*. It now belongs to the United States, having been bought from Russia, and is called Alaska.

* NOTE TO TEACHERS.—The above questions, and others connected with the descriptive matter, are not upon the text itself, as none are needed. They should be asked after the text has been recited, in order to cause the pupils to think about what they have learned, instead of merely remembering it mechanically.

This country is occupied almost wholly by Indians and *Esquimaux*. It is very cold, and is at present valuable mainly on account of its furs and fisheries.

¹ Es'-ke-mos.

II. Danish' America.—*Greenland* and *Iceland* belong to Denmark, and are therefore called *Danish America*.

These are also cold countries, valuable mainly for whale-fishing and seal-hunting.

In *Greenland* there are few inhabitants, except the *Esquimaux*.

Iceland is warmer than *Greenland*, and potatoes, turnips, and some other hardy food-plants, can be raised. There are more white people here than in *Greenland*.

III. British America is the name given to all of North America which belongs to England. It extends from the Great Lakes to the Arctic ocean; and from the Atlantic to the Pacific.

1. *The larger part* of the country is still covered with forests, and peopled only by Indians, hunters, and fur-traders.

2. *The settled regions* are the islands about the mouth of the St. Lawrence, the St. Lawrence basin, the Red River country, the Frazer River basin, and Vancouver Island. All, except Newfoundland, are united in the *Dominion of Canada*.

3. *Commerce* is carried on with Europe; and, across the lakes and St. Lawrence, with the United States. The principal exports are lumber and furs.

4. *The largest cities** of Canada are on Lake Ontario and the St. Lawrence. *Montreal*, on an island in the St. Lawrence, is the largest. *Quebec*, farther down the river, and *Toronto*, near the head of L. Ontario, are next in size.

Ottawa,² on the Ottawa river, is the capital of the Dominion of Canada. *Halifax*, the capital of Nova Scotia, is the principal seaport of British America. Government, see p. 90.

IV. Mexico and Central America each consist of several distinct states, united in one country.

1. Though these countries have so fine a climate, and might yield so many valuable agricultural productions, yet agriculture is very little carried on. Raising herds of cattle and horses is the leading occupation. *Silver mining* is somewhat important in Mexico.

2. *These countries* have little commerce. Their leading exports are dye-stuffs, silver, cattle and hides.

3. *The largest cities* are on the table-lands of the interior, which have a cooler and more healthful climate than the coast.

Mexico, the capital and largest city of Mexico, is situated on the high table-land surrounded by mountains, and in sight of the great volcano, *Popocatepetl*.³

*Vera Cruz*⁴ is the principal commercial town on the Gulf coast, and *Acapulco*,⁵ on the Pacific coast.

The largest city of Central America is *Gautemala*,⁶ the capital of a state of the same name.

V. The Greater Antilles.—*Cuba* and *Porto Rico* belong to Spain, and *Jamaica* to England. *Hayti*, also called *San Domingo*, is independent. It is peopled chiefly by negroes, and is divided into two states, *Hayti* and the *Dominican Republic*.

* Teachers who may desire that all the capitals of the provinces be learned, will find them on the map of the United States, page 51.

¹ Dane-ish.

² Ot'-ta-wah.

³ Pò-po-cat'-a-petl.

⁴ Vay'-rah-croos.

⁵ Ah'-kah-peol'-co.

⁶ Gaw-ta-mah-la.

Agriculture is the leading occupation of these islands. *Sugar, coffee, tobacco*, and the fruits of warm countries, are raised in great quantities.

Cuba is said to produce about one-third of all the sugar raised in the world.

Commerce is extensive. It is carried on mainly from *Havana*, in Cuba. This is the largest city of the Antilles, and one of the most important sugar markets on the globe.

VI. United States.—All that part of North America lying between the Great Lakes and the Gulf of Mexico forms our own country, the *United States*. (Government, p. 89, III.)

This country is situated in the warm-temperate part of North America, and contains the most desirable portion of the continent.

It includes the southern half of the Central Plain; the plains bordering the Atlantic; the broad valleys along the Pacific; the larger part of the Appalachian mountain system; and the broad plateaus and high mountains of the Pacific highland.

The plains and valleys are very fertile, and produce large quantities of grain, cotton, rice, and tobacco. Fine live-stock and wool, butter and cheese, beef and pork, are also produced.

Cotton and rice are raised in the States lying south of Cape Hatteras.

The mountains of the east contain rich mines of coal and iron, and quarries of the finest building stone; and their rapid streams furnish great water-power. The Rocky and Sierra Nevada mountains have rich gold and silver mines.

There are copper mines on the shores of Lake Superior, and lead mines on the upper Mississippi, from which great quantities of these metals are obtained.

The great rivers and lakes in the interior enable the country to carry on a large domestic commerce; and its long coast line, where are many very fine harbors, fits it for a large foreign commerce.

Cities.—The United States contain many fine commercial and manufacturing cities. *New York* and *Philadelphia* are the largest.

New York is situated at the mouth of the Hudson, on one of the finest harbors in the world, and is the greatest commercial centre of America.

Philadelphia, on the Delaware river, is near the rich coal and iron mines in the Appalachian Mts., and is the greatest manufacturing city of the New World.

Brooklyn, Baltimore and *Boston*, are the remaining great cities of the Atlantic coast.

Brooklyn is on the west end of Long Island, and is separated from New York only by the *East River*, which forms a part of the harbor.

Boston has a most excellent harbor, at the head of Massachusetts Bay.

Baltimore is on an arm of the Chesapeake Bay, near the mouth of the Susquehanna river.

The great cities of the Mississippi basin are *Cincinnati, Pittsburg*, and *Louisville*, on the Ohio; *St. Louis* on the Mississippi, near the mouth of the Missouri; and *New Orleans*, near the mouth of the Mississippi.

Chicago, near the head of Lake Michigan, is the largest city of the St. Lawrence basin; and *San Francisco* the largest on the Pacific coast. *Washington*, on the Potomac, is the capital of the United States.

NOTE.—Full details on the United States, commencing page 52, may be studied now if teachers prefer.



MASCARENE IS^{ds}

Robinson I^{le}

Mauritius I^{le}

Reunion I^{le}

Bombay I^{le}

Entered according to Act of Congress in the year 1874, by Charles Scribner & Co. in the Clerk's Office of the District Court of the United States for the Southern District of New York.

Where are the *Kong Mts.*? How far and in what direction do they extend? Draw them, and state what you have now learned about their position.

Draw the *Atlas Mts.* and state where they are situated, in what direction and how far they extend.

IV. Rivers and Lakes.—What is the longest river of Africa? What two large lakes¹ supply it with water? Where are these lakes situated?

What two tributaries has the Nile from the plateau of Abyssinia?

At what point in its entire length does the Nile receive its most northern tributary? Draw the lakes which feed the Nile, describing their position.

Draw the Nile, describing its course.

Describe the course of the Blue Nile and Atbara.²

What large stream rises in the west end of the Kong Mts.?

Draw the Niger, and describe its course?

Where is lake *Tanganyika*?³ Lake *Nyassa*?⁴

What lake in a low plain south of the G. of Sidra?

What large river in Southern Africa, flowing eastward?⁵ Draw it, and describe its course.

What river enters the Atlantic between C. Frio and C. of Good Hope?

What large river enters the sea south of C. Lopez?

Draw the Congo and Orange rivers, describing their course.

What two rivers enter the sea on opposite sides of C. Verd? Where is their source?

What stream⁶ flows from the plateau of Abyssinia into the Indian ocean?

V. Countries of Africa.—1. *Nile Countries.*—What country at the mouth of the Nile?

What bounds Egypt on the east? On the west? On the north?

What country⁷ south of Egypt? How is Nubia bounded?

Where is Abyssinia?

Which of these three countries is largest? Which smallest?

Which has the best situation? Why?

Which consists of high land? Which has the most low land?

Draw the boundaries of these three countries.

2. *Coast Countries.*—What name is given to that part¹ of Africa which borders the Gulf of Aden?

What country on the coast south of the Jub river?²

What two countries are separated by the Zambesi?

Name the coast countries between C. Guardafui and the Limpopo river.

What country south of the Orange river? Where is Natal?³

Into what two large countries⁴ are the Atlas Mts. and the plains south of them divided?

What country east of Algeria?

What country on the Mediterranean next west of Egypt?

What are these four countries together called? (See page 35.)

What is the country crossed by the *Senegal* and *Gambia* rivers called?

What name is given to the southern slope of the Kong Mts.?

What is the name of the country crossed by the Congo river?

Where is Liberia? Sierra Leone?⁵

3. *Interior Countries.*—Where is *Soudan*?⁶ *Fezzan*?

VI. Cities and Towns.—What city⁷ in Egypt, on the Nile?

Where is Alexandria?

What town⁸ at the mouth of the Blue Nile?

What city⁹ on the plateau of Abyssinia?

Where is Zanzibar? Mozambique? Where is Cape Town?

Which of these towns is the most important?

Where is San Paulo de Loanda? Abbeokuta?¹⁰

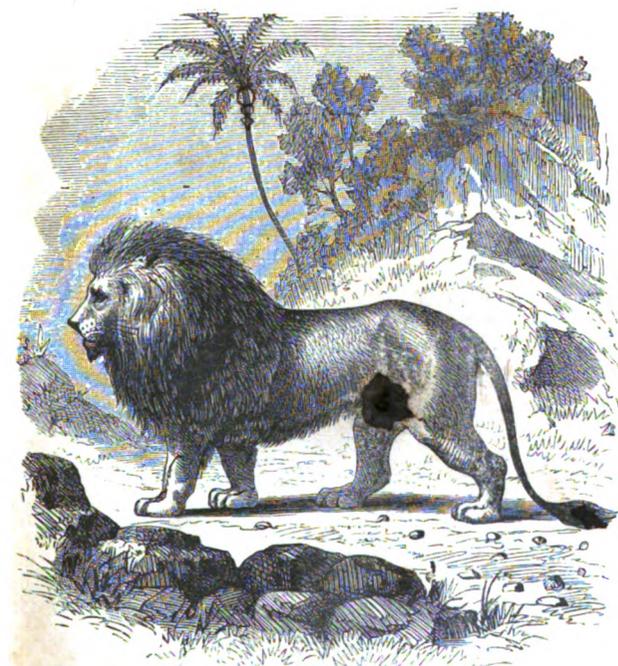
What and where is the capital of Liberia?

Where is the city of Marocco? Algiers? Tripoli? Tunis?

What city of Sahara on the Niger? What city in Fezzan?¹¹

Draw a map of Africa, and place within it these cities and towns, stating where each is situated.

NATURE OF AFRICA.



AFRICAN LION.

I. Surface.—Africa consists principally of high land. A belt of low land skirts the entire coast; but the only extensive low plains known in the interior are at the foot of the Atlas mountains and around Lake Tchad.

Mountains.—Africa has no such great connected mountain systems as are found in North and South America.

The highest and longest mountain region extends along the eastern coast from C. of Good Hope to the Jub river. From this point it extends directly north, terminating in the plateau of Abyssinia.

The highest peaks known are the volcanoes *Kenia* and *Kilima Njaro*, nearly four miles in height. These peaks are higher than any in North America, but not so high as *Nevado de Sorata*, in South America.

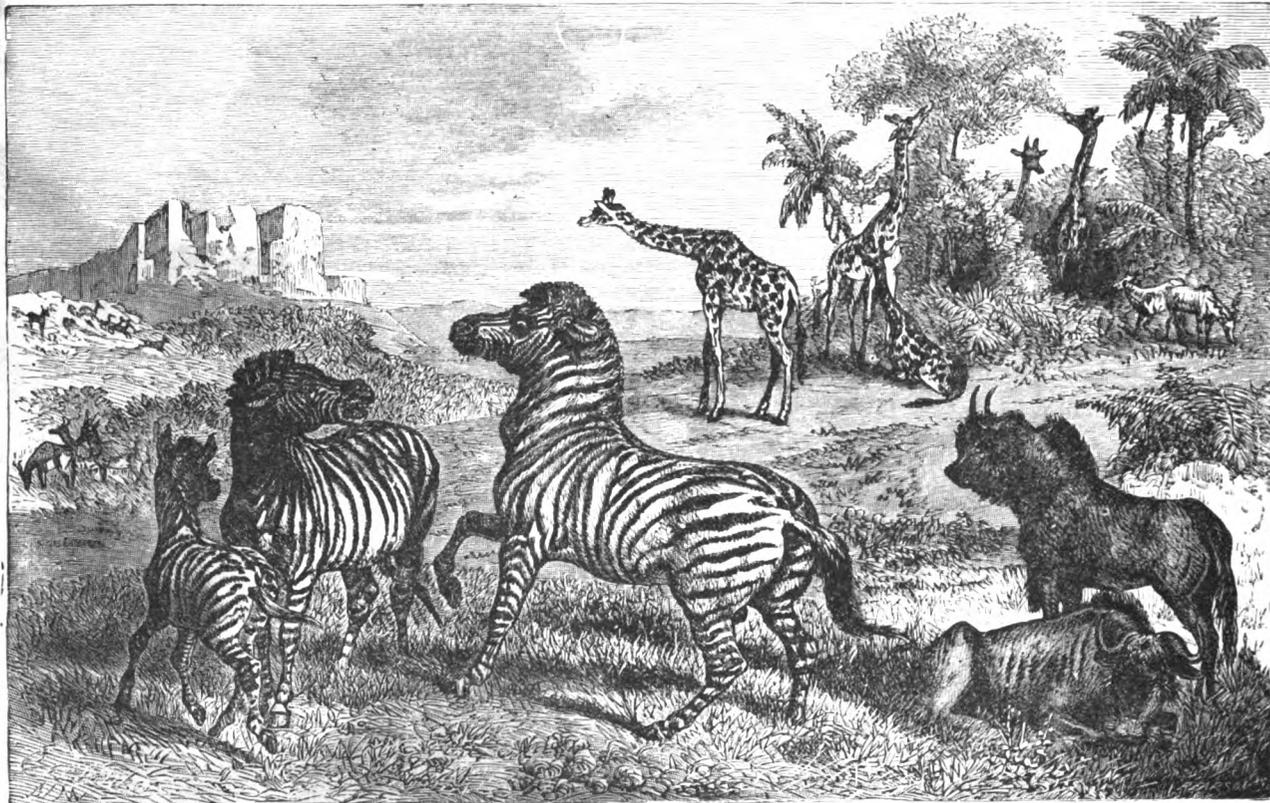
The *Atlas Mts.*, on the northern coast, and the *Kong*, south of C. Verd, are the other important mountain regions of Africa.

The interior of central and southern Africa is not very well known. North of L. Tchad the surface is sandy or rocky. It is broken by many short ranges or groups of mountains, most of which consist of naked rock.

II. Rivers and Lakes.—Africa has fewer rivers than either North or South America, though it is much larger than either of those continents.

¹ Ny-an'-za is an African word, meaning a body of water, or lake. ² Aht-bah'-rah.
³ Tahn-gahn-ye'-ka. ⁴ Nee-as'-sa. ⁵ Zahm-ba'-zee. ⁶ Joob. ⁷ Nu'-be-ah.

¹ So-maw'-le. ² Zang-ga-bar'. ³ Nah-tahl'.
⁴ Mah-roc'-co and Al-gee'-re-ah. ⁵ Se-er'-ra Le-o'-ne. ⁶ Soo-dahn'.
⁷ Ki'-ro. ⁸ Kar-toom'. ⁹ Gon'-dar.
¹⁰ Ab-be-o-koo'-tah. ¹¹ Moor-zook'.



Antelopes.

Zebras.

Giraffes.

Gau, or Horned Horse.

SCENE IN SOUTH AFRICA.

The lakes of Africa are among the largest lakes of fresh water on the globe. *Lake Tchad* is the most northern. The others lie in the eastern part of the equatorial region.

The lakes forming the source of the Nile were discovered but few years since, and their exact form and size are not yet known.

The Nile is one of the longest rivers on the globe, but it has few large tributaries. In all the lower half of its course it has none at all.

The Nile overflows its banks each year, and thus greatly enriches the land bordering it. It rises from June until September, when all the low land is covered. It then gradually falls, until, in December, it is again within its proper channel.

III. Climate, Vegetation, Animals.—Africa is the hottest and driest of all the continents.

Its animals are larger and more numerous than those of any other continent; but *its vegetation* is less luxuriant than that of South America.

1. FROM L. TCHAD TO THE ATLAS region rain scarce ever falls; and, in the interior, years pass without a cloud being seen. This region is called the *Sahara*, or Great Desert.

Plants cannot grow except here and there where a spring, stream, or well, moistens the ground for a short distance around it.

Where this is the case the earth is covered with grass and shaded by a beautiful grove of *date palm trees*. Thus is formed a little island of green in the midst of the desert of sand and naked rock.

Such a fertile spot in a desert is called an *oasis*.

Oases are quite numerous along the borders of the Sahara, and around the mountains of the interior where there are occasional rains.

The valley of the Nile, moistened by the overflow of its waters, has a rich soil and luxuriant vegetation. All the plants of warm countries may be raised here in abundance.

2. FROM L. TCHAD TO THE ZAMBESI is a moist region, covered with forests and grassy plains. This part of Africa is somewhat like the plains of the Amazon.

On the plateau of Abyssinia are large forests of the *coffee tree*. Here also, and in Senegambia, are trees yielding fragrant and valuable gums: *gum arabic*, *gum senegal*, *gum myrrh*, &c.

Around the lakes and rivers are great marshes, with thickets of cane, rushes, and swamp grasses, surrounded by forest trees.

Here live the *elephant*, *rhinoceros*, and *hippopotamus*, the largest of land animals; and the *crocodile*, the largest of reptiles. *Lions*, *leopards*, and other beasts of prey, are found in great numbers, besides birds, *monkeys*, and many other animals.

3. SOUTH OF THE ZAMBESI are plains, with few trees, but covered in the wet season with a great variety of plants.

This region, and the borders of Sahara, are the home of thousands of *antelopes*; and of the *giraffe*, the *zebra* and *ostrich*.

4. CAPE COLONY and the Atlas countries have a *warm temperate* climate, with rainy winters and dry summers.

Their mountains are covered with fine forests, in which are found pines and oaks, almonds, chestnuts, plum and fig trees. Grain, cotton, rice and sugar-cane, grow in the cultivated lands.

COUNTRIES OF AFRICA.

I. People.—Africa is the native country of the negroes. They possess nearly all the continent south of the Sahara.

Sahara and the Mediterranean coasts are inhabited by white people. They are *Arabs* who came into Africa from Arabia; and *Berbers* who possessed the country before the Arabs conquered it.

Many *Berbers* live upon the oases of the desert, cultivating the *date*, which forms their principal food. They have some quite large cities.

II. Countries.—Africa has no great and powerful countries. Those along the Mediterranean are the most important; but they are far behind what they were in former times. From these countries we obtain the products of the interior, which are brought down the Nile, or, by caravans, across the Sahara. (For governments of African countries, see page 91, IX. and X.)

North Africa.—*Egypt* is famous for its pyramids and ruins of temples, thousands of years old. Its capital is *Cairo*, on the Nile. *Alexandria*, on the Mediterranean, is the principal commercial town.

Barbary.—*Barca*, *Tripoli*, *Tunis*, *Algeria*, and *Marocco* are called Barbary, the country of the Berbers. *Algeria* now belongs to France. *Fezzan*, a large oasis in the Sahara, belongs to *Tripoli*, and *Murzuk* is its capital and largest city.

The most important cities of Barbary are the capitals, which, except two, have the same name as the States. The capital of *Algeria* is *Algiers*; of *Barca*, *Benghazi*.

Arab merchants travel back and forth over the Sahara in companies called caravans, carrying goods from the Mediterranean cities to exchange in *Soudan* for *palm-oil*, *ivory*, *feathers*, *gums*, and other products of the interior.

Nubia, on the Nile, belongs to *Egypt*. *Khartoom* is its principal town.

Abyssinia is divided among several native kings, who are often at war, and whose people are scarcely more than savages. *Gondar* is the principal town.

Sahara is occupied by people who have no settled home, but are constantly wandering from place to place.

Some tribes raise herds of camels, horses, sheep, and goats, with which they go from one oasis to another in search of pasture.

Others live by robbing the caravans that cross the desert from time to time. The *Tuaregs*, west of *Fezzan*, live thus.

Eastern and Western Coasts.—The principal countries on the eastern coast are *Anguabar* and *Mozambique*. In the south are *Natal* and *Cape Colony*. On the western coast are *Benguela*, *Liberia*, *Sierra Leone*, and *Senegambia*.

In these places companies of people from Europe or America have formed settlements, called *colonies*, and have taught the natives many things.

These settlements were formed mainly for trade with the natives. Commercial towns are growing up in each.

Cape Colony, *Natal*, and *Sierra Leone*, belong to *England*. *Liberia* was a colony established as a home for free negroes from the United States. It is now an independent country belonging to them. *Monrovia* is its capital.

Cape Town, the capital of *Cape Colony*, is an important commercial city.



TUAREG WARRIOR.

Zanzibar, *Mozambique*, and *Port Natal*, are the principal towns on the east coast. *San Paulo de Loanda* is a trading town, and capital of *Benguela*.

The other coast countries are native kingdoms which are of little importance. *Abeokuta*, in one of these kingdoms, is the largest negro town known.

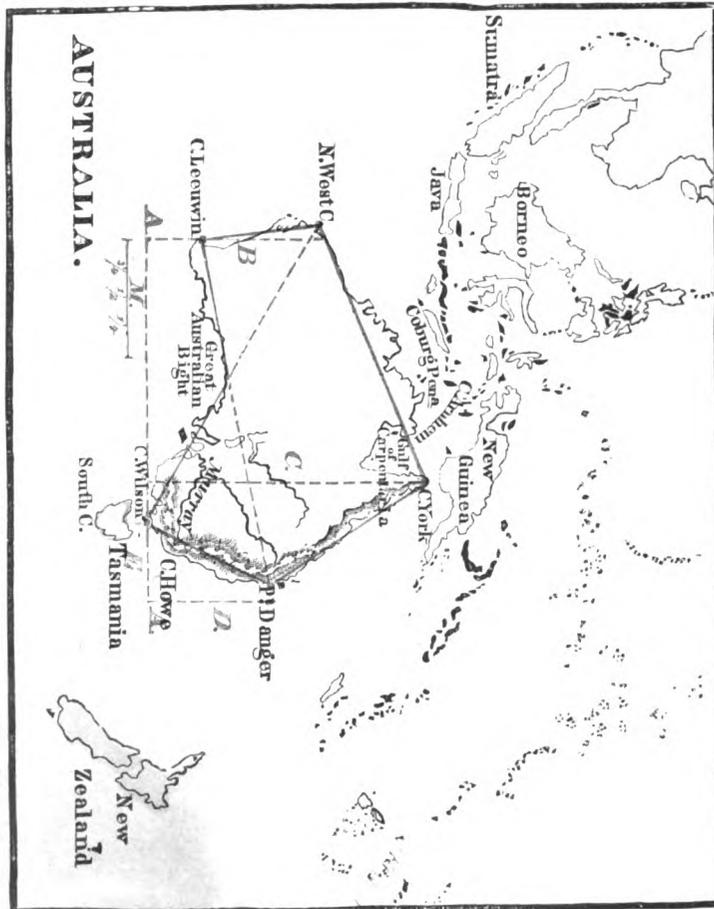
The interior of Africa is occupied by native kingdoms, the people of which, except in *Soudan*, are generally savages.

Soudan contains a number of cities which have a large trade by caravan with the Mediterranean countries. *Timbuctoo*, on the *Niger*, is one of these commercial cities.

The exports of Africa are mainly *palm-oil*, *gums*, and *fruits* from the forest; *ivory* and *skins* from the wild animals; *feathers* of the ostrich and other birds; and *gold dust* from the sand in the river beds.

AUSTRALIA.

MAP STUDIES.



I. Form and Size.—A. How does Australia compare in size with the other continents? (See page 10.)
 What is its direction from Asia? How is it connected with Asia?
 By what oceans is Australia surrounded?
 Which has the more regular form—Australia or Africa? Australia or South America?
 What is the most northern point of Australia? The most southern point?
 Which of these two points is farther eastward?
 What is the most eastern point of the continent? The most western point?
 What cape¹ nearly south of Northwest Cape?
B. Form Drawn.—1. *Construction Lines.*—Draw a horizontal line, A, and divide it into *three equal parts*, marking one part M.
 At *each end*, and at the *right hand* point of division, draw vertical lines, B, C, D, upward.
 2. *Eastern Coast.*—On A, about one-fourth M to the right or C, is C. Wilson. Make C two and one-third M in length, thus finding C. York.
 Make D one M, thus finding, a little to the left of its end, Pt. Danger. Connect these points, and we find the general line of the eastern coast.

3. *Western and Northern Coasts.*—Make B one and one-half M, thus finding, a little at the left of its end, Northwest Cape.
 On B, one-half M from A, is C. Leeuwin. Connect C. Leeuwin, Northwest Cape, and C. York, and we find the general line of the western and northern coasts.
 4. *Southern Coast.*—Draw a line from C. Leeuwin directly toward Pt. Danger, and from C. Wilson directly toward N. West Cape. At their meeting is the head of the Great Australian Light. These two lines give the southern coast.
D. CONTOUR DRAWN.—At what point between C. York and N. W. Cape is Coburg peninsula?
 What cape² and gulf³ between C. York and Coburg Pen.?
 What cape northeast of C. Wilson?
 Draw the coasts of Australia, naming all the important points.
 Islands.—What island⁴ south of Australia?
 What islands east of C. Howe?
 Draw Tasmania, stating where it is situated.
 What large island directly north of C. York? Draw it, and state where it is situated.
 Draw, and state where they are situated:—Borneo,⁵ Sumatra,⁶ Java.⁶

II. Surface.—(See Map on the opposite page.)
 In what part of Australia is its highest belt of land?
 What name is given to this belt of high land?
 What kind of land along the western coast?
 Where are the great plains of Australia?
 Mountains.—In what part of Australia are the highest mountains?
 What are they called?
 Ans. The mountains west of Cape Howe are called the *Australian Alps*; those between C. Howe and Point Danger, the *Blue Mts.*
 Draw these mountains, stating where each is situated.

III. Rivers and Lakes.—Where are the only large rivers of Australia?
 Draw the Murray, and describe its course. The Darling.
 In what direction from the mouth of the Murray are the largest lakes known in Australia?
 Which are the two principal lakes? (See text.)
 Which are the most important colonies of Australia? (See text.) Where is Victoria? South Australia? New South Wales?
 Name the principal cities of Australia, stating where each is situated.

NATURE OF AUSTRALIA.

I. Surface.—Very little is known of Australia, except the southeastern portion, and a narrow belt along the coasts.

The interior is thought to be a great plain, much of which is nearly or quite a desert.

The *Australian Alps*, extending from C. Howe westward, are the highest mountains. The Blue Mountains are next in height.

These mountains are but little higher than the Appalachian system of North America.

¹ Lu-win.

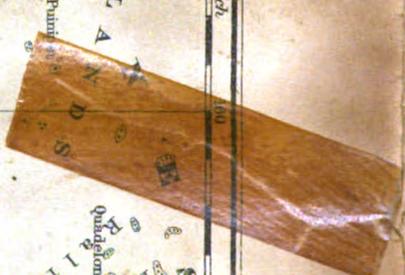
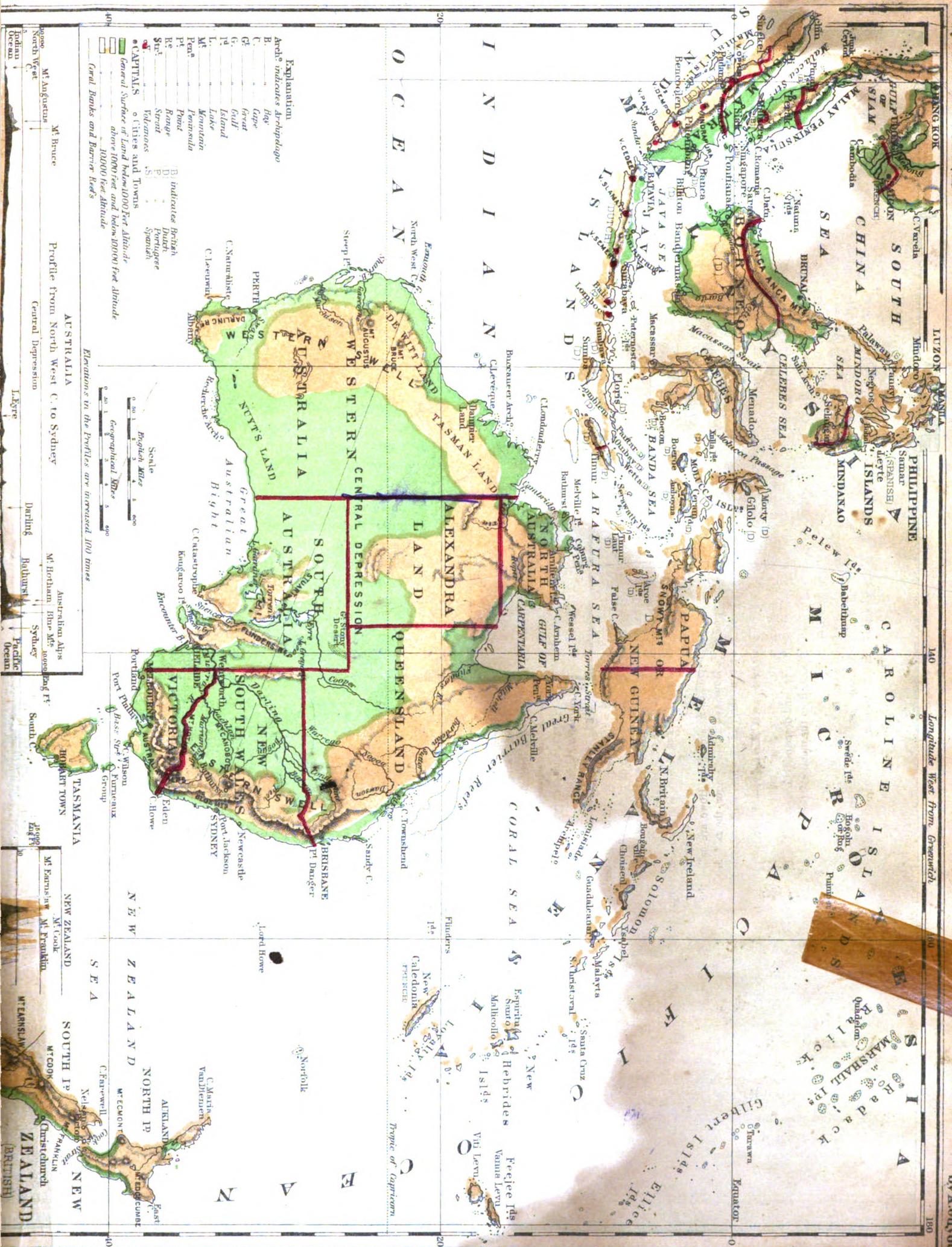
² Arn'-em.
³ Bor'-no-o.

⁴ Car-pen-tah'-re-a.
⁵ Soo-mah'-tra.

⁶ Taz-ma'-ne-a.
⁷ Jah'-va.

AUSTRALIA

by A. Guyot





roo. Natives and Houses.
SCENE IN AUSTRALIA.

II. Rivers and Lakes.—The Murray is the only large river known in Australia. Its most important tributary is the Darling.

These streams are formed by the waters from the Australian Alps and Blue Mountains, and flow westward through a fertile and beautiful plain.

The basin of the Murray contains rich gold mines, and is also a fine country for agriculture and grazing.

The lakes of Australia are generally salt, and most of them very shallow. Lake *Gairdner*, Lake *Torrens*, and Lake *Eyre*, are the largest known.

III. Climate, Vegetation, and Animals.—Australia has a warm climate, and is also somewhat dry.

(REVIEW *Australia*, Exercises, page 6.)

The northern part is the warmer, and has rainy and dry seasons like South America.

The southern part is sometimes without rain for the larger part of the year, while at other times there is an abundance of rain throughout the year.

The plants and animals of Australia are, most of them, different from those of every other continent.

The forests are scattering, and the trees have narrow, slender leaves, so that they cast little shadow. There are among them many beautiful flowering trees.

There are scarcely any native plants which can be used for food.

The animals are somewhat small. The *kangaroo* is the largest, and many of the others resemble it greatly. The birds are noted for their beautiful colors, but there are few singing birds.

IV. People.—The natives of Australia are black, and resemble the negroes of Africa. They are entirely savage.

There are now many white people in the southeastern part of the continent.

V. Colonies.—Australia belongs to England. It is divided into several colonies. (Government, see page 91, X.)

The most important are *Victoria*, south of the Murray river; *New South Wales*, which extends from the Murray northward a little beyond the Darling; and *South Australia*, lying west of the other two.

These colonies contain the most valuable portion of the continent.

Grazing and *mining* are the leading occupations of these colonies. Wool and gold are the principal exports.

More gold is obtained from Victoria and New South Wales than from any other part of the world, except perhaps, California.

VI. Cities.—The largest cities of Australia are *Melbourne*, capital of Victoria; and *Sydney*, capital of New South Wales.

Adelaide, capital of South Australia, is much smaller, but is an important commercial town.

ASIA.

MAP STUDIES.

I. Form.—A. How does the coast of Asia¹ differ from that of the other continents you have studied?

How many great bends in the eastern coast? How many in the southern?

What is the most southern point² of the continent? What is the most eastern point? Where is Sinai³ Pen.? Str. of Bab-el-Mandeb?

B. FORM DRAWN.—1. *Construction Lines.*—Draw a vertical line, A, and divide it into four equal parts, marking one part M.

At the top and bottom of A draw horizontal lines, B and F, to the right. At each point of division draw horizontal lines, C, D, E, across A.

2. *Pacific Coast.*—Make B one and three-fourths M, thus finding *East Cape*. Make F two-thirds M, thus finding *C. Romania*.

¹ A'-she-a.

² Ro-mah'-ne-a.

³ Si'-nn-i.

Connect C. Romania with East Cape, thus finding the general line of the Pacific coast.

The points of the three great inward bends of this coast are on the lines C, D, E, just within the coast line.

3. *Red Sea Coast.*—At the left of A make D a little more than two and one-fourth M in length, thus finding *Sinai Pen.*

Make E two and one-fourth M, thus finding Str. of Bab-el-Mandeb.

Connect these two points, thus finding the direction of the Red Sea coast.

4. Connect C. Romania with Str. of Bab-el-Mandeb, thus finding the general direction of the southern coast.

5. Connect Sinai Pen. with East C., thus finding the general direction of the northern coast and the line of separation from Europe.

C. CONTOUR DRAWN.—1. (See Map, next page.) Where is the Sea of Okhotsk? ¹ What peninsula ² between it and East C.?

Where is the Yellow Sea? What sea between it and Okhotsk Sea?

What peninsula between Japan Sea and Yellow Sea?

What sea southeast of China? What gulfs form parts of it?

What peninsula south of the G. of Siam?

Draw this coast, naming each of these seas and peninsulas.

2. What peninsula ⁴ nearly midway from C. Romania to Str. of Bab-el-Mandeb?

To which of these points is it nearer? What cape ⁶ forms its southern point?

What gulf ⁶ between Deccan and Malay Pen.?

Where is Ras-el-Had? What gulf ⁷ northwest of it?

What peninsula between Persian G. and Red Sea?

Draw the coast from Sinai Pen. to C. Romania, naming its peninsulas, capes, and gulfs.

3. The north end of what mountain ⁸ range is about midway between East C. and Sinai Pen.?

What cape ⁹ one-third the distance from Ural Mts. to East C.?

Draw the coast from Ural Mts. to East C.

4. What mountains ¹⁰ between the Ural and Sinai Pen.? What sea east of the Caucasus Mts.?

What two seas and peninsula between Sinai and the Caucasus? How do the three compare in breadth?

What river between the Ural Mts. and the Caspian Sea?

Draw the boundary between Asia and Europe, naming all its parts.

ISLANDS.—What large islands east of Japan Sea?

Where is Formosa? ¹¹ Hainan? ¹²

Where are the Philippine Ids.? Borneo? Celebes?

Where is Sumatra? ¹³ Java? ¹⁴ Ceylon? ¹⁵

II. Surface.—How many great mountain ranges in the central part of Asia? In what direction do they extend? Where are the Himalaya ¹⁶ Mts.? The Altai Mts.? ¹⁷

What two ranges ¹⁸ between the Himalaya and Altai? Where are the Great Khingan ¹⁹ Mts.? The Stanovoi? ²⁰

Draw these mountain ranges, and state where each is situated.

III. Rivers and Lakes.—What three great rivers ²¹ flow into the Arctic Ocean?

In what mountains do the first two rise? In what direction do they flow? What large lake ²² feeds the Yenisei?

Where does the Lena rise, and in what direction does it flow?

Draw these streams, describing the course of each.

What river ²³ rises in the east end of the Altai Mts. and flows eastward? What sea does it enter?

In what mountains do the Hoang-ho ²⁴ and Yang-tse-kiang ²⁵ have their source? Into what sea do they flow? Why is the upper part of their course so crooked, while the lower is so straight?

Draw these three streams, describing the course of each?

What large river ²⁶ flows southward into the South China Sea?

Where is the Ganges River? ²⁷ The Indus?

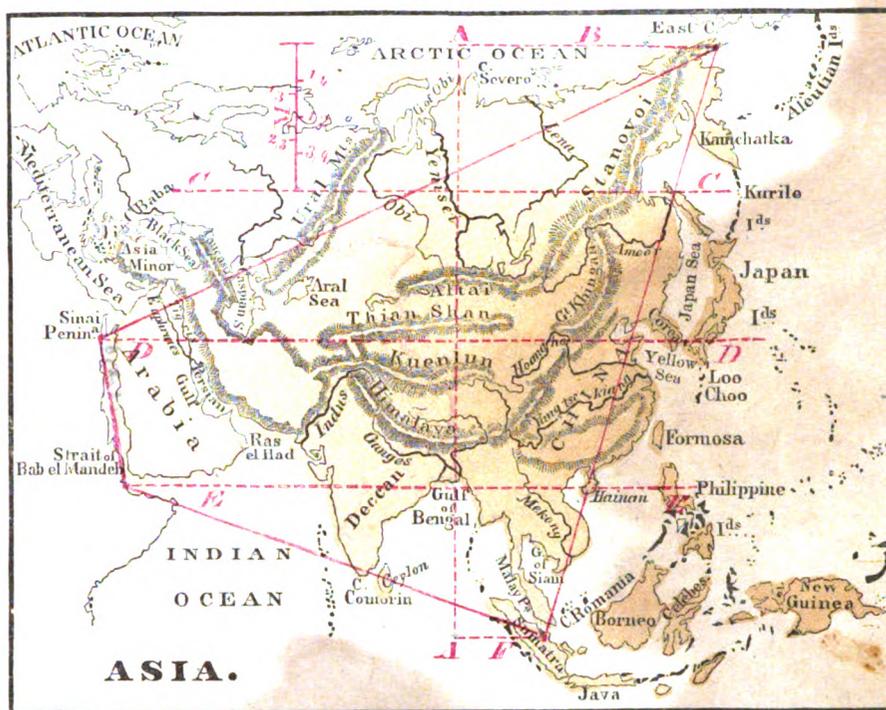
Where are the Euphrates ²⁸ and Tigris rivers?

Draw these streams, describing the course of each.

Where is Aral Sea?

What two streams ²⁹ flow into Aral (ar'-al) Sea?

Where is Lake Balkhash? ³⁰



COUNTRIES OF ASIA

[To be used in connection with the text.]

In what part of Asia is the Chinese Empire?

What mountains and river form its northern boundary? What mountains form part of the southern boundary?

What forms the eastern boundary?

In what part of the Empire is China? Where is Thibet? ¹ Mon-go'-lia? Man-chu'-ria?

Where and what is Pe-king? Can-ton?

* Draw upon the map of Asia the boundaries of the Chinese Empire, and place these two great cities in their correct position.

What country ² south of the Himalaya Mts.? What gulf east of it? What sea west? What and where is the capital of India? Where is Bombay?

* Draw the boundaries of India, and place these cities in their correct position.

What name is given to all of Asia north and west of the Altai Mts.? To what country does Siberia belong?

Where are the three countries, Anam, ³ Siam, and Bur'-mah?

Where are Turkestan, ⁴ Afghanistan, ⁵ and Beloochistan? ⁶

What country south of the Caspian Sea? What bounds it on the south?

What country touches Persia on the west? What two on the east? What and where is Ispahan? Teheran? ⁷

Draw the boundaries of Persia, and locate these cities.

By what seas and what countries is Turkey surrounded?

Where is Smyrna? ⁸ Baghdad? ⁹ Jerusalem? Damascus?

What country between the Red Sea and Persian Gulf?

Where is Mus-cat? Mocha? ¹⁰

What important country of Asia consists of islands only? What is its capital?

What goods can be obtained at Canton? Calcutta? Muscat? Mocha? Smyrna? Ispahan?

* If teachers find this too difficult for their pupils, let the boundaries be simply traced with the pointer upon a printed map.

- 1 O-kotsk'.
- 2 Kam-chat'-ka.
- 3 Si-am'.
- 4 Dek'-kun.
- 5 Com'-o-rin.
- 6 Ben-gawl'.
- 7 Per'-she-an.
- 8 Oo'-ral.
- 9 Say-vay'-ro.
- 10 Cau'-ca-sus.
- 11 For-mo'-sa.
- 12 Hi-nahn'.
- 13 Soo-mah'tra.
- 14 Jah'-va.
- 15 See'-lon.
- 16 Him-a-lay'-a.
- 17 Ahl-ti'.
- 18 Tee-ahn'-shen, Kwen'-loon.
- 19 Kin-gahn'.
- 20 Stah-no-voy'.
- 21 O'-bee, Yen-e-sa'-e, La'-nah.
- 22 By'-kahl.
- 23 Ah-moor'.
- 24 Whang'-ho'.
- 25 Yahng-tse-ke-ahng'.
- 26 Ma-kong'.
- 27 Gan'-jees.
- 28 U-fra'-tees.
- 29 Se-hoon', Je-hoon'.
- 30 Bahl-kahsh'.

- 1 Tib'-et.
- 2 Ind'-yah.
- 3 Ah-nahm'.
- 4 Toork-es-tahn'.
- 5 Ahf-gahn'-is-tahn'.
- 6 Bel-oo-chis-tahn'.
- 7 Teh-he-rah'n'.
- 8 Smer'-na.
- 9 Bag-dad'.
- 10 Mo'-kah.

ASIA

by A. Guyot

Physical and Political



NATURE OF ASIA.



TRAVELLING IN INDIA (PART OF BLACK TOWN).

I. Surface.—1. *The middle part* of Asia is a country of plateaus and high mountains. The *Himalaya Mts.* form its southern border; the *Altai* is the northern, and the *Gt. Khingan* the eastern border of this central highland.

The Himalaya Mts. are the highest on the globe.

The *Kuenlun* and *Thian Shan* are nearly as high as the *Andes*; and the *Altai*, two-thirds the height of the *Rocky Mts.*

The part of the plateau between the *Himalaya* and *Kuenlun Mts.* is called *Thibet*. It is about as high as the highest part of the *Rocky Mts.* The rest of the plateau is very much lower.

2. *West and north* of this high region is a great plain, extending to the *Caspian Sea* and the *Arctic Ocean*.

3. *East and south* of the highland are the great peninsulas. They consist of low mountains and plateaus, with broad valleys and rich, low plains.

II. Rivers and Lakes.—The longest rivers of Asia are east and north of its central highland. They flow from the high mountains which border and cross it.

The Yenisei is the longest river of Asia. Its length is nearly equal to that of the *Mississippi* or the *Nile*.

Asia has but few *fresh water lakes*. *L. Baikal* and *L. Balkhash* are the largest.

Two great *salt lakes*, or seas, lie in the western part of Asia. *Caspian Sea* is about four times the size of *L. Superior*; and *Aral Sea* is larger than *L. Michigan*.

III. Climate and Vegetation.—1. Asia, like *North America*, is very warm in the south; temperate in the middle part; and very cold in the north.

Much of the temperate and the hot parts of the continent are *too dry* to have more than a scanty vegetation.

2. *The most moist portions* of Asia are the coast countries, extending from the *Arabian Sea* to the *Sea of Okhotsk*, and from the oceans to the high mountains of the interior.

All these countries, and the islands near them, have a luxuriant vegetation. The warmest are much like *South America*

in their forests, and their cultivated plants. *China* and the *Japan Ids.* are like the southern half of the *United States*, except that groves of the *tea* shrub and of mulberry trees grow in these countries.

Manchuria is like the northern half of the *United States*.

3. *The interior* of Asia is very dry, except around the mountains; and much of it is nearly or quite a desert.

The rain and snow falling upon the mountains, cause streams which flow down their slopes and moisten the lands around them.

The mountains are covered with forests, and the *moist lands* at their foot with fields of grain and groves of fruit trees.

Thibet, because it is so high, is *too cold* to have much vegetation.

The central part of Asia is thought to be the native home of the horse, ox, donkey, and sheep, which are now scattered over all parts of the world. All, except the horse, are still found wild here in great numbers.

The camel, too, is a native of Asia. In *India* are found the tiger and elephant; and in western Asia the lion, ostrich, and other animals like those of *Africa*.



SCENE IN INDIA.

4. *The northern part* of Asia is like the *Arctic* of *North America*. It is very cold, and has but little vegetation; but abounds in fine fur-bearing animals.

COUNTRIES OF ASIA.

(Governments, see page 91, Tables VII. and VIII.)

I. Siberia. — *The cold lands* north of the Amoor river and Altai Mts., and the *dry lands* north of the Sihoon river and Aral Sea, and *Soongaria*, farther east, all belong to Russia in Europe. This great extent of country is called Siberia.

The *gold mines* in the Altai Mts. and the *fur-bearing animals* that live in the forests upon and north of them, are nearly all that make the country valuable at present.

II. Chinese Empire.—The plateau between the Altai and Himalaya Mts., and the fertile countries between it and the Pacific, form the Chinese Empire.

The fertile *coast countries* are *China*, which has a warm, moist climate; *Corea* and *Manchuria*, which are cooler, but have abundant moisture.

The *plateau countries* are *Thibet*, which is cold and barren; and *Mongolia*, which is so dry as to be almost all a desert.

III. East Turkestan occupies the fertile lands between the Thian-Shan and Kuenlun Mts.

IV. India. — The whole country south of the Himalaya Mts. belongs to England. It is called *India*. It contains the peninsula of Deccan, and the plain of the Ganges, which is one of the richest parts of the earth.

V. The Peninsula between the G. of Bengal and China Sea, called *Indo-China*, is divided into several countries. The principal ones are *Burmah*, *Siam*, and *Anam*.

VI. The western part of Asia is divided into six countries. *Turkey* in Asia extends from the north end of the Persian G. to the Black Sea and the Mediterranean.

Arabia lies between the Red Sea and the Persian Gulf.

Persia lies between the Persian Gulf and the Caspian Sea.

Turkestan lies between the Caspian Sea and the Plateau of Pamir.

Afghanistan and *Beloochistan* lie directly west of the Indus river.

All these countries but Turkey are quite dry and barren, except among the mountains and on the borders of the streams.

Arabia is a hot, desert country, like Sahara, with some fertile lands along the coast, and oases in the interior.

VII. The islands east of the Japan Sea form the *Empire of Japan*.

VIII. India, China and Japan are the richest and much the most important countries in Asia.

1. *India* furnishes large quantities of spices; rare and beautiful kinds of wood; diamonds; silks; fine muslins; and shawls more costly than those of any other country. Rice, cotton, and opium, are also exported from India.

2. *China* and *Japan* furnish nearly all the *tea* that is used in all parts of the world. From these countries are exported also, with other valuable things, many silk goods, among which are *crape shawls*, most beautifully embroidered.

3. *China* contains more people than any other country on the globe; and *India* also has a large population.

They have many cities, some of which are more populous than any others in the world except London and Paris.



JAPANESE SAILORS EATING RICE.

4. The largest cities of Asia are *Su-chau*, *Peking*, and *Canton*, all in China; *Peking* is the capital; *Canton* is the most important commercial city of Asia, and is nearly as populous as *Peking*.

Токеи (formerly *Yedo*), is the capital and largest city of Japan.

Calcutta, near the mouth of the Ganges, is the second commercial city of Asia, and is also capital of India. Its population is somewhat less than that of *Canton*.

Bombay, on the west coast of India, and *Madras*, on the east coast, also have a large commerce. Both in India and China the largest cities are on the rivers which flow through the rich plains in the interior of the country.

IX. Turkey and Persia are the most important countries of western Asia. (See *Turkey*, page 47.)

1. From both are obtained beautiful shawls and carpets. Persia also exports jewelry and perfumes. From Turkey we obtain raisins, figs, prunes, and other dried fruits; and morocco.

2. *Smyrna*, on the Mediterranean, is the principal commercial port of Asiatic Turkey.

Baghdad, on the Tigris, has a large caravan trade with the countries of central Asia. *Damascus*, near the east end of the Mediterranean, is the oldest city now existing.

3. *Ispahan* is the largest and most important city of Persia, and was once its capital. *Teheran* is now the capital.

There are two important commercial cities on the coast of Arabia. They are *Muscat* and *Mocha*. Muscat exports dates, hides, donkeys, and beautiful horses. At *Mocha* we obtain the finest coffee, together with valuable gums and spices.

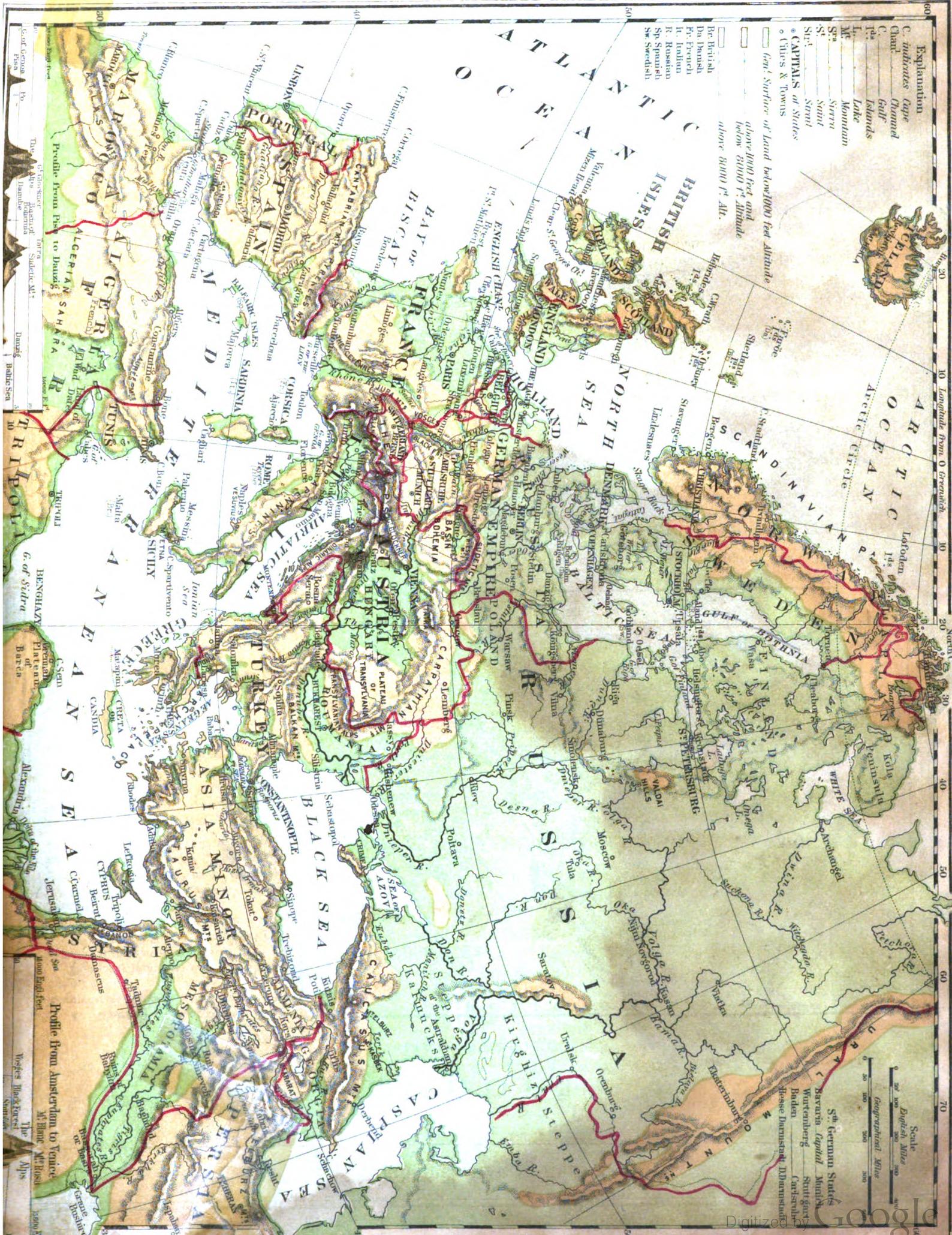
X. In the dry countries of western and middle Asia the people live as do the Arabs of Sahara. They raise great herds of cattle, horses, donkeys, sheep, and camels, with which they wander from place to place in search of pasture.

Some of these wandering tribes are very warlike, and often attack and rob the people living in the small fertile regions near which they may chance to pass.

XI. The Chinese, Japanese, and other people of eastern Asia, are different in appearance from those of any other continent. Their skin is yellowish brown; their eyes are small, black, and set obliquely; their hair is black and straight; and they are somewhat smaller than white people. They are called the *Mongolian* race, because they have spread from Mongolia over all eastern Asia.

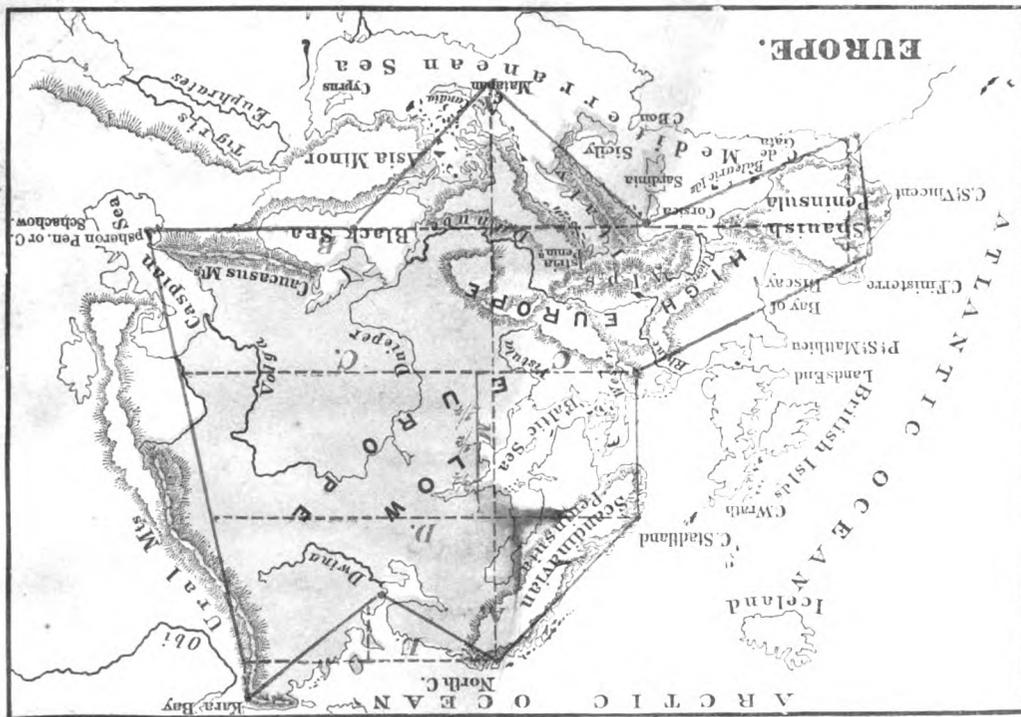
(REVIEW Asia, Exercises, page 6.)

EUROPE



EUROPE.

MAP STUDIES.



1. Form.—What continent does Europe most resemble in the form of its coast? How many peninsulas on the southern coast? How many on the western? Where is North C.? What cape? on the southern coast directly south of North C.? What cape? on the west coast of Caspian Sea? What two capes? on the Atlantic coast nearly opposite this? Where is C. Stadland? Point St. Mathieu?
- Form Drawn.—1. Construction Lines.—Draw a vertical line, A, and divide it into four equal parts, marking one part M. At each point of division draw horizontal lines, B, C, D, across A. At the top of A draw E, to the right.
2. Atlantic Coast.—At the left of A make B two and one-half M in length; C and D each one M. At the upper end of A is North C. At the end of D is C. Stadland. At the end of C is the mouth of the river Weser. One-quarter M above the end of B is a point on the Biscay coast near C. Finis-terre.
- Nearly three-quarters M below the end of B is Str. of Gibraltar.
- Connect these points and we have the general direction of the Atlantic coast.
3. Southern Coast.—At the bottom of A is C. Madag. On B, a little more than one M to the left of A, is the northwest point of the coast of Italy; and about one M to the right of A is the point of the peninsula of Crimea, in the Black Sea. Nearly one and one-half M to the right of Crimea is Apscheron Pen. Connect these points, and join the point in Italy with the Str. of Gibraltar.
4. Northern and Eastern Boundary.—Make B one and three-fourths M in length. One-fourth M above its end is Kara Bay.
- Half way between Kara B and North C, and half M below B is a point near the entrance of the White Sea. Connect these points and join Kara B. to Apscheron Pen
- CONTOUR DRAWN.—(See Map, next page.)—1. Atlantic Coast.—What bay between C. Finisterre and Pt. St. Mathieu? What sea? enters the continent midway between the mouth of the Weser and C. Stadland?
- What peninsula? between Baltic Sea and the Atlantic?
- Draw the Atlantic coast, naming each part.
- What large islands west of Europe? Opposite what part of the coast do they lie?
- How do the eastern and southern coasts of the larger of these islands compare in direction with the coast of the continent opposite them?
- Draw the British Ids.
2. Southern Coast.—What large sea separates Europe from Africa? What large sea north of the eastern part of the Mediterranean?

What long peninsula northwest of C. Matapan? How do its coasts compare in direction with the coast east of them?

What sea? east of Italy? Where is the peninsula of Crimea? Where is C. de Gata?

What mountains form the southern boundary of Europe east of Black Sea? Draw the southern boundary of Europe, naming each part.

3. Northern and Eastern Boundary.—Where is North Cape? Kara Bay? What sea between them?

What Mts. and river form part of the eastern boundary of Europe? What forms the remainder of this boundary?

Draw the northern and eastern boundaries, naming every part of each.

II. Surface.—In what part of Europe are nearly all its mountains? Where are the Alps? What mountains? northeast of the Alps?

What mountain? connect Spain to the continent? Where are the Balkan Mts.? The Apennines?

What hills? in the centre of eastern Europe? Draw the mountain ranges, stating where each is situated and in what direction it extends. Draw the Valdai Hills.

III. Rivers and Lakes.—1. In what part of Europe are the rivers the largest? Why is this the case?

What is the longest river? of Europe? Where does it rise? In what direction does the Volga flow in the first half of its course? The last half?

What is the largest tributary of the Volga? Where is the Dnieper? The Duna? The Dwina?

What river between the Volga and Dnieper?

- 1 Ad-re-at-ik.
- 2 Gah-tah.
- 3 Bahi-rah-n.
- 4 Ir-en-nos.
- 5 Vahl-dl.
- 6 Nee-per.
- 7 Dree-nah.
- 8 Vol-gah.
- 9 Kab-mah.
- 10 Car-pa-the-an.
- 11 Ap-en-nos.

- 1 Mah-tah-par.
- 2 Stah-land.
- 3 Fe-bral-ter.
- 4 Crim-e-a.
- 5 Aps-cheron.
- 6 Mat-re-n.
- 7 Baw-tik.
- 8 Pin-stair, St. Vin-cent.
- 9 Bst-gay.
- 10 Sem-din-a-re-an.

- What two large lakes¹ southwest of the White Sea?
Draw these rivers and lakes, describing the course of the rivers and the position of the lakes.
2. What river enters the Black Sea from the west? Where is its source?
 What river flows southward from the west end of the Alps?
 What river flows northward from the middle portion of the Alps?
 Which side of the Alps is the river Po?
Draw these rivers, describing the course of each.
3. What river² flows from the west end of the Carpathian Mts. into the Baltic Sea?
 What two rivers midway between the Oder and the Rhine?
 Where are the Seine³ and Loire?⁴ The Ebro and Tagus?
Draw all these streams, describing the course of each.

COUNTRIES OF EUROPE.

[To be used in connection with the text.]

RUSSIA, NORWAY, AND SWEDEN.

1. What country⁵ occupies all the eastern part of Europe? Name the seas and mountains which border it. What countries touch it on the west?
Draw the boundaries which separate Russia from these countries.
 What and where is the capital of Russia? Its principal commercial city?
 What commercial city on the White Sea? What one on the Black Sea? What one on the Caspian?
Place these cities on the map, stating where each is situated, and what articles can be obtained from each.
2. What two countries in the Scandinavian Pen.? What and where is the capital of Sweden? Of Norway? What and where is Bergen?
Draw the boundary between these countries, and place the cities in their correct position.

CENTRAL EUROPE.

1. Where is Denmark? Its principal city?
 What two small countries on the coast southwest of Denmark?
 What is the capital of Holland? Of Belgium?
 Where and what is Amsterdam?
 What country borders Belgium on the south?
 What borders both Holland and Belgium on the east?

¹ Lah-do'-gab, O-na'-gab. ² Vis'-tu-lah.
³ Sane. ⁴ Grah'-siers.
⁵ Lwah.

- Where is Germany? Of what does Germany consist?
 What two great countries¹ possess a large part of Germany?
 Where and what is Hamburg? Bremen?²
 What small country in the Alps? What countries bound Switzerland?
2. Where is Prussia? Of what empire does it form a part?
 What rivers has it?
 What and where is the capital of Prussia? Its principal commercial city?³
 What and where is Breslau?
 What great country south of Prussia? How is it bounded?
 What mountains lie within Austria? What important river crosses it?
 What and where is the capital of Austria?⁴ Its principal commercial city?⁵

SOUTHERN COUNTRIES.

- Where is Turkey situated? How is it bounded?
 What and where is its capital?
 What country south of Turkey? What is Greece?
 What and where is its capital?⁶
 Where is Italy? What waters nearly surround it? What countries border it on the north and west?
 What and where is the capital of Italy? Where is Rome? Venice? Naples?
- What two countries occupy the large peninsula west of Italy?
 What and where is the capital of Spain? Of Portugal?
 What and where is Barcelona?⁷ Oporto?⁸

FRANCE.

- What country north of the Pyrenees? What river and mountains form part of its eastern boundary? What countries touch France on the north? What countries on the east? What water separates it from England? What bounds France on the west? What bounds it on the south? Name the three principal rivers of France. What and where is its capital? Where is Lyon? Marseille?⁹ Bordeaux?¹⁰
- NOTE.**—The two French names, *Lyon* and *Marseille*, are incorrectly written *Ljons* and *Marsilles*. So also the *Golfe du lion* (Gulf of the lion), into which the Rhone river flows, is erroneously called *Gulf of Lyons*, thus falsely connecting it with a city more than 200 miles distant.

Name all the countries of Europe which touch the Atlantic Ocean?

- What and where is the capital of each?
 Name all the countries which touch the Mediterranean Sea, and give the capital of each?
 Name all which touch the Baltic Sea, giving the capital of each.
 Name the five most important countries of Europe, and state where each is situated.

NOTE.—Questions on British Isles occur on page 49.

¹ Proosh'-e-ah (oo as in cook), Aus'-tre-ah. ² Brem'-en. ³ Dent'-zig.
⁴ Ve-en'-nah. ⁵ Trec'-est'. ⁶ Aih'-ens. ⁷ Zar-sa-lo'-nah.
⁸ O-pore'-to. ⁹ Mar-saie'.
¹⁰ Bor'-do'.

NATURE OF EUROPE.

I. Surface.—The eastern part of Europe consists of a great plain, which extends from the Black Sea to the Arctic Ocean, and from the Ural Mountains to the North Sea.

This plain is low and very level. The highest part, called the Valdai Hills, is just in the centre of eastern Europe.

The western part of Europe is mountainous. The Alps are the highest mountains of Europe. Their tops are covered with snow, and great fields of ice called *glaciers*⁶ fill the highest valleys.

The Pyrenees, Alps, and Balkan Mountains form the centre of a chain of highlands extending from the Atlantic Ocean to the Black Sea.

From this centre lower ranges and plateaus extend southward, forming the three great peninsulas. North of the Alps is a country of mountains and valleys, sloping gradually to the low plains along the North and Baltic Seas.

II. Rivers and Lakes.—The largest rivers of Europe are in the eastern plain. They flow from the central part to the seas which lie on its borders. The *Volga*, which rises in the Valdai Hills, is the longest river of Europe.

The largest rivers of western Europe flow from the Alps and the plateaus near them; the *Danube*, to the Black Sea; the *Rhine*, to the North Sea; and the *Rhone*, to the Mediterranean.

The largest lakes lie in the low plains around the Baltic Sea. Many small, deep lakes, lie among the Alps, and are noted for their great beauty.

III. Climate, Vegetation, and Animals.—

1. *Climate.*—Europe has a temperate climate. In the southern

peninsulas the summer is long and warm, and there is very little winter.

The *Arctic coasts* are very cold, much like British America and Siberia.

Western Europe receives warm southwest winds from the Atlantic Ocean, and is much warmer and more moist than eastern Europe.

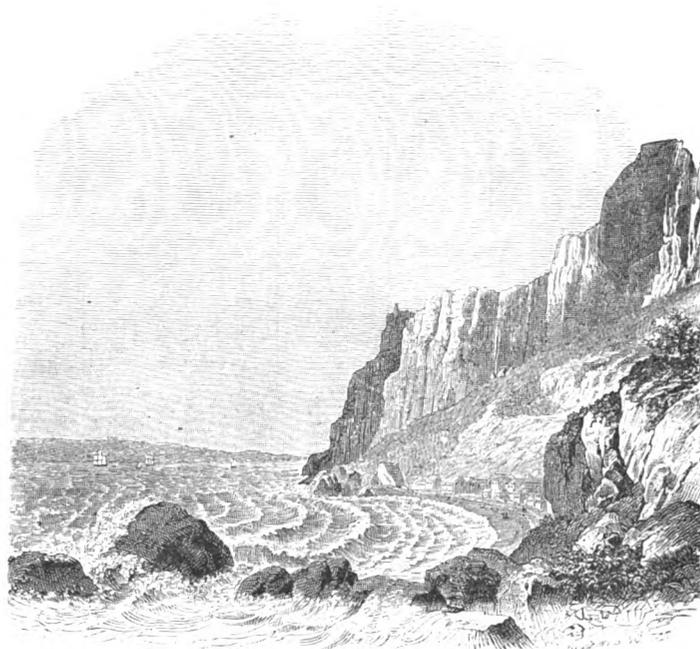
2. *Vegetation.*—The forest trees and cultivated plants of Europe are much like those of North America.

A large part of the plains of eastern Europe are covered with forests. Fine forests of pine, fir, and other evergreens, are also found in the Scandinavian peninsula. The *cork oak* grows in large quantities in the Spanish peninsula.

In *southern Europe* grapes of fine quality are raised in large quantities. Olives, oranges, figs, and other fruits of temperate and warm countries are cultivated in the peninsulas. Tobacco, and the mulberry, the leaves of which are the food of the silk worm, also grow in abundance.

In *middle and northern Europe* the different kinds of grain, and flax, are most cultivated.

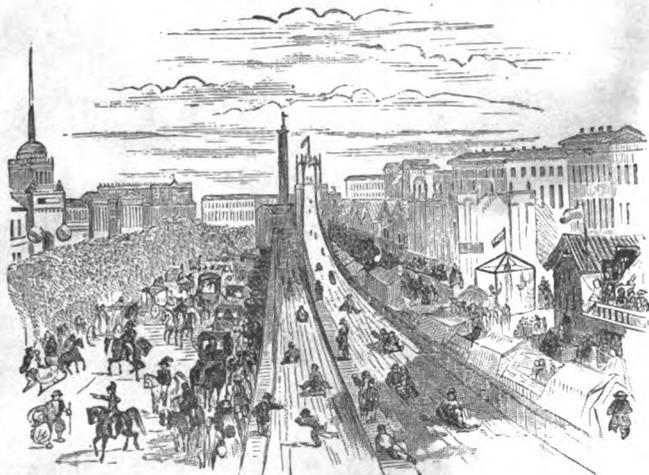
3. *Animals* valuable for their fine furs abound in the cold parts of Europe. Great numbers of wolves are found in the forests of the eastern plains, together with deer of different kinds, the brown bear, the wild boar, and many other animals.



STRAIT OF GIBRALTAR.

COUNTRIES OF EUROPE.

(For Governments, See Tables V. and VI., page 91.)



WINTER SPORT AT ST. PETERSBURG.

I. Russia.—1. The great plain of eastern Europe forms one country called *Russia*. It extends from the Arctic Ocean to the Black Sea, and from the Ural Mts. to the Baltic Sea.

2. From the head of the White Sea, southward to the Valdai Hills, are the great forests of eastern Europe with their multitudes of wild animals. In Middle and Southern Russia are fine grain and flax lands; and pastures on which are raised great numbers of horses and cattle.

3. *The cities* are nearly all in the middle and southern parts

of the country. *St. Petersburg*, situated on an arm of the Baltic Sea, is the capital and largest city.

Riga,¹ southwest of St. Petersburg, is the most important seaport. It exports lumber, flax, and grain, from the interior.

Odessa,² on the Black Sea, is the principal market of wheat, leather, and tallow, from the southern part of the country.

Astrakhan,³ on the Caspian, is the principal centre of trade with western Asia.

Archangel,⁴ on the White Sea, is an important market for fish, lumber, and furs.

Moscow,⁵ in the interior, is the greatest manufacturing city of Russia. It was formerly the capital.

II. Norway and Sweden.—The Scandinavian peninsula is divided into two countries, Norway and Sweden.

These countries are famous for their fine lumber, their fisheries, and their mines. The iron mines of Sweden are noted for the great quantity and fine quality of iron they produce.

Stockholm, on the Baltic Sea, is the capital and most important commercial city of Sweden.

Christiania is the capital of Norway and its largest city; *Bergen*,⁶ on the Atlantic coast, is a great fish market.

III. Denmark, Holland, and Belgium, are small countries bordering the North Sea.

DENMARK consists of the islands and the northern half of

¹ Ree'-gah.

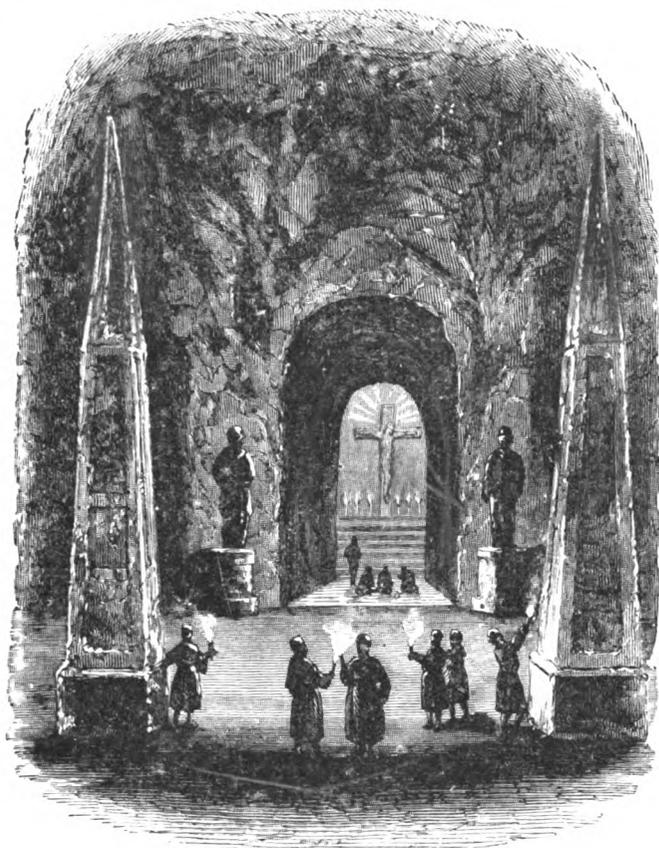
² O-des'-sah.

³ Ahs-trab-kahn'.

⁴ Ark-ain'-jel.

⁵ Mos'-ko.

⁶ Ber'-ghen.



A CHAPEL IN A SALT MINE (AUSTRIA).

the peninsula lying southwest of Sweden. Its capital and largest town is *Copenhagen*, on *Seeland*, the largest of the islands.

HOLLAND consists of the low, moist plains, at the mouth of the Rhine. *The Hague* is its capital, and *Amsterdam* its largest city.

Both these countries are noted for their fisheries, and Holland for its commerce. Amsterdam is one of the leading commercial cities of Europe. It carries on a large commerce with the East Indian Islands, many of which belong to Holland.

BELGIUM consists of the plains and highlands directly south of Holland. *Brussels*, its capital and largest city, is one of the handsomest towns of Europe.

Belgium is noted for its manufactures, particularly of carpets, laces, and firearms.

IV. Switzerland is a small country, consisting of the high northwestern part of the Alps. Its capital is *Berne*. *Geneva*, the largest city of Switzerland, situated on Lake Geneva, is noted for its manufacture of watches.

Switzerland is celebrated for the beauty of its mountains and lakes, and is, each summer, visited by great numbers of travellers.

V. The German Empire.—Prussia, and three smaller kingdoms—Saxony, Bavaria, and Wurtemberg,—with a large number of other small states (see p. 91, Table V.), form the German Empire.

It includes all of the plain south of the Baltic, and the highlands of the Rhine and the upper Danube basins.

Berlin is the capital and largest city of the Empire.

Hamburg, near the mouth of the Elbe, is the largest city of

Germany except Berlin, and one of the most important commercial towns of Europe. *Bremen*, on the Weser, is also an important commercial city. Hamburg and Bremen are the places from which German emigrants sail for America.

Germany contains many noted cities, which are visited by travellers from all parts of Europe and America. Among these are *Munich*, famous for the beauty of its public buildings; and *Dresden*, celebrated for its fine collection of paintings.

VI. Prussia.—The plains south of the Baltic, and the highlands of the lower Rhine, form the *Kingdom of Prussia*.

The plains produce grain, tobacco, and flax; in the valley of the Rhine grapes are cultivated and fine wines made. Wool is produced in large quantities in all parts of Prussia.

The highlands contain rich mines of coal, iron, zinc, and other metals.

Berlin is the capital of Prussia as well as of the Empire.

Breslau, on the Oder, the second city of Prussia, is the greatest wool market of Europe.

Danzig, on the Baltic, is an important seaport, and is one of the greatest grain markets of Europe.

VII. The Austrian empire comprises the larger part of the basin of the Danube. It includes the kingdom of Hungary, which occupies the plains in the centre of the Empire.

Austria produces large quantities of grain and flax; and grapes for wine are more cultivated than in any other country except France.

The mountains contain rich mines of iron and other metals; and the mines of rock-salt, near the source of the Vistula, are the most remarkable in the world.

Vienna, on the Danube, is the capital of the Austrian Empire, and the largest city in central Europe.

Trieste, at the head of the Adriatic Sea, is the principal seaport of Austria. *Pesth* is the capital of Hungary.

VIII. Turkey and Greece.—TURKEY lies in the large peninsula between the Black and Adriatic Seas.

Turkey in Europe, Turkey in Asia, and a part of Northern Africa form the *Turkish* or *Ottoman Empire*. *Constantinople*, the capital of the empire and the principal commercial city, is situated on the channel between the Black Sea and Sea of Marmara.

GREECE is the small peninsula lying west of the *Ægean* Sea. This country is noted for the great men, and beautiful works of art it produced in ancient times.

Athens is the capital and largest town of Greece. Athens is older than Rome, and was the most famous and beautiful city of ancient Greece.

IX. Italy.—The Italian peninsula and the islands of Sicily and Sardinia, form the *Kingdom of Italy*.

Italy contains many celebrated cities, some of which are very old.

Rome, the most noted city of Europe, is situated on the *Tiber*, or *Tevere* river. At the birth of our Saviour Rome ruled almost the whole known world. It is now the capital of the kingdom of Italy.

This city contains the ruins of many ancient buildings, fine collections of an-

cient paintings and sculptures, with many other objects of interest. It is visited by great numbers of travellers from all parts of Europe and America.

Venice, another famous city, is situated on a cluster of small islands near the head of the Adriatic Sea. Venice was once the leading commercial city of the world.

Florence, the former capital of Italy, is situated in the northern part of the peninsula, and noted for its great collection of paintings and sculptures.

Naples, situated on the western coast, is the largest city of Italy, and is an important commercial town.

X. Spain and Portugal.—The peninsula south of the Bay of Biscay is divided into two countries, Spain and Portugal.

SPAIN occupies much the larger part of the peninsula.

The interior is a plateau, and somewhat dry and barren, but it affords pasture for large numbers of horses, and merino sheep which are noted for their fine wool.

Madrid, the capital and largest city, is situated in the dry plateau of the interior.

Barcelona, on the northeast coast, is next to Madrid in size, and the most important commercial city.

Gibraltar, a strong fortress on the strait of that name, belongs to England.

PORTUGAL lies along the western coast of the peninsula.

Portugal consists of valleys and mountain ranges, and has a more fertile soil than Spain.

Lisbon, at the mouth of the Tagus river, is the capital and largest city of Portugal.

Oporto, at the mouth of the Duero, is second in size. This city exports large quantities of *port-wine*.

XI. France.—This country extends from the Alps to the Bay of Biscay, and from the Mediterranean to the English channel. It contains some of the most fertile valleys and plains of western Europe.

The mountain lands are rich in mines of iron, coal, lead, and copper. The warm plains of the south produce large quantities of fine grapes and wine; with olives and other fruits, and the mulberry. The northern plains yield grain, flax, and fine pasture.

France is one of the greatest manufacturing and commercial countries of the globe. Manufactures of every kind are exported in large quantities.

Silk, cotton, and woollen goods; wine, brandy, and olive oil; gloves, jewelry, and artificial flowers; are among the leading exports.

Paris, the capital, is situated in the northern part of



France, on the river Seine. It is the largest city on the continent of Europe, and one of the largest in the whole world.

Rich and beautiful manufactures, and all sorts of fancy articles, are produced in Paris in immense quantities.

Lyon, on the Rhône, at the mouth of the Saône, is the great centre of silk manufactures.

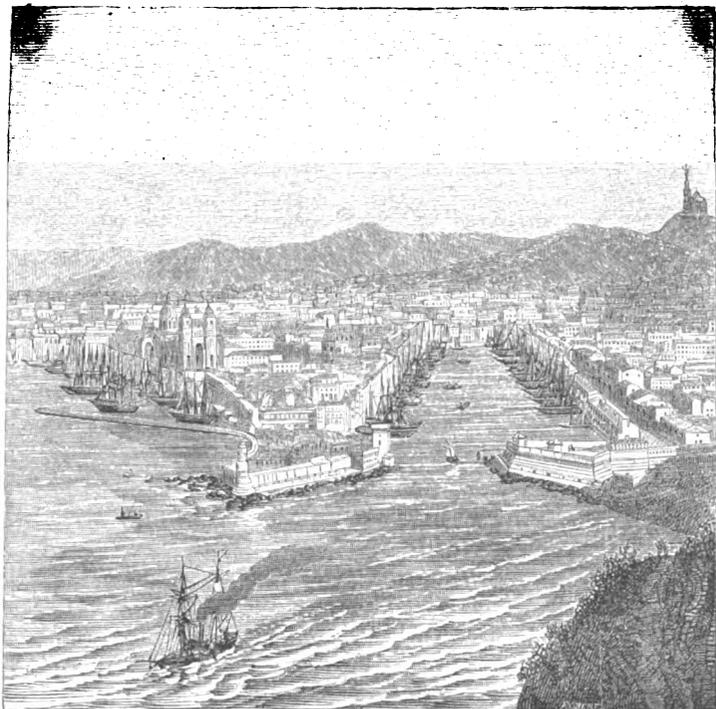
Marseille, near the mouth of the Rhône, is the most important coast city of France. It is the market from which are shipped the silks of the Rhône valley.

Bordeaux, on the Garonne, is an important market for wine, brandy, and fruits.

XII. The British Isles, consist of Great Britain, Ireland, and the small islands surrounding them.

These islands, with British America, India, Australia, and smaller possessions in many other countries, form the *British Empire*.

Great Britain is divided into: *England*, on the south; *Scotland*, on the north; and *Wales*, which is a mountain region on the west coast of England. These countries, to-



MARSEILLE.

gether with Ireland, form the *United Kingdom of Great Britain and Ireland*.

ENGLAND consists of fertile plains; highlands affording excellent pastures; and mountains rich in minerals. Its rivers afford fine water power, and its coast has many excellent harbors.

1. *The plains produce large quantities of wheat; and great numbers of the finest horses, cattle, sheep, and swine, are raised on the pasture lands.*

The mines in the middle and northern part of England furnish nearly half the coal and iron produced on the globe, and great quantities of lead. Tin and copper are very abundant in the peninsula of Cornwall south of Wales.

2. *Manufacturing and commerce are more extensive in England than in any other country.*

Cotton and woollen goods, and articles made from iron and steel, are the most abundant manufactures. These and the minerals of the country are the principal exports.

Cotton and wool for manufacturing, and articles of food,—as wheat and corn, beef and pork, sugar, tea, and coffee,—are the principal imports. A large portion of these things come from the United States.

3. *Many great cities are found in England. London, its capital, situated near the mouth of the Thames river, is the largest city* of the globe, and is much the greatest commercial centre. Its commerce by sea is nearly equal to the whole foreign commerce of the United States. London is also largely engaged in manufacturing.*

Manchester, situated near rich coal mines, is the first city on the globe in cotton manufactures. Birmingham, manufacturing hardware; Sheffield, noted for its cutlery; and Leeds,

* London contains over three millions of people, and Paris nearly two millions. Su-chau, which is nearest them in population, is supposed to contain about two millions, but its exact population is not known.

for its woollen manufactures, are all in the same region of coal and iron mines.

Liverpool, on the coast west of Manchester, is the market of this region, and is therefore a very important commercial city.

SCOTLAND is a rough country, with high mountains in the northern part. The lower lands of the south are cultivated; and oats and potatoes are raised in large quantities. The high lands afford fine pasture, and most of the people there are shepherds.

Glasgow, on the Clyde river, is the largest city of Scotland. It has extensive cotton manufactures and iron works, and is an important commercial city.

Edinburgh, the capital, is situated on a bay of the North Sea. It is considerably smaller than Glasgow.

IRELAND is a somewhat level country, with a fertile soil and a mild, moist climate. Its vegetation is so fresh and beautiful that it is often called the *Emerald Isle*.

The cultivated lands produce grain, flax, and potatoes.

Cattle, sheep, and hogs, are raised in great numbers.

Dublin, the capital, is situated on the eastern coast. It is the largest city and most important commercial port of Ireland.

Belfast, on the coast north of Dublin, is second in size. It manufactures large quantities of linen goods.

XLIII. Great Powers.—England, France, Prussia, Austria, and Russia, are the most important countries of Europe. They are usually called the *Five Great Powers* (For Governments, see page 91.)

QUESTIONS.—What body of water east of the British Isles?

What strait and channel south of them?

What sea and channel separates Ireland from England?

What is the largest country of the British Isles?

• What country north of England?

Where is Wales?

What is the direction of Ireland from England?

What is the southwestern point of England?

What is the most northern point of Scotland?

Where is Cape Clear? Malin Head?

Where are the Hebrides? The Orkneys?

What islands northeast of the Orkneys?

Where are the Channel Islands?

Where are the Isle of Man, and Anglesey?

What small islands west of Lands End?

Where is Valencia Island? The Isle of Wight?

Where is Bristol Channel? Moray Firth? Solway F.?

Where is Galway Bay? Donegal B.? The Wash?

What is the surface of the larger part of Scotland?

What part of England is mountainous?

Where are lowlands of England?

What is the surface of the interior of Ireland?

What are the principal mountains of Scotland?

What hills form part of the boundary between England and Scotland?

What mountains in Wales?

Where is the Pennine Chain?

Name and describe the course of the three principal rivers of England.

What are the two principal streams of Scotland?

Where is the Shannon river?

What and where is London? Liverpool? Edinburgh? Glasgow? Dublin? Belfast?

Which are the four great manufacturing cities of England?

Where is each situated?

¹ Mal-in.

² Heb-ri-des.

³ Gram-pi-an.



General Surface of Land below 500 feet Altitude above 500 feet Altitude

The elevations in the profile are increased 50 times

15000 Engl. Feet
 10
 5
 Pacific Ocean

Sierra Nevada
 Castle Peak
 Pyramid Peak
 Monte Diablo
 S. Francisco
 Sacramento

Great Basin
 Humboldt M^s
 East Humboldt M^s
 Pyramid I.
 G. Salt Lake City

Wahatch M^s
 Grand M^s
 Green R.
 Wash.
 Deaver

Rocky M^s
 Longs Peak
 Pike Peak
 The Great Western
 Republican R.

PROF. P.

THE UNITED STATES.

MAP STUDIES.

I. Position and Contour.—In what part of North America (see Map, page 26) are the United States?

How far do they extend east and west?

How far north and south?

Name the peninsulas of the Atlantic coast.

Name its capes, commencing at the most northern.

Name, in the same order, its bays and sounds.

Name the capes of the Pacific coast.

Where is Long Island?

Where are the Bahama Ids.?

II. Surface.—What part of the Pacific highland is included in the United States?

What part of the Atlantic highlands?

How do the eastern and the western half of the country compare in height? (See profile, "From San Francisco to Washington.")

Where are the Rocky Mts.?

Where are the Wahsatch Mts.?

How do the Mississippi river and the Rocky Mts. divide the entire breadth of the country?

What mountain ranges on the western border of the Pacific highland?

What kind of land west of the mountains?

Where are the Great Western Plains?

How do they compare in height with the plains around the Mississippi (see profile)?

How do they compare in height with the Appalachian Mts.?

In what part of the Appalachian mountain system is the Blue Ridge?

Where is the Alleghany range?

Where are the Cumberland Mts.?

Where are the Green Mts.?

Where are the Adirondack Mts.?

III. Rivers and Lakes.—What system of rivers wholly within the United States?

Describe the course of the Mississippi.

What three large tributaries has it from the west?

What large tributary from the east?

Describe the course of each.

What advantage to the country are these great streams?

What two large tributaries has the Missouri?

What one has the Arkansas?

What two large streams flow into the Ohio from the south?

What is the largest one from the north.?

Describe the course of the Colorado west of the Rocky Mts.

Describe the course of the Columbia.

Describe the course of the Rio Grande del Norte.

What system of waters forms part of the northern boundary of the United States?

What lake of this system is wholly in the United States?

What part of the others is in this country?

Name the principal Atlantic rivers which are in the United States.

Some of these are navigable but a little way from the mouth; of what use are they to the country around them?

What river flows through a low valley across the Appalachian mountain system?

What river enters Long Id. Sound?

What river enters Penobscot Bay?

Name the river which enters Delaware Bay.

What three streams enter Chesapeake Bay?

Into what water does Roanoke R. flow?

What river enters Pamlico Sd?

Where is C. Fear river?

What two streams nearly parallel to C. Fear river?

Where is Ocmulgee river?

What two streams unite and enter Mobile B.?

Where is Chattahoochee river?

Divisions of the Country.—Of how many States and Territories do the United States consist? (See Text, page 55.)

Where do the States lie?

Where the Territories?

Where is the District of Columbia?

States.—Point to and name each of the North Atlantic States.

Each of the Middle Atlantic States.

Each of the South Atlantic States.

Each of the Gulf States.

Point to and name each of the Central States.

Each of the Pacific States.

Which of the North Atlantic States has no sea-coast?

Which of the Middle Atlantic States have none?

Find a water-route from each of these States to the sea.

Which Pacific State has no sea-coast?

Has it any water-route to the sea?

What States touch the Gt. Lakes?

What States touch the Ohio?

What States lie along the east bank of the Mississippi?

The west bank?

What States are touched or crossed by the Missouri?

What States north of the Potomac?

What States between the Ohio, the Mississippi, and the Gt. Lakes?

What States wholly north of the Missouri?

Which of the Central States lie south of the Ohio and Missouri?

Territories.—Point to and name each of the Territories.

Where do all lie?

Which Territories are crossed by the Rocky Mts.?

Which wholly east of the mountains?

Which wholly west?

Which touches the Pacific?

Which of all the Territories is most fortunate in its position?

Why?

Atlantic Cities.—What and where is the capital of the United States?

On what coast is New York?

Midway between what two capes is it?

On what river, and at what part of the river?

State in a connected description all you have learned about the situation of New York.

What two great cities between New York and Washington?

Where is Brooklyn?

In what State is each of these cities?

Why should cities have grown up there?

Where is Boston?

Where is Providence?

In what business are these cities engaged?

What city on Mobile Bay?

Where is Charleston?

What is the business of these cities? (See Text, page 57.)

What can you say of the size of these cities?

Why should they have grown up at these points?

Which of the Atlantic cities can most easily reach the great lakes? Why?
 What can you say of the size of this city? (See text, page 56.)

Mississippi Cities.—Where is New Orleans?

What city in the central plain can most easily send goods to New Orleans?
 Why?

Describe the situation of St. Louis.

Of Cincinnati.

Of Louisville.

Of Memphis.

How can St. Louis send goods to the northern borders of our country?

How send to the Rocky Mt. region?

How send to the Appalachian region?

What can it obtain from each of these parts of the country?

Where can it sell these productions?

To what parts of the country can Cincinnati send goods by water?

Which is best situated for trading with the western and southern part of the country—Cincinnati or St. Louis?

Why?

Which can best trade with the eastern and northeastern part?

Why?

To which of the Atlantic cities is Cincinnati the nearest?

What city on the Ohio in Pennsylvania?

Lake Cities.—What large city near the head of L. Michigan?

Describe the route by which a boat-load of grain would go from Chicago to New York.

Where is Milwaukee?

What and where is the principal lake city of Michigan?

What and where is Cleveland?

Where is Buffalo?

Where is Oswego?

Why have cities grown up at these two points?

Which of the two do you think has the best position? Why?

Which city of the Gt. Lakes is best situated for trade with Cincinnati?

Which one for trade with St. Louis?

What large city on the *Pacific coast*?

Where is it situated?

What means has it of reaching the country at the foot of the Sierra Nevada Mts.?

Why should its people wish to go there?

What city near the Wahsatch Mts.?

Where is it situated?

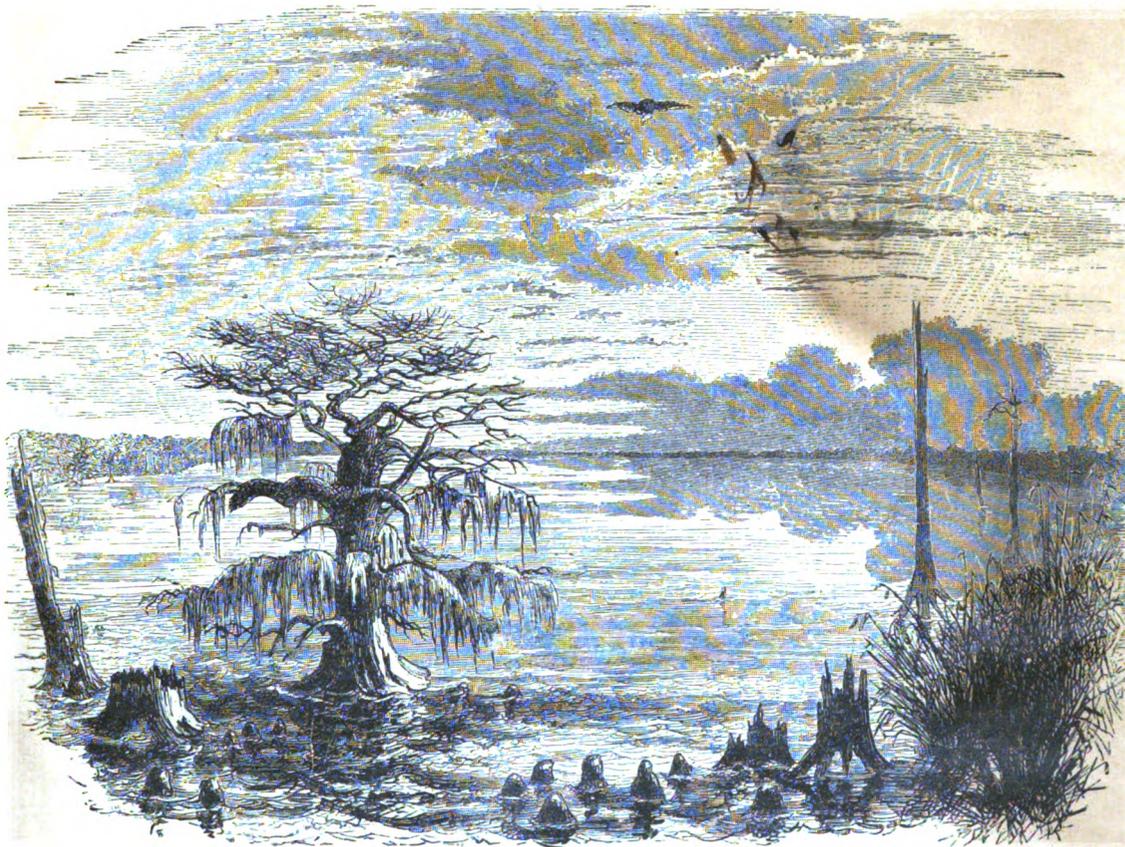
Why are there so few cities in the far-western part of our country?

In what part of our country do you find the most cities?

What reason can you give for this?

(NOTE. — If teachers wish the United States drawn, see page 94.)

NATURE OF THE COUNTRY.



DRUMMOND LAKE IN DISMAL SWAMP, VIRGINIA.

I. Position.—THE UNITED STATES lie in the central part of North America. They extend from the Great Lakes and but little broken by the sea. Its bays, sheltered by surrounding high lands, form large and most excellent harbors.

to the Gulf of Mexico, and from the Atlantic Ocean to the Pacific.

II. Coast.—1.
ATLANTIC COAST.—*The northern part* of this coast is generally elevated and rocky, and has many fine harbors. From the Hudson southward the coast lands are low and sandy, or marshy, and there are fewer good harbors. The best are at the mouths of the larger rivers.

At the mouth of the Hudson is one of the finest harbors in the world. It is large and deep; has a narrow entrance from the sea; and is surrounded by high lands which break the force of the winds and shut out the waves of the sea.

Along the low coast, banks of sand but little below the surface of the water, lie across the entrance to many harbors which might otherwise be fine. This prevents large, heavy-laden vessels, which sink deep in the water, from entering the harbor.

2. THE PACIFIC COAST is high and mountainous, its bays, sheltered by surrounding high lands, form large and most excellent harbors.

III. This country includes nearly the whole Appalachian Mountain system and the Atlantic plain; the southern slope of the central plain; and the broadest portion of the Pacific highland, with the highest mountain ranges.

It has the entire Mississippi system of rivers, a large part of the St. Lawrence system; nearly all the Atlantic, and the larger Pacific rivers.

These streams furnish every part of the country excellent advantages for domestic commerce. The great length of coast, and the fine harbors, afford opportunities for foreign commerce.

CLIMATE.

I. TEMPERATURE.—The United States have a temperate climate. There is very little winter in the South. The northern part has somewhat long, cold winters, but quite hot summers.

II. MOISTURE.—A line drawn from the head of *Lake Winipeg* to the mouth of the Rio Grande divides the *high western half* of the country from the *low eastern half*.

The *low east* receives moist winds from the Atlantic and G. of Mexico. It therefore has an abundance of rain at all times in the year.

The *high western region* receives moisture mainly from the Pacific; for the Gulf winds rarely turn westward, and the Atlantic winds are comparatively dry before they reach it.

The *high and cold mountains* that border the plateau on the west, prevent this moisture from being spread over the whole country, as in the east; and most of it falls on the western side of the Sierra Nevada and Cascade Ranges.

The *Pacific highland*, therefore, has little rain, except on its mountains. The *high plains* east of the Rocky Mts. also have but little rain, because these mountains take away from the west wind the moisture which it brings across the Sierra Nevada.

VEGETATION AND ANIMALS.

I. THE MOIST EAST.—This part of the country has everywhere a rich vegetation of forests, grasses, or cultivated plants.

When the country was first discovered, dense forests extended from the Gulf of St. Lawrence to the Gulf of Mexico, and from the Atlantic ocean nearly to the Mississippi river.

These forests were of pine, oak, maple, chestnut, beech, and other trees, such as are still to be found in our fields and woods.

Around and west of the Mississippi are rich *prairies*, covered with tall grass and flowers. These fertile prairies extend westward about half-way to the Rocky Mts., as far as the country is well supplied with moisture.

The *forests* of the east have been largely cut down, except in the Appalachian mountain country. All the most useful cultivated plants now grow in great abundance, both in the forest region and in the prairie country.

The *larger wild animals* are not found in this half of our country, except in the mountain forests. There are deer, wolves, black bears, wild-cats, and great numbers of rattlesnakes. Alligators are numerous in the warm, marshy lands along the southern coasts and rivers.

II. THE DRY WESTERN LANDS.—*Vegetation* is very scanty in all parts of the Pacific highland.

1. The *high plains* east of the Rocky Mts. are almost destitute of trees, and have but a thin growth of grass. They are so barren as often to be called the *American Desert*.

Great herds of buffaloes, or bisons, roam these high plains, feeding on the scanty growth of vegetation. Wolves, and a curious little animal, called the *prairie dog*, are also very numerous; and antelopes are found, especially in the South.

2. The *Rocky Mts.* and Sierra Nevada have *fine forests* on their lower slopes. Higher up the trees become smaller and more scattering; until finally only *stunted shrubs* are left, amid broad patches of *grass*, and beautiful *mountain flowers*.

Beyond these are *mosses* and *lichens*, such as grow on the Arctic coasts; and then *bare rock*. On the very high peaks are *snow* and *ice* throughout the year.

Thus, while going from the base to the summit of high mountains, we see the same changes in climate and vegetation which we should see were we to go from the base of the same mountain to the frozen regions around the pole.

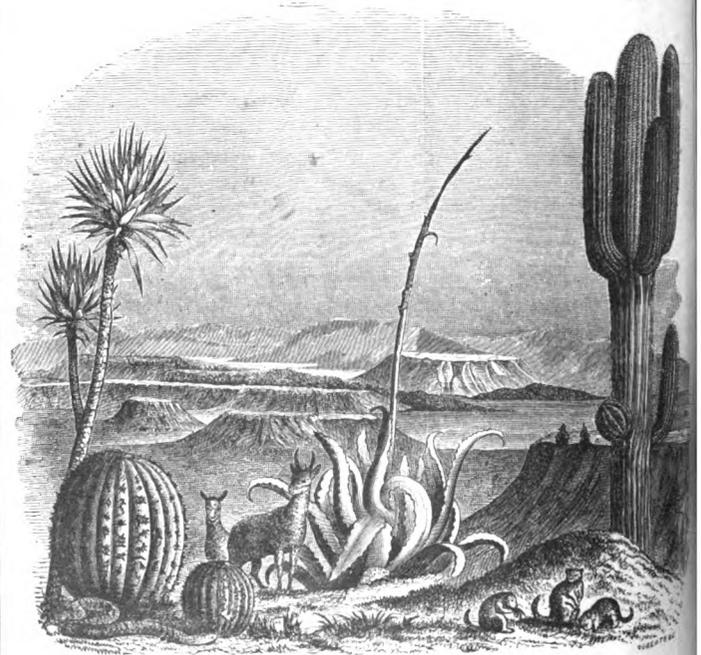
In the *mountain forests* are many animals. Among them, on the *Sierra Nevada*, are the *panther* and *grizzly bear*, the most fierce and dangerous animals of North America.

3. The *broad plateau* between the mountains is almost a desert, except near the mountain ranges which cross it here and there.

These mountains receive some rain; and the streams flowing down from them moisten the country at their base, so that it can be cultivated.

Elsewhere you will see growing only small gray, dusty-looking plants, called *sages*.

In the *southern part* of the country, on each side of the Rocky Mts., the *cactus* grows in great abundance; also the *yucca*, and the *agave*, often called *century plant*.



Yucca. Cactus. Antelopes. Century Plant. Prairie Dog. Rattlesnake. Cactus.

SCENE ON THE RED RIVER.

Some kinds of the cactus grow to an enormous size, and they all have singular forms.

These plants, with the strange forms into which the plateau surface is often broken, give the country here a very remarkable appearance. The picture above represents the country near the source of the Red river.

4. *West of the Sierra Nevada* is a most luxuriant vegetation. There are in California groves of the largest trees known.

The *pine* and *cypress* forests of this part of our country are noted for the great size and beauty of their trees.

Cultivated plants like those of the east grow abundantly, and fruits of all kinds are much larger here than they grow at the east.

QUESTIONS.—Why should there be so little vegetation in this half of our country? Why should the mountains have more than the rest of the region? Why should the vegetation decrease constantly as we ascend the mountains? Why should the Pacific coast regions have so luxuriant a vegetation?

DIVISIONS OF THE COUNTRY.

(Government, see page 89, III.)

I. The United States consist of thirty-seven States, ten organized Territories, and a district known as the *Indian Territory*, reserved to certain Indian tribes, under the government of their chiefs.

The former *District of Columbia*, situated on the east side of the Potomac river, around the capital of the United States, was made a Territory in February, 1871.

Alaska, formerly *Russian America*, belongs to the United States.

II. Position of States.—The States, except six, lie wholly in the moist, fertile, eastern half of the continent.

Nebraska, *Kansas*, and *Texas*, lie partly in the high, barren plains east of the Rocky Mts. *Nevada* lies wholly in the plateau between the Rocky Mts. and the Sierra Nevada.

California and *Oregon* are partly in the plateau, and partly in the fertile coast region of the Pacific.

III. Groups of States.—The States of the Union may be divided, according to their position, into six groups.

I. NORTH ATLANTIC STATES, usually called *New England* (lying east of the Hudson).

- | | |
|-------------------|-------------------|
| 1. Maine. | 4. Massachusetts. |
| 2. New Hampshire. | 5. Rhode Island. |
| 3. Vermont. | 6. Connecticut. |

II. MIDDLE ATLANTIC STATES.

- | | |
|------------------|-------------------|
| 1. New York. | 4. Delaware. |
| 2. New Jersey. | 5. Maryland. |
| 3. Pennsylvania. | 6. Virginia. |
| | 7. West Virginia. |

III. SOUTH ATLANTIC STATES.

- | | |
|--------------------|-------------|
| 1. North Carolina. | 3. Georgia. |
| 2. South Carolina. | 4. Florida. |

IV. GULF STATES.

- | | |
|-----------------|---------------|
| 1. Alabama. | 3. Louisiana. |
| 2. Mississippi. | 4. Texas. |

V. CENTRAL STATES.

- | | |
|---------------|---------------|
| 1. Tennessee. | 7. Wisconsin. |
| 2. Kentucky. | 8. Minnesota. |
| 3. Ohio. | 9. Iowa. |
| 4. Indiana. | 10. Missouri. |
| 5. Illinois. | 11. Arkansas. |
| 6. Michigan. | 12. Kansas. |

13. Nebraska.

VI. PACIFIC STATES.

- | | |
|------------|----------------|
| 1. Oregon. | 2. California. |
| | 3. Nevada. |

IV. Position of Territories.—The Territories, except *Columbia*, are all in the high western region, around and beyond the Rocky Mountains. Their names are

- | | |
|----------------|--|
| 1. Washington. | 6. Utah. |
| 2. Idaho. | 7. Colorado. <i>Colorado</i> will soon become a state. |
| 3. Montana. | 8. Arizona. |
| 4. Dakota. | 9. New Mexico. |
| 5. Wyoming. | 10. Columbia. |
| | 11. The Indian Territory. |

OCCUPATIONS AND PRODUCTIONS.

I. Agriculture and *grazing* are the two leading occupations of the people of the United States.

They are carried on in the entire eastern half of the country; and in the fertile regions along the Pacific coast.

Among the Appalachian mountains agriculture is not extensive, except in the broad fertile valleys of the Middle Atlantic States.

In New England grazing is more important than agriculture.

II. The leading products of agriculture are corn, wheat, and other grains; cotton, tobacco, and rice.

Rice is confined almost entirely to the marshy coast lands of the South Atlantic and Gulf States. According to the

census of 1870, *South Carolina* produces most; *Georgia* second; *Louisiana* third; and *North Carolina* fourth. The others produce little in comparison with these.

Cotton is raised in the interior of the South Atlantic and Gulf States; on the islands of some parts of the coast; and also in Tennessee, Kentucky, and Arkansas. *Mississippi* produces most; *Georgia* second; then *Alabama* and *Louisiana*.

Tobacco is raised somewhat in nearly all the States; but most extensively in the southern portion of the Middle Atlantic and Central States. *Kentucky* produces most; *Virginia* second; then *Tennessee*, *Ohio*, *Maryland*, and *Missouri*.

Wheat and corn are raised largely in every State of the Union, but very much more corn than wheat is produced.

The *great grain field* of the country, however, is the Central States. Illinois is first in the production of both wheat and corn. Next are Iowa, Ohio, Missouri, and Indiana.

The States north and west of these are not yet entirely settled; and therefore produce much less than they might otherwise do.

III. The grazing products of importance are butter and cheese of the best quality, mainly from the Middle and North Atlantic States; and immense quantities of live stock, wool, beef, and pork, in the Central States.

IV. Mining is becoming a very important part of the business of the country.

The *minerals* most abundantly produced are *coal* and *iron*, mainly from the Appalachian Mts.; *copper*, from the shores of Lake Superior; *lead* from the region of the Upper Mississippi; *gold* and *silver* from the Rocky, Sierra Nevada, and Cascade Mts.

The *silver* is mainly from *Nevada*; the *gold* from *California*.

Northern Illinois, southern Wisconsin, eastern Iowa and Missouri, produce the *lead*, and Michigan the *copper*.

V. Manufacturing is extensive in all the Appalachian region north of the Potomac and Ohio rivers.

The States which manufacture most goods are *Massachusetts*, *New York*, *Pennsylvania*, and *Ohio*.

Manufacturing is rapidly increasing in all the Central States, and in California. At present Illinois and California manufacture more than any other States west of the Appalachian Mts. except Ohio.

The principal manufactures are flour and meal; cotton and woollen goods; agricultural and mining tools, and machinery.

VI. Commerce is very extensive, both foreign and domestic.

The foreign commerce is mainly with Europe. It is carried on principally by the Middle and North Atlantic States, because they have the best harbors.

The domestic commerce is between the same States, which are the main *manufacturing* States, and those south and west of them which are *agricultural*.

The *leading exports* are articles of food,—wheat, corn, rice, beef, and pork; materials for manufacture, chiefly wool and cotton; tobacco, and gold.

The *principal imports* are tea, coffee, sugar, and various manufactures.

QUESTIONS.—Why should not agriculture and grazing be carried on all over the western half of the country? In what particular parts of the Pacific Highland might they be carried on? Why? Why should agriculture, in the Appalachian Mountain region, be mainly in the valleys? Why should grazing be more extensive than agriculture in New England? Why should not cotton and rice be raised in all parts of the country as are wheat and corn?

Why should manufacturing be more carried on in the North-Eastern States than elsewhere? What materials for manufacture are produced in the New England States? What in the Middle Atlantic States and Ohio? What other very important material can be easily obtained by them all? Why should so many agricultural and mining tools be made?

How is our country fitted to carry on a large domestic commerce? Suppose the productions were alike in all parts of the country, what would be the case in regard to domestic commerce? What if we had not the Mississippi and St. Lawrence systems of rivers?

Why should our exports be such as they are? Why import such articles as we do? Suppose the great business of our country were *manufacturing*; what would be our exports? Our imports?

LOCATION OF CITIES.

CITIES, and large towns, are most numerous in the Middle and North Atlantic States. They are, however, growing up in great numbers in the Central States, at points on the Mississippi and its tributaries, and on the Gt. lakes.

The largest nine cities of our country are *New York*, *Philadelphia*, *Brooklyn*, *Boston*, and *Baltimore*, in the Atlantic coast region; *St. Louis*, *Cincinnati*, *New Orleans*, in the Mississippi basin; and *Chicago*, in the St. Lawrence basin.

San Francisco, which but few years since was a small, poor town, has since the discovery of gold, in 1847, grown to be a great city.

NOTE.—At the discretion of the teacher, the following lessons upon the cities may be deferred until the pupils study the individual States in which they are situated.

ATLANTIC CITIES.

New York and Philadelphia are much the largest cities in our country.

New York is about one and one-fourth times the size of Philadelphia, and Philadelphia is nearly one and three-fourths times the size of either of the others.

I.—1. **New York** is situated on an island, at the mouth of the Hudson, where is one of the finest harbors in the world.

2. The *Hudson* is navigable for large steamers, through the mountains, to *Troy*, about 150 miles from its mouth.

3. *Lake Ontario* is about 150 miles west of *Troy*. Between the two is a broad, low valley, leading through the rest of the Atlantic Highland.

4. Through this valley a canal has been cut from the *Hudson* to the foot of *Lake Erie*; and a branch canal leads from the middle of this to the east end of *Lake Ontario*. Railroads also connect *New York* with every part of the western country.

5. Thus an easy pathway is open from the best harbor on the coast, to just that part of the interior of our country where are raised the grain and wool, beef and pork, which are to be sent to Europe.

This it is which has caused so great a city to grow up at the mouth of the *Hudson*.

II.—1. **Philadelphia** is on the Delaware river, near the head of Delaware Bay which leads to the ocean, giving it advantages for both foreign and coast-wise commerce; and numerous railroads connect it with all parts of the interior.

2. Very near are the mountains, in which are rich mines of coal and iron.

3. On the mountains are forests furnishing lumber, and in all the country round may be bought wool and hides. Cotton may also be easily obtained from the coast cities farther south.

4. Thus we have here the best possible place for a great manufacturing city, such as Philadelphia is.

III.—**Boston**, though much less populous, is next to *New York* in commercial importance. It is situated on a peninsula at the head of *Massachusetts Bay*.

Boston has a fine harbor, and is the great centre of trade for New England. Railroads connect it with the West, and steamers with Europe.

IV.—Brooklyn is at the west end of Long Id., directly opposite New York. Many people whose places of business are in New York have their homes in Brooklyn. Large steam ferry boats cross every few minutes from one city to the other, and a bridge connecting the two cities is now being built.

V.—Baltimore, situated twelve miles west of Chesapeake B., on an arm of Patapsco R., is, like Philadelphia, a great manufacturing city. It has a large commerce, and is the principal market for the middle part of the Miss. basin.

Providence is the largest city of New England, except Boston. It is largely engaged in commerce, and in the cotton manufacture.

Charleston is the largest city and principal commercial port of the South Atlantic States. It is a great rice and cotton market.

Mobile is the largest city of the Gulf States, except New Orleans, and is an important cotton market.

MISSISSIPPI CITIES.

New Orleans is situated on the Mississippi, about one hundred miles from its mouth. It can thus easily reach every part of the interior of our country, and can trade with the Middle and North Atlantic States either by sea or by land. This city is the greatest cotton market in the world.

Cincinnati and **St. Louis** are each the central markets for the rich grain-growing and grazing country which surrounds them. Besides this, they can easily reach by water every part of the Mississippi basin.

Louisville is a large and busy city. It has grown up at a point where there are rapids in the Ohio that hinder navigation. A canal has been cut around these rapids. Very few cities in the interior of any country are so well situated as are Cincinnati, St. Louis, Louisville, and Chicago.

Pittsburg is a great manufacturing city, at the head of the Ohio. *Memphis* is the largest city between St. Louis and New Orleans.

THE LAKE CITIES.

Chicago is situated just at that place where the grain and grazing produce of the surrounding country are most easily gathered together for shipping to New York; and where goods, received from New York, are distributed over the country. A great amount of business of different kinds is carried on here.

Cleveland is the principal lake city of Ohio; *Detroit* of Michigan; *Milwaukee* of Wisconsin. Each is the centre of a large amount of trade.

Buffalo.—Vessels loaded with produce from the western cities, for New York, come down the lakes to the east end of L. Erie. Here most cargoes are unloaded and sent across the State to the Hudson, by the Erie Canal.

At this eastern point of Lake Erie has grown up the city of *Buffalo*. Goods going west from New York by water come by boats on the Hudson and the canal to Buffalo, and are there put into lake vessels to finish their journey.

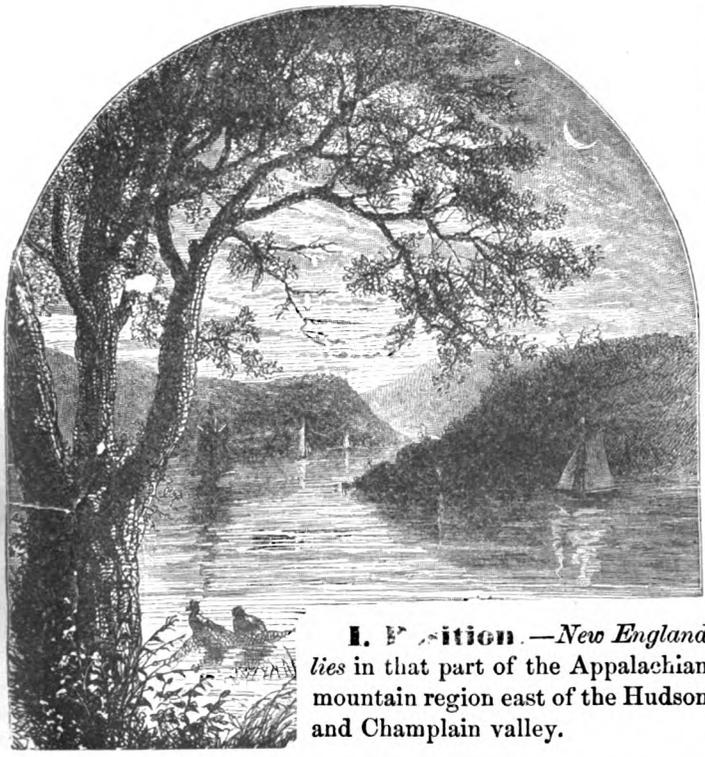
Oswego.—Many lake vessels do not unload at Buffalo, but pass through the Welland Canal, around Niagara Falls, and enter Lake Ontario, going on to the southeast corner of the lake. At this point has grown up the small city of *Oswego*. Here large quantities of wheat and corn are employed in flouring mills, and in a starch factory, the largest of the world. The flour is sent on by canal or railroad to New York, and other eastern cities.

QUESTIONS.—Why should there be more cities in the Middle and North Atlantic States than elsewhere? Why do we not have agricultural cities as well as commercial and manufacturing cities?

To what cities of the United States would you send a vessel for a cargo of cotton? To which one for a cargo of sugar and molasses? Of rice? In what cities could you best sell your cotton? Where would you send for a cargo of grain? Of beef and pork? Where would you sell these things? Where would you buy cotton manufactures? Where would you sell them?

What has caused a city at the east end of L. Erie? Why has one grown up at the southeast corner of L. Ontario?

NATURE OF NEW ENGLAND.



I. Position.—*New England* lies in that part of the Appalachian mountain region east of the Hudson and Champlain valley.

II. Surface.—*The whole surface, except the coast lands, is broken and irregular.*

The *Green Mountains* form the only long mountain range of this section.

The *White Mountains* form a group in the northern part of New Hampshire, and are the highest mountains in the northern half of the Appalachian system.

From the *Hudson* and *Lake Champlain* the land ascends gradually to the summit of the *Green Mountains*; then descends to the *Connecticut*.

It then ascends again slightly, and along the summit of this elevation are *Mt. Wachusett*, in *Massachusetts*; and *Great Monadnock* and *White Mountains*, in *New Hampshire*. From this summit the land descends to the *Atlantic*.

The low ridge extends across the northern portion of *Maine*, dividing the State into two slopes. One slope descends toward the south, the other toward the north.

The coast lands are generally level, and south of *Massachusetts Bay* they are low and sandy.

North of this point the coast is high, much broken, and abounds in fine harbors.

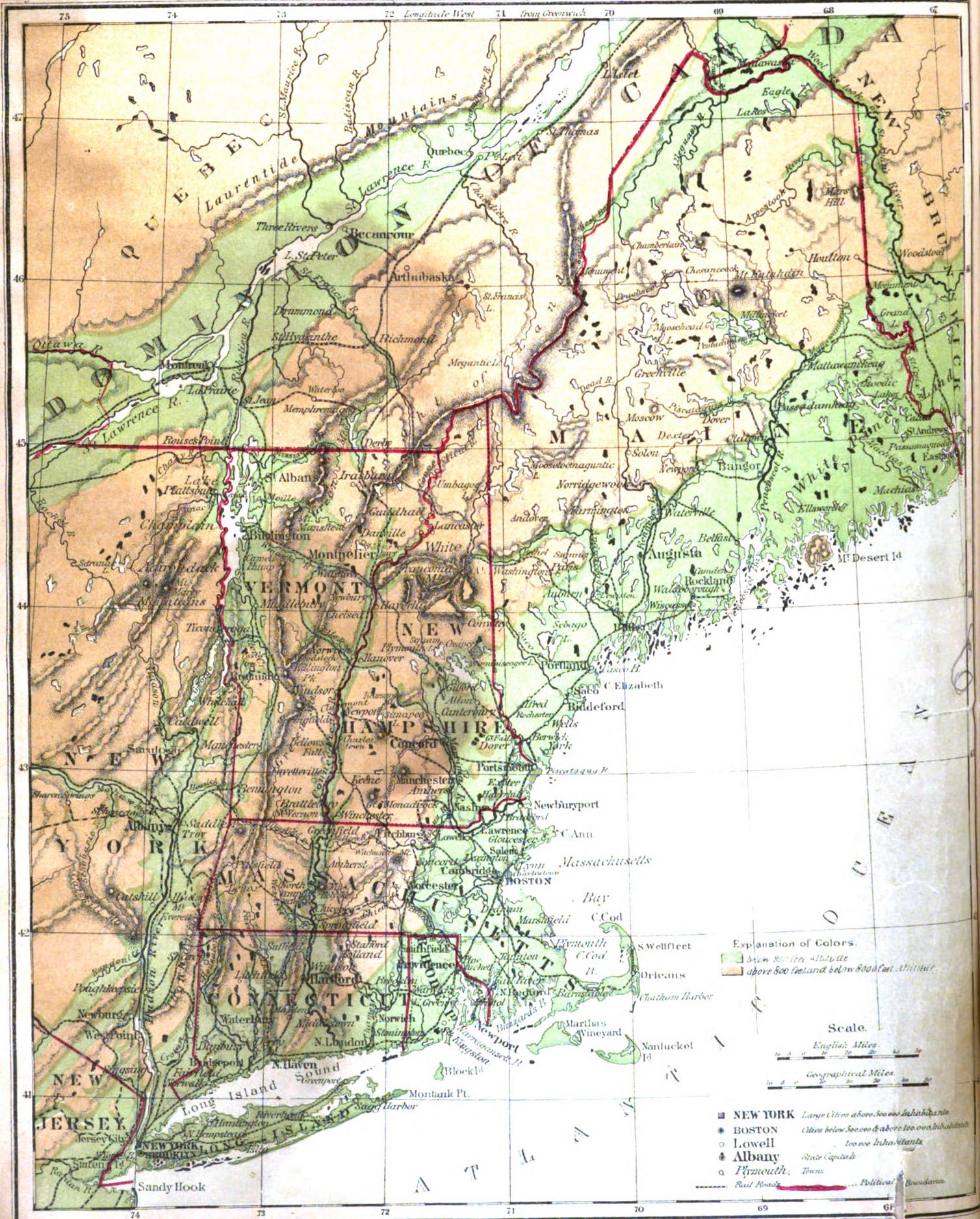
III. Waters.—*New England* is dotted everywhere with clear lakes; and crossed in every direction by streams that have frequent rapids and waterfalls, affording in every part of the country great water-power.

NEW ENGLAND STATES.

By A. Guyot.

Physical and

Political



E. Sandoz, del.

Revised according to Act of Congress in the year 1866 by Charles Scribner & Co. at the Clerk's Office of the District Court of the United States for the Southern District of New York

These lakes and streams, with the forest-covered mountains surrounding many of them, make the country very beautiful.

The largest lakes are *Moosehead*, and *Schoodic* lakes, in Maine; and *Winnipiseogee*,* in New Hampshire.

The *Connecticut*, *Penobscot*, and *Kennebec*, are the largest rivers.

IV. Forests of pine, fir, and hemlock, cover the larger part of Maine; and clothe most of the mountains of the other States to their summits.

There are also extensive oak forests; and chestnut, birch, beech, maple, and elm trees, are common.

V. The soil is not generally fitted to the growth of wheat; but produces fine harvests of corn and oats. Potatoes, and the best varieties of grass, also grow in abundance.

The best lands are the valleys of the rivers, and these are all highly cultivated; but the country generally, because of its rough surface, is better suited to grazing than to agriculture. Great quantities of live stock and wool, butter and cheese, are produced in every State; particularly in Vermont.

NEW ENGLAND.

MAP STUDIES.

NOTE.—The small black spots dotting the land on the maps, represent very small lakes, which are found in great numbers all over New England. Similar spots in the water along the coast, represent small islands.

What States form New England? Which is the largest? Which the smallest? How do New Hampshire and Vermont compare in size and form?

How are they separated?

What river forms part of the boundary between Maine and New Hampshire?

What river forms part of the northern boundary of Maine?

From what does this river separate Maine?

What river forms part of the eastern boundary?

From what does the St. Croix separate Maine?

How many States † of the size of Vermont or New Hampshire do you think might be made from Maine?

What lake forms part of the western boundary of Vermont?

What forms the southern boundary of Maine?

On which side is Massachusetts bounded by the ocean?

On which side do the waters of the sea touch Connecticut and Rhode Island?

How is Maine bounded?

What States surround New Hampshire?

How is Vermont bounded?

What States bound Massachusetts?

Bound Connecticut.

Bound Rhode Island.

Name the New England States in the order of their size.

Name them in the order of their length of sea-coast.

What name is given to that part of the sea south of Connecticut?

What bay in Rhode Island?

Where is C. Cod Bay?

What bay northwest of C. Cod B.?

Where is Penobscot Bay?

Where is Casco Bay?

What two important capes on the coast of Massachusetts?

What is the principal island on the coast of Maine?

Where is Mt. Desert Id. situated?

Form of Answer.—Mount Desert island is situated on the coast of Maine, a short distance east of Penobscot Bay.

What two islands directly south of the peninsula of Cape Cod?

Where is Block Island situated?

What large island south of Connecticut?

To what State does Long Id. belong?

Ans.—Long Island forms part of the State of New York.

Which is the most mountainous State of New England?

Which State has the highest mountains?

What mountains in New Hampshire?

What two States are crossed by the Green Mts.?

Which State has the largest lakes?

Where is Moosehead Lake?

Where are the Schoodic lakes?

Where is Lake Winnipiseogee?

Where is Lake Memphremagog? †

Describe the course of the following rivers:—Pe-nob'-scot, Ken-ne-ber', An-dro-scogg'-in, Mer'-ri-mac, Hou-sa-ton'-ic, Thames. ‡

Where does the Connecticut rise?

In what direction and into what water does it flow?

What States are separated by it?

What States crossed by it?

In what direction and into what water do the Otter and Winooski rivers flow?

Describe the course of the Mis-sis-quoi R.

Describe the course of the Moille? ‡

To what system do these rivers belong?

How do you know this?

To what system do the other rivers of New England belong?

Where is Boston? Cambridge? Lowell?

Where is Springfield? Worcester? New Bedford?

What city on Penobscot river? What city on Casco Bay?

Where is Manchester? Nashua? *New Hampshire*

What city near the head of Narragansett B.? *Providence*

Where is New Haven? Hartford? Norwich? *Connecticut*

What and where is the capital of Vermont? *Montpelier*

The capital of Maine?

The capital of Massachusetts? *Boston*

The capital of New Hampshire? *Concord*

What and where is the capital of Connecticut?

The two capitals of Rhode Island?

How, and in what direction, would you travel from Boston to Montpelier?

From New Haven to Burlington?

From Concord to New York?

From Hartford to Bangor?

Through what important cities would you pass on this last journey?

On what waters would you sail, and what capes and islands would you pass, in going by sea from Boston to New York?

How would you go from Portland to Montreal (on the St. Lawrence)?

What States would you cross, and beside, or across, what rivers and mountains would you pass on this journey?

* Win-ni-pi-sok'-ee. † About 3½. (Area of Maine, about 32,000 sq. m.; of Vermont, 9,000.)

‡ Mem-fre-ma'-gog.

§ Tems.

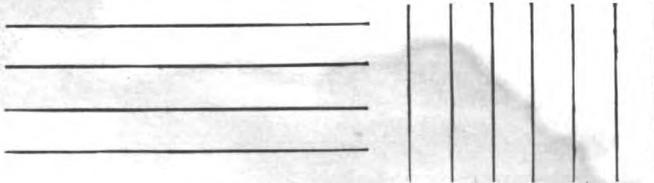
¶ M'wahh.

THE FORM OF THE STATES.

(NOTE.— TEACHERS who desire to have the States drawn in groups, see page 92.)

INTRODUCTION.

LINES, ANGLES, AND FORMS EXHIBITED BY THE STATES.



HORIZONTAL AND VERTICAL LINES.

Corners or angles made by the meeting of two lines receive different names.

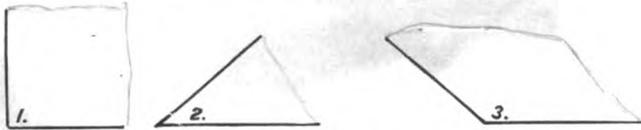
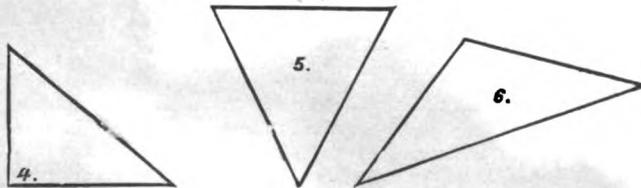
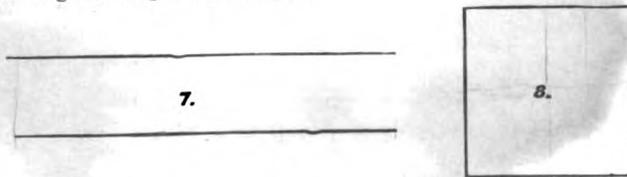


Fig. 1 is a square corner, called a right angle.
Fig. 2 is a sharp corner, called an acute angle.
Fig. 3 is a blunt corner, called an obtuse angle.



Figs. 4, 5, and 6 are called triangles. Each has three angles and three sides. Fig. 4 is a right-angled triangle.



In Fig. 7 are parallel lines. They are everywhere the same distance apart. Fig. 8 is a square. All its sides are equal, and its angles are right angles.

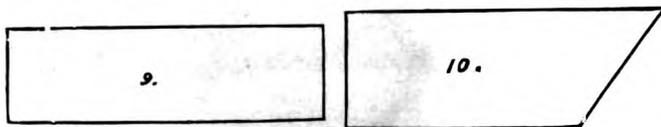


Fig. 9 is an oblong. Its opposite sides are equal and parallel, and all its angles are right angles.
Fig. 10 is called a trap-e-zoid. It has only two sides parallel.

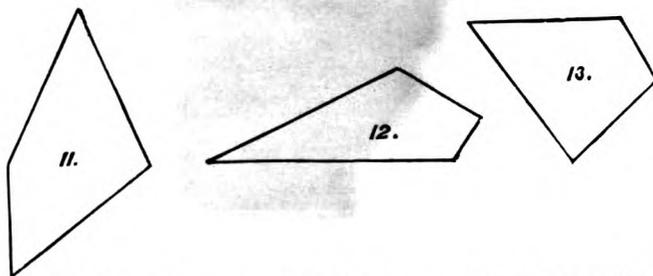


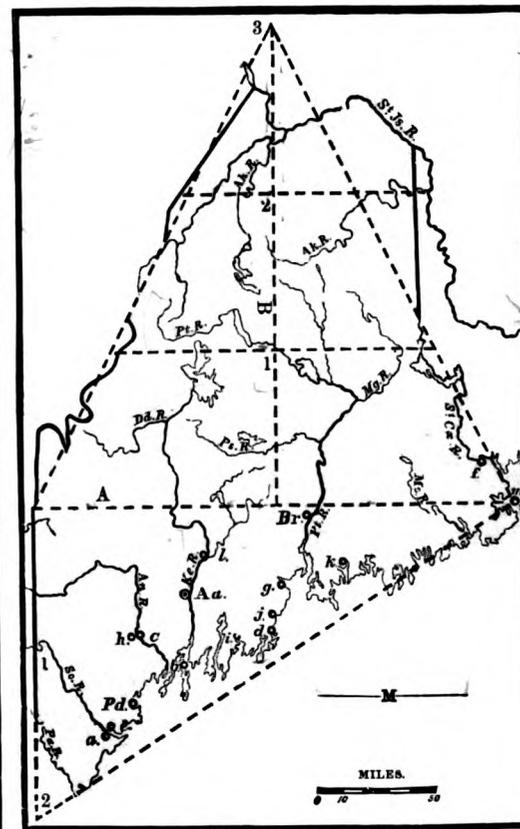
Fig. 11, 12, or 13, is called a trap-e-zium. It has no two sides parallel.

These angles and forms are shown by the different States. Tennessee is a trapezoid, similar to Fig. 10. Kentucky is a trapezium, similar to Fig. 12. Kansas is an oblong, the length being double the breadth. Several States are nearly square.

EXERCISE.

Draw on the blackboard a horizontal line. Draw a vertical line. If you draw a horizontal line across a vertical, what kind of angles will you make? Draw a right angle. Draw an acute angle. Draw an obtuse angle. Draw a triangle. Draw a right-angled triangle. Draw a figure having four equal sides, and four right angles. What is such a figure called? Draw an oblong. What is the difference between an oblong and a square? Draw a trapezoid. What is the difference between this figure and the oblong? What is the difference between a trapezoid and a trapezium? Draw a trapezium. Name some State whose figure is a trapezium. One whose figure is a trapezoid. One whose figure is an oblong.

MAINE.



Length of Measure, 65 miles.

I. Form.—Maine is very irregular in form. Its general figure is a trapezium, longest from north to south.

To OBTAIN THIS FORM.*—1. Draw a horizontal line (A), and bisect † it.
2. At the middle point draw upward a vertical line, B, equal to A, and trisect ‡ it.
3. At the left end of A, draw downward a second vertical line, equal to two-thirds of B.
4. Connect the ends of these lines, and draw the boundaries of the State, as in the diagram.
5. Erase all lines not forming part of the boundary. §

* NOTE.—This method of drawing the form of the States was devised by Mrs. Mary Howe Smith, and introduced into the schools of Oswego in the spring of 1862. It has been used with great success in all our schools of intermediate grade.—E. A. SHELDON, Sec. Bd. of Education.

† Bisect.—To divide into two equal parts. ‡ Trisect.—To divide into three equal parts.

§ All lines which are dotted in these outlines are construction lines, and are to be erased when the outline is completed.

II. Objects to be placed upon the map drawn.

Rivers.	Mt. Katahdin.	Cities.
Penobscot.		AUGUSTA.
Kennebec.	Moosehead L.	Portland.
Androscoggin.	Schoodic L.	Bangor.

N. B. For *Mountains and Lakes* not named in the outlines, See *Map*, p. 58.

III. NOTE—Only the southern half of Maine is much settled. Maine builds more ships than any other State, and exports more lumber than most others.

IV. Cities and Towns.—*Augusta*, the capital of Maine, is situated in the southern part of the State, on the right bank of the Kennebec river.

Sloops ascend the river to this point, giving advantages for commerce. A dam across the river a short distance above the city gives it great water-power for manufacturing.

Portland, the largest city of Maine, is situated on a narrow peninsula, projecting from the west shore of Casco Bay.

It has one of the finest harbors on the Atlantic coast, and is connected by railroad with the principal cities of the Atlantic coast, and with the St. Lawrence. Thus it is one of the leading commercial towns of New England.

Bangor, the second city of Maine, is situated on the right bank of the Penobscot river, northeast of Augusta.

Vessels of large size ascend the Penobscot to this point; and abundant water-power is furnished by a tributary of this river, on both sides of which Bangor is built. This city is an important lumber market.

EXERCISE.

Draw an outline of Maine and describe its form. Bound the State.

What is the extent of Maine from east to west? * From north to south?

Is the larger part of Maine high or low land (see *Map*, page 58)?

Draw and describe the course of the *Penobscot*, *Kennebec*, and *Androscoggin* rivers. *Locate* and describe the position of *Moosehead* and *Schoodic* L. and *Mt. Katahdin*. *Locate* and describe the position of the capital of Maine. The largest city. The second in size.

Give a reason why *Portland* and *Bangor* have outgrown other cities in Maine.

Do you suppose *Augusta* will become a very large city? Why?

NOTE TO TEACHERS.—The following exercises, and similar ones in each State, are designed for classes in that State only.

MAINE CLASSES.

In addition to the above, locate and describe the position of—				
Rivers.	Lakes.	Cities and Towns.		
Saco.	Moosetoc-	† a Biddeford.	f Calais.	k Ellsworth.
Machias.	maguntic.	b Bath.	g Belfast.	l Waterville.
Mattawamkeag.	Sebago.	c Lewiston.	h Auburn.	m Eastport.
Aroostook.	Millinoket.	d Rockland.	i Waldoborough.	
		e Saco.	j Camden.	

Learn at home something regarding each of these towns.

NEW HAMPSHIRE AND VERMONT.

I. Form.—These two States are quite similar in form. Each is much narrower at one end than at the other; and the length of each is about double its greatest breadth.

The two States taken together form an oblong, whose extent from north to south is about one and a half times that from east to west.

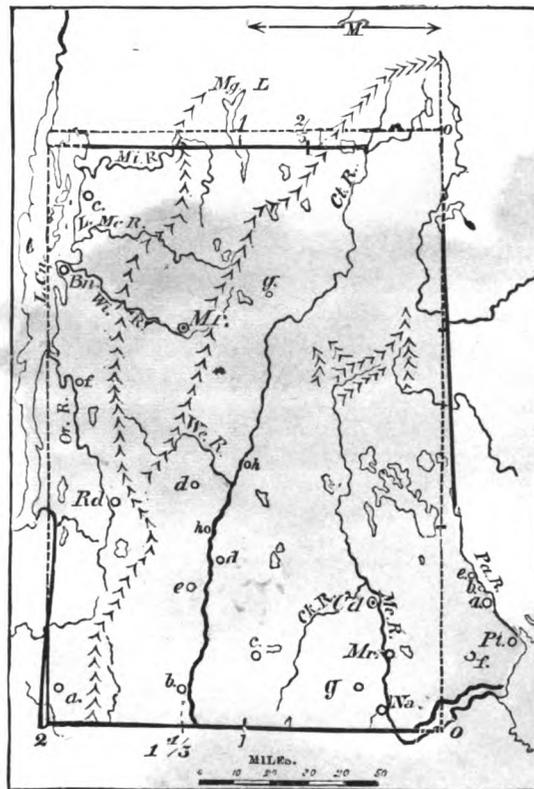
To PRODUCE THIS FORM.—1. Draw a horizontal line, and bisect it, using one-half as M.

2. At each end of the horizontal lines, draw a vertical line equal to three M., and connect their ends.

3. Draw the boundaries of the States, as in the outline.

* Apply the measure to the line A, for breadth; to the line B, continuing to the coast, for length.

† These letters mark these several towns upon the outline.



Length of Measure, 55 miles.

II. Objects to be placed upon the map drawn.

Rivers.	Cities and Towns.		
White Mts.	MERRIMAC.	CONCORD.	MONTPELIER.
Mt. Washington.	Otter.	Manchester.	Burlington.
Green Mts.	Winooski.	Nashua.	Rutland.
Mt. Mansfield.	Winnipiseogee L.	Portsmouth.	

III. NOTE.—Vermont is chiefly a grazing and agricultural State. New Hampshire is largely engaged in manufacturing.

IV. Cities of New Hampshire.—*Concord*, capital of New Hampshire, is situated on the right bank of the Merrimac river, northwest of Boston. It is, in size, the second city of the State.

Large quantities of the finest granite are quarried here. Concord is an important railroad centre. Among its manufactures, carriages are noted.

Manchester, the largest city of New Hampshire, is situated on the Merrimac river, a few miles below Concord. It occupies both sides of the river, but is chiefly on the left.

At this point are the Amoskeag Falls, the most extensive on the course of the Merrimac. Great quantities of cotton goods, delaines, &c., are manufactured here.

Nashua, the third city of New Hampshire, is situated on the Nashua river, near its junction with the Merrimac.

The Nashua river here has a considerable fall affording great water-power, which is used for a variety of manufactures.

Portsmouth, the only important seaport of New Hampshire, is situated at the mouth of the Piscataqua river.

It has a large and very fine harbor, and many of its people are engaged in commerce.

V. Cities and Towns of Vermont.—*Montpelier*, capital of Vermont, is a fine town situated east of the Green Mountains, on the Winooski river.

Burlington, the largest city of Vermont, is situated on the shore of Lake Champlain, near the mouth of Winooski river.

Burlington has a considerable amount of commerce. It is connected by railroad with Montreal and Quebec, as well as with Boston and New York.

Rutland, second town in Vermont, is situated on Otter river, nearly east of the head of L. Champlain.

There are around Rutland fine marble quarries, which are extensively worked.

EXERCISE.

Describe the form of Vermont and New Hampshire. What figure is made by the two States taken together?

Draw the outline of these two States. What forms the boundary between them? Bound each State.

What is the length of New Hampshire? What is its greatest breadth?

What is the length, and the greatest breadth, of Vermont? What is the surface (see Map of New England) of these States?

Draw and describe the course of the Green Mts. Merrimac R. Otter R. Winooski R.

Locate and describe the position of L. Winnipiseogee. Mt. Washington. Mt. Mansfield.

Can you think of any reason why New Hampshire manufactures more than Vermont?

Which State has the best opportunities for commerce? Why? Which can most easily trade with Canada? Why? Where are the largest cities of New Hampshire situated? Are they mainly commercial, or manufacturing cities?

Locate and describe the position of the capital of New Hampshire. The largest city. The third city. The principal sea-port.

What reason can you give for cities having grown up at these points?

Locate and describe the position of the capital of Vermont. Its largest city. The second in size.

NEW HAMPSHIRE CLASSES ONLY.	Locate, in addition to the above :			
	Mountains. Gt Monadnock. Kearsarge.	Rivers. Contoocook. Nashua.	Lakes. Sunapee. Squam. Ossipee.	Cities and Towns. a Dover. e Rochester. b Great Falls. f Exeter. c Keene. g Amherst. d Claremont. h Hanover.
VERMONT CLASSES ONLY.	Locate, in addition to the above :			
	Mountains. Camel's Hump. Killington Peak.	Rivers. Missisquoi. Moille. White. Memphremagog L.	Cities and Towns. a Bennington. e Springfield. b Brattleboro. f Middlebury. c St. Albans. g St. Johnsbury. d Woodstock. h Windsor.	

MASSACHUSETTS.

I. Form.—Massachusetts has its greatest extent from east to west; and is quite narrow from north to south. *The body* of the State is an oblong whose length is about three times its breadth. At its eastern end is a large projection southward.

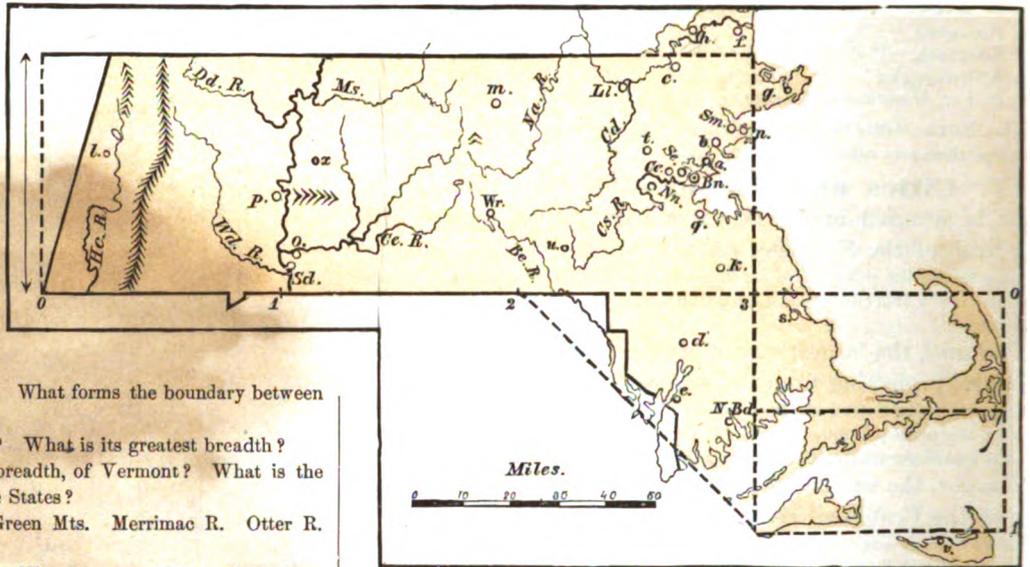
The islands of Nantucket and Martha's Vineyard form part of the State.

To PRODUCE THIS FORM.—1. Draw an oblong, calling its breadth M, and making its length three M.

2. Add at the southeast corner a square, the side of which is one M.

3. Trisect the lower side of the oblong, and connect the right-hand point to the left lower corner of the square.

4. Bisect the square horizontally, and draw the boundaries of the State.



Length of Measure, 60 miles.

II. Objects to appear on the Map drawn.

Mountains. Green. Wachusett.	Rivers. Connecticut. Merrimac.	Cities. Boston. Lowell. Cambridge.	Somerville. Worcester. Springfield.	New Bedford. Salem.
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III. NOTE.—Massachusetts is the first manufacturing State in the Union, and is second only to New York in commerce. It is also one of the first in ship-building, and takes the lead in whaling and the fisheries.

IV. Location of Cities.—Massachusetts has, in proportion to its size, more large cities than any other State in the Union.

Boston, capital of Massachusetts, and one of the great cities of the United States, is situated at the head of Massachusetts Bay.

Boston has one of the finest harbors on the Atlantic coast, and is second only to New York city, in the extent of its commerce. It is surrounded by a number of fine cities, of which *Cambridge* and *Somerville* are the most noted; and, with *Chelsea*, are the largest.

Lowell is situated on the Merrimac river, at the mouth of the Concord.

The Pawtucket Falls in the Merrimac at this point furnish great water-power; and Lowell is one of the first manufacturing cities in the Union. Cotton goods form the leading manufacture.

Worcester, an important manufacturing city, is situated in the interior of the State, nearly west of Boston.

A number of railroads meet here, and the country around is one of the richest agricultural portions of the State. Farming tools, machinery, steel and iron wire, are largely manufactured, with many other things.

Springfield, where United States fire-arms are manufactured, is situated on the Connecticut, near the southern boundary.

Several lines of railroad pass through this city, connecting it with other parts of the country, and it increases rapidly in size.

New Bedford, an important seaport, is situated in the southern part of the State, on the west shore of Buzzard's Bay.

This city has a fine harbor, and is more extensively engaged in whale fishing than any other port on the globe.

Salem, once largely engaged in commerce with Africa and India, is a wealthy city situated on the coast northeast of Boston.

EXERCISE.

Describe the form of Massachusetts. What is the length of the body of the State? What is its breadth?

What is the surface (see Map of New England) of the eastern part of the State? Of the western part?

Draw an outline of Massachusetts, naming, as you draw, the States touching it on each side, and the capes and bays on its coast. What two large islands form part of the state?

Locate and describe the position of the Green Mts. Wachusett Mt.

Draw the Connecticut river, describing its course across the State. How much of the length of the State lies west of the Connecticut?

Draw the Merrimac, describing its course within the State.

What can you say of the number and size of the cities of Massachusetts? Can you give any reason for this?

Locate and describe the position of the capital of Massachusetts. Can you give any reason for its having become so large a city?

Locate and describe the position of Lowell. Cambridge. Somerville. Newton. Springfield. Worcester. New Bedford.

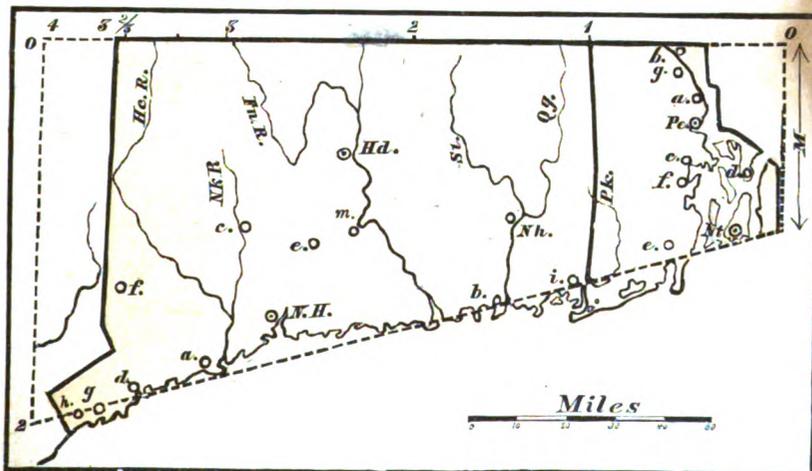
Which of these cities is largest? Can you give any reason for its having outgrown the others? For what is New Bedford noted? Springfield?

Locate, in addition to the above—

MASSACHUSETTS CLASSES ONLY.	Rivers.	Cities and Towns.	
	Nashua.	a Chelsea.	m Fitchburg.
	Concord.	b Lynn.	n Marblehead.
	Mountains.	c Lawrence.	o Chicopee.
	Holyoke.	d Taunton.	p Northampton.
	Saddle.	e Fall River.	q Quincy.
	Tom.	f Newburyport.	s Plymouth.
		g Gloucester.	t Lexington.
		h Haverhill.	u Milford.
		k Abington.	v Nantucket.
		l Pittsfield.	x Amherst.

Learn, at home, something in regard to each of these towns, also Cambridge and Charlestown, the last now a part of Boston.

CONNECTICUT AND RHODE ISLAND.



Length of Measure, 40 miles.

I. Form.—Connecticut is quite regular in form. It is longest from east to west. The eastern end is narrowest, and is about one half the greatest length of the State.

Rhode Island is quite irregular in form. The southern portion extends much farther eastward than the northern. This eastward projection of the State consists of Narragansett Bay, its shores and islands.

To DRAW THESE STATES.—1. Draw a vertical, calling it M.
2. At its top draw a horizontal line to the left equal to four M.

(REVIEW.— Draw New England (See page 92), and locate all objects named in Sect. II. under each State.)

CONNECTICUT CLASSES.	Classes in these States locate, in addition to the above:					
	Rivers.		Cities and Towns.			
	Naugatuck. Nk	a Bridgeport.	d Norwalk.	g Stamford.		
	Farmington. Fh	b New London.	e Meriden.	h Greenwich.		
	Quinebaug. Qy	c Waterbury.	f Danbury.	i Stonington.		
Shetucket. St	m Middletown.					
RHODE ISLAND CLASSES.	Cities and Towns.					
	a Pawtucket.	c Warwick.	e South Kingston.	g Smithfield.		
	b Woonsocket.	d Bristol.	f East Greenwich.			

3. At its end draw a second vertical line downward, two M in length.
4. Connect the ends of the vertical lines, and draw the boundaries.

II. Objects to be placed on the map drawn.

Green Mts.	Cities and Towns.
Rivers.	PROVIDENCE. NEWPORT.
Connecticut.	HARTFORD. Norwich.
Housatonic.	Blackstone. New Haven.

III. NOTE.—Manufacturing is an important business in both these States. Both have a large coast trade, and Connecticut is extensively engaged in whaling.

IV. Cities of Connecticut.—New Haven, noted for its college, is situated on a fine bay entering from Long Island Sound, in the southern part of the State. It is the largest city of Connecticut.

The city of New Haven is third in size in New England. It is one of the handsomest cities in the United States.

Hartford, capital of Connecticut, is situated on the right bank of the Connecticut River, nearly north of New Haven. It is the second city of Connecticut.

The river is navigable for sloops up to this point. The city has good opportunities for both commerce and manufacturing. Its chief manufacture is that of machinery and fire-arms.

Norwich is situated in the eastern part of the State, on the Thames river.

The Thames is navigable up to this point, and the falls here furnish an abundance of water-power for manufacturing purposes.

V. Cities of Rhode Island.—Providence, one of the capitals of Rhode Island, is situated on Providence river, at the head of Narragansett Bay. It is the largest city of the State, and, except Boston, the largest in New England.

The city has a fine harbor; carries on a large commerce, both foreign and coastwise. It is also much engaged in manufacturing.

Newport, the other capital, is situated on an island called Rhode Island, in Narragansett Bay. This place is very famous as a summer resort.

Its harbor is large and very fine, and Newport was once extensively engaged in commerce.

EXERCISE.

Describe the form of Connecticut. Of Rhode Island. What is the length of Connecticut along its northern boundary? What is the greatest breadth of Rhode Island?

Draw an outline of these States, naming the States and waters which border each. Of what does the southeastern part of Rhode Island consist? What mountain range enters the northwestern part of Connecticut? What is the surface (see Map, p. 58) of Rhode Island? Of Connecticut?

Draw the Connecticut river, describing its course through the State. How does it divide Connecticut? Draw and describe the course of the Housatonic. The Thames. The Blackstone.

Locate and describe the position of the capitals of Connecticut. Which of these is the larger? How does New Haven compare in size with other cities of New England? Locate and describe the position of Norwich. What reason can you give for a city at this point?

Locate and describe the position of Providence and Newport.

STATES EAST OF THE MISSISSIPPI.

MAP STUDIES.

I. Middle Atlantic States.—POSITION AND SIZE.—Point to and name each of the Middle Atlantic States. Which is the most northern? Which is the most southern? Which is the largest of these States? Which is the smallest? Name them in the order of their size.

Ans.—1. New York. 2. Pennsylvania. 3. Virginia. 4. West Virginia. 5. Maryland. 6. New Jersey. 7. Delaware.

Bound each State, naming and stating the position of its capital.

COAST AND SURFACE.—What two large bays on the coast of this section? What two capes at the entrance of Delaware Bay? What two at the entrance of Chesapeake Bay? What is the surface of the larger part of this section? What mountain system crosses this section? Which are the principal ranges of this system? How do these ranges compare in direction? What States does each cross? What mountains in the northern part of New York? What mountains in the southeastern part of New York?

INLAND WATERS.—Describe the course of the Hudson River. Name the river which flows into Delaware B., and describe its course. Name and describe the course of the three large streams flowing into Chesapeake Bay? Into what portion of the bay does each enter? Describe the course of the Roanoke river?

What two large rivers form part of the western boundary of this section? To what system does the Ohio belong? What river forms part of the boundary between West Virginia and Kentucky? What large river¹ crosses West Virginia? Describe its course? What two rivers unite to form the Ohio? Describe the course of each?

Which two of the Great Lakes border this section? Which of the two is the greater? What river flows across western New York into Lake Ontario? What lake on the eastern boundary of New York? Into what do its waters flow?

WATER SHED.—What is the general direction of the streams of the eastern part of the section? What is the general direction of the streams in the western part of the section? Why are the rivers thus divided along the middle of this section? What forms the water-shed between the eastern and the western streams? How do you know this?

CITIES.—Where is New York City? What city opposite it, on Long Island? What city at the east end of Lake Erie? What and where is Albany? What city on the Genesee River, near L. Ontario? What city on the Hudson nearly opposite Albany? What city on the southeast shore of Lake Ontario? Where is Syracuse? Where is Utica? Where is Newark? Jersey City? Paterson? What and where is Trenton? Where is Philadelphia? What large city at the junction of the Alleghany and Monongahela rivers? What city on the Alleghany opposite Pittsburg? Where is Reading? What and where is Harrisburg?

What city in Delaware near the mouth of Delaware river? What and where is the capital of Delaware? What great city near the northern part of Chesapeake Bay? Where is Cumberland? Frederick City? What and where is the capital of Maryland? What and where is Washington?

What and where is Richmond? What city at the mouth of the James river? Where is Petersburg?

Where and what is Wheeling? Where is Parkersburg?

II. South Atlantic and Gulf States.—POSITION AND SIZE.—Name all the South Atlantic States. Name all the Gulf States.

Which of each group is found on the opposite page? Bound each of these States, naming and describing the location of its capital.

Name the South Atlantic and Gulf States in the order of their size.

Answer.—1. Texas. 2. Florida. 3. Georgia. 4. Alabama. 5. Mississippi. 6. Louisiana. 7. North Carolina. 8. South Carolina.

How many States like Florida could be made from Texas?

Ans.—Texas is about four times the size of Florida.

¹ Ka-naw'-ah.

How many States like South Carolina could be made from Florida?

Ans.—Florida is nearly two and one half times the size of South Carolina. How does South Carolina compare with New York and Maine?

Ans.—South Carolina is a very little more than one half the size of New York, and about three-fourths the size of Maine.

COAST AND SURFACE.—Which of the States upon the opposite map has the most irregular coast? What two sounds on the coast of North Carolina? What three capes on its coast? Where is Mobile Bay? Where is C. St. Blas?

Are these States mainly high land, or low land? Which of them have some mountainous surface? What ranges of the Appalachian system enter these States?

INLAND WATERS.—Name and describe the course of the three principal rivers of North Carolina. Name and describe the two principal streams of South Carolina. What two rivers unite to form the Santee?

What river forms the boundary between South Carolina and Georgia? What river forms part of the boundary between Georgia and Florida? What stream¹ enters the sea midway between the Savannah and St. Mary rivers? What two streams² unite to form it?

What States are in part separated by the Chat-ta-hoo'-chee river? Describe the course of the Chattahoochee. What stream unites with it to form the Ap-pa-lach-i-co'-la?

What two rivers enter Mobile Bay? What is the upper course of the Mobile called? What is its principal tributary? What two rivers unite to form the Alabama?

What river forms the Western boundary of Mississippi? Describe the course of the Pearl river. The Yazoo.

CITIES.—What and where is the capital of North Carolina? Where and what (see page 71) is Wilmington? Newbern? What (see page 72) and where is Charleston? Where and what is Columbia? Where is Georgetown?

Where and what is the capital of Georgia? Its largest city? Where is Augusta? Atlanta? What and where is the capital of Florida? Where is Pensacola? Jacksonville?

Where and what is Montgomery? Mobile? Where is Tuscaloosa? Where is the capital of Mississippi? Where is Natchez? Where is Mississippi City?

III. Central States.—POSITION, SIZE, AND SURFACE.—Which of the Central States lie at the East of the Mississippi? Which border the Great Lakes? Which border the Ohio? Which border the Mississippi?

How do these States eastward of the Mississippi compare in size? *Ans.* They are not very unequal. Michigan, the largest, is about *one and two thirds* times the size of Indiana, which is the smallest of these States.

Bound each State, naming and describing the location of its capital.

Is this section mainly high land, or low land? Which of these States have some part of their surface mountainous? What mountain ranges border or enter these States?

INLAND WATERS.—In what direction does the Mississippi river flow, and what States does it separate? Describe the course of the Ohio, and name the States separated by it. Describe the course of the Tennessee R., Cumberland R., Green R., Kentucky R., Licking R.

Describe the course of the Wabash R., White R., Miami R., Scioto R., Muskingum R. Describe the course of the Kaskaskia R., Illinois R., Rock R., Wisconsin R., Chippewa R., St. Croix R.

In what direction does Lake Superior extend? In what direction do its waters flow? In what direction do the waters of L. Michigan flow? The waters of L. Huron? Those of L. Erie and L. Ontario? Name all the States that touch each of these lakes.

Describe the course of Wolf R., Grand R., St. Joseph R., Maumee R.

CITIES.—What (see text upon the State of Ohio) and where is Cin-

¹ A'-ta-ma-haw'.

² O-co'-nee, Oc-mul'-ghee.

UNITED STATES

By A. Guyot

Eastern Part.

Physical and Political.



Entered according to Act of Congress in the Year 1867, by Charles Scribner & Co. in the Clerk's Office of the District Court of the U. S. for the Southern District of New York.

cinnati? Where is Cleveland? Dayton? What and where is Columbus? What and where is Indianapolis? Where is New Albany? Madison? Evansville?

What great city near the head of L. Michigan? What and where is the capital of Illinois? Where is Peoria? Quincy? Where and what is Lansing? Where is Detroit? Grand Rapids? Adrian?

What and where is Madison? What and where is the capital of Wisconsin? Where is Milwaukee? Racine?

What (see text, page 78,) and where is the largest city of Kentucky? Its capital? What large city of Kentucky opposite Cincinnati?

What and where is the capital of Tennessee? Its largest city? Where is Knoxville?

General Questions.—Near what four State capitals will you pass in going from Trenton directly westward to the Mississippi river? Near what important city will you strike the Mississippi?

How many and what capital cities will you pass in going from Baltimore to Vicksburg, Miss., keeping parallel with the coast of the mainland (omitting the

peninsula of Florida)? Can you find any reason for these and other cities being along this line?

Which two of our great cities are situated very nearly due west from Baltimore? Which one lies nearly due west from New York? Near what State capitals and what important cities would you pass in going from Albany directly west to the Mississippi? What State capital is nearly due east from Louisville and Frankfort? From Nashville and Knoxville?

What route would you take in going by water from St. Louis to New York? From Philadelphia to Cincinnati? Find a route from Chicago to New York, going as much of the way as possible by water? From Baltimore to Chicago? How would you travel by water from Albany to Washington? From Nashville to Milledgeville? From Pittsburg to Mobile?

Find on the map of the United States a route by railroad from New York to each of our great cities, and name the important cities lying on each route.

Make a table showing the two principal rivers, the capital and the largest cities (those named above) in each state.

NATURE OF THE MIDDLE ATLANTIC STATES.

I. Position.—*These States lie in the middle part of the Appalachian Mountain region, extending from Lake Champlain to Lake Erie; and from the Atlantic to the Ohio river.*

II. Surface.—The Appalachian mountains extend through this section from northeast to southwest, in long parallel ranges, separated by broad and very fertile valleys.

The principal ranges of the System are the Blue Ridge, and the Alleghany range, between which are several lower ranges.

All the ranges are broken by frequent cross-valleys or gorges. Through these the rivers find their way from the Alleghany range, and the plateau at its western base, across the entire system to the Atlantic ocean.

Many of these gorges are very grand. Among the most celebrated are the Delaware Water Gap and the passage of the Potomac at Harper's Ferry.

East of the mountains a hilly country extends about half way to the sea. Beyond this is a low flat coast district which is either sandy or marshy.

A marsh of great extent, called the Great Dismal Swamp, is found in Southern Virginia. In the midst of it is Drummond Lake. (See page 53.)

The boundary between the hill country and the coast lands is called the Ridge. It is marked upon the map by a shading like one side of a mountain range, which commences at the Delaware river and extends southward nearly parallel to the coast.

Wherever this shading occurs upon the map it represents the slope, or descent from a higher to a lower region of country.

West of the mountains is a low plateau, which descends westward to the low plains of the Mississippi.

III. Waters.—This section has fewer lakes than New England, but its rivers are larger, and are navigable to a greater distance.

The rivers flowing into the Atlantic, with the exception of the Hudson, are navigable from the sea only to the Ridge, or border of the hill-country. Here they form rapids or waterfalls and afford great water-power. The Hudson is navigable for large steamboats to the mouth of the Mohawk.

IV. Forests similar to those of New England cover the mountainous portions of every State, and furnish large quantities of fine lumber. The most extensive forests are in



PASSAIC FALLS.

the Adirondack and Catskill regions of New York, in Pennsylvania, and in Virginia.

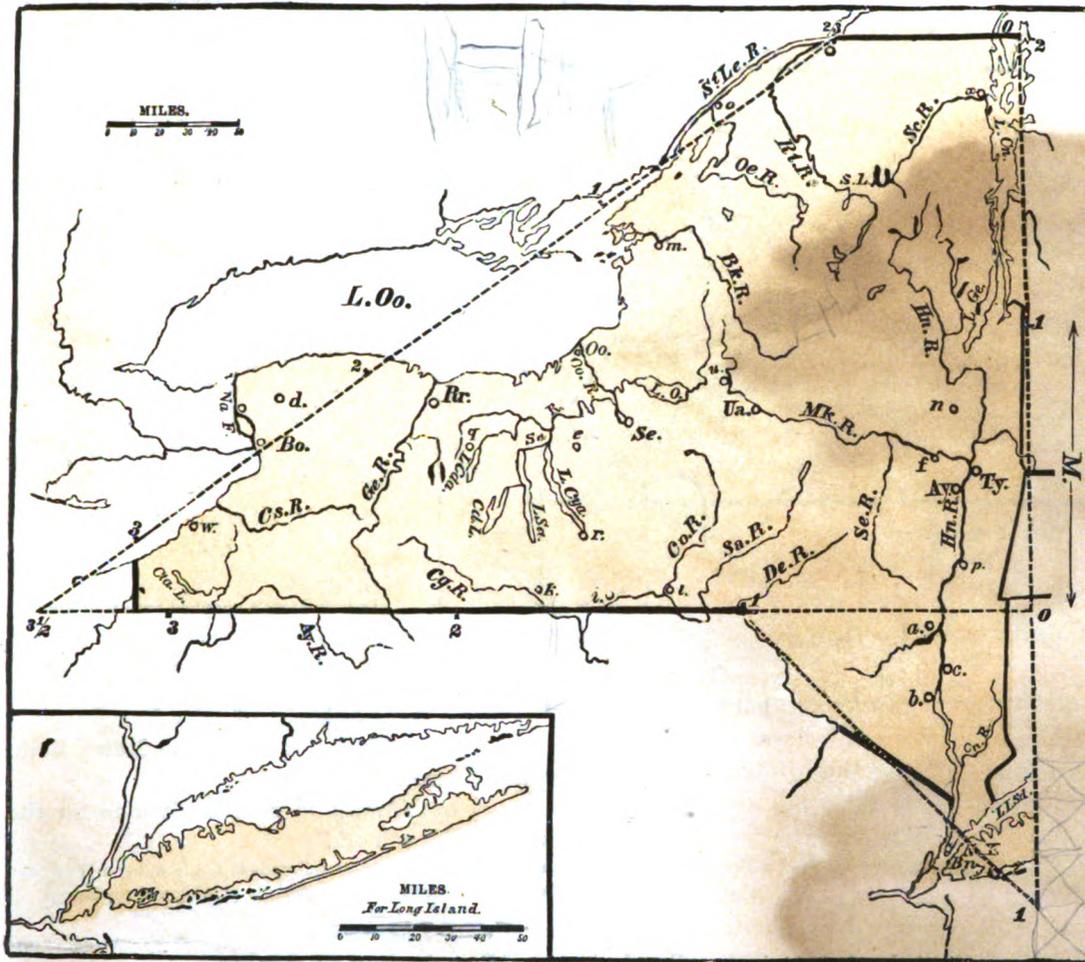
V. The soil of this section is more generally fertile than in New England. The valleys and plains are well adapted either to agriculture or market gardening. The rougher portions of the country afford excellent pasture, and are devoted to grazing.

Great quantities of grain, hay, potatoes, and orchard fruits are produced. Tobacco and flax are largely cultivated; and sweet potatoes are raised in all the more southern States.

Kentucky and Virginia are the first States of the Union in the production of tobacco. New Jersey and Delaware produce great quantities of garden vegetables and fruits for the city markets.

New York is the first State of the Union in the production of orchard fruits, butter and cheese, and is next to Ohio and California in the production of wool.

NEW YORK.



Length of Measure, 110 miles.

IV. Location of Cities

—See page 56, for *New York*, the largest city; *Brooklyn*, second in size; *Buffalo*, third; and *Oswego*.

Albany, capital of the State of New York, and an important commercial city, is on the right bank of the Hudson, a few miles below the mouth of the Mohawk.

Rochester, an important manufacturing city, is situated on the Genesee river, seven miles from L. Ontario.

The Genesee falls, at this point, furnish great water-power, which is employed in turning the machinery of a number of large flour mills, and for other manufacturing purposes.

Troy, noted for its extensive iron-works and car-factories, is situated on the Hudson at the head of steamboat navigation.

Water-power is furnished by the Hudson, and one of its tributaries, which enters the river at this point.

Syracuse, situated in the western part of the State, is remarkable for its Salt Works, the most extensive in the United States.

Utica, situated on the Mohawk, is the seat of the State Lunatic Asylum.

I. Form.—New York is quite irregular in form. The extreme length from east to west, is a very little more than from north to south.

To DRAW NEW YORK—1. Draw a vertical line and trisect it, marking one part M.

2. At the upper end and at the lower point of division, draw horizontal lines to the left. Make the lower one three and one-half M in length; the upper, two-thirds M in length.

3. Connect the ends of these horizontal lines, and apply M three times to the connecting line, beginning at the north end.

4. On the lower horizontal line place a point one M from the vertical; connect it to the lower end of the vertical, and draw the boundaries of the State.

N. B.—For mountains and lakes not shown upon the following outlines, see the maps pages 65 and 75.

II. Objects to be placed upon the map drawn.

Mountains.	Rivers and Lakes.	Cities and Towns.
Adirondack.	Hudson R.	New York.
Catskill.	Genesee R.	ALBANY.
	Susquehanna R.	Syracuse.
		Oswego.
		Brooklyn.
		Rochester.
		Troy.
		Utica.
		Buffalo.
		Niagara Falls.
		L. George.

III. NOTES.—New York is the first State of the Union in the amount of its commerce; and one of the first in manufacturing and agriculture.—*Mines* of iron and lead are extensively worked in the northeastern and southeastern parts of the State; and salt in great quantities is produced from springs near Syracuse.

EXERCISE.

Describe the form of New York. Draw an outline of the State naming the States and waters which bound it. What is the greatest length of the State from east to west? From north to south? What is the surface of this State? (See map page 65.)

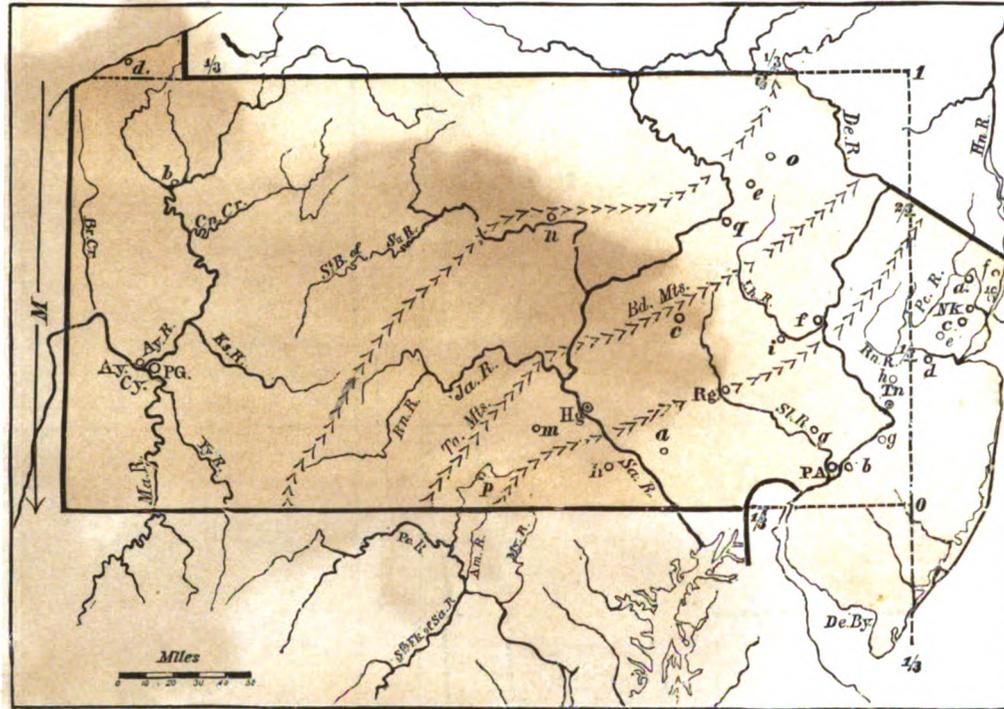
Draw and describe the position of each of the mountain regions named above. Draw and describe the course of each of the rivers named. Locate and describe the position of each of the cities named.

What can you say of the size of New York? What reason can you give for this? What advantage has Brooklyn over the other cities of the State? Buffalo is next Brooklyn in size; what has caused it to become so large?

Which of the other towns have the most desirable position? Why? What is the importance of Syracuse? Rochester? What advantage do you suppose Oswego derives from Oswego river?

NEW YORK CLASSES.	Locate, in addition to the above:		
	Lakes.	Cities and Towns.	
	Oneida.	Crooked.	a Kingston.
	Cayuga.	Canandaigua.	m Watertown.
Seneca.	Chautauqua.	b Newburg.	
		n Saratoga.	
		c Poughkeepsie.	
		d Lockport.	
		e Auburn.	
		f Schenectady.	
		i Owego.	
		k Elmira.	
		l Binghamton.	
		x Plattsburg.	
	Rivers.		
Saranac.	Delaware.		
Racket.	Chenango.		
Oswegatchie.	Chemung.		
Black.	Alleghany.		
Schoharie.	Cattaraugus.		
	Croton.		

PENNSYLVANIA AND NEW JERSEY.



Length of Measure, 165 miles.

I. Form.—*Pennsylvania* is one of the most regular of the States in form. Its boundaries are mainly straight lines; and its greatest length is nearly twice its breadth.

New Jersey, though quite irregular in outline, is nearly of uniform width in every part. Its average breadth from east to west is about one-third its length.

To DRAW THESE STATES.—1. Draw an oblong, making its length double its breadth. Call the breadth *M*.

2. Trisect the right hand side, and draw at the bottom a vertical line equal to one of the thirds.

3 Place a point on each horizontal line, one third *M* from the line trisected.

4. Draw the boundaries of the States.

II. Objects to be placed upon the map drawn.

	Rivers.	Cities and Towns.	
Mountains.	Susquehanna.	HARRISBURG.	TRENTON.
Alleghany.	Juniata.	Philadelphia.	Jersey City.
Blue Ridge.	Alleghany.	Pittsburg.	Newark.
	Monongahela.	Alleghany City.	
	Delaware.		

III. NOTES.—*Pennsylvania* is the first State of the Union in the extent of its mining business, and ranks with New York in manufactures and agriculture. Immense quantities of petroleum are obtained from wells in the north-western part of the State.

The coal and iron mines most worked are between the Susquehanna and Delaware rivers and around Pittsburg.

Within New Jersey are extensive beds of *marl*, by means of which even its most sandy lands are made very productive. New Jersey has also *zinc* mines which are considered the richest in the United States.

IV. Cities of Pennsylvania.—*Harrisburg*, capital of Pennsylvania, is situated on the left bank of the Susquehanna, north of the Blue Ridge.

Railroads and canals give it fine opportunities for commerce, and the coal and iron near it supply abundant means for manufacturing.

For *Philadelphia*, largest city, see page 56.

Pittsburg, second city of Pennsylvania, is situated at the junction of the Alleghany and Monongahela rivers. This is one of the leading manufacturing cities of the United States. It has also a large commerce.

Pittsburg is surrounded with low mountains, in which are rich mines of iron and coal—supplying the immense iron foundries, rolling mills, and machine shops of the city. Pittsburg is the greatest market in the Union for bituminous coal and petroleum.

Alleghany City, situated opposite Pittsburg, on the Alleghany river, shares its advantages, and is in size the third city of the State.

V. Cities of New Jersey.—*Trenton*, capital of New Jersey, is situated on the Delaware, at the head of steamboat navigation.

Trenton is well supplied with water-power, and is largely engaged in manufacturing.

Newark, the largest city of New Jersey, is situated on the right bank of the Passaic river nine miles west of New York.

It is largely engaged in manufacturing.

Jersey City, next to Newark in size, is situated on the Hudson river, opposite New York.

This city is the starting point of several railroads to the South and West, and is connected with New York by ferry-boats, constantly passing and repassing.

EXERCISE.

Describe the form of Pennsylvania. Of New Jersey.

Draw an outline of each State, naming its boundaries.

What is the breadth of Pennsylvania? Its greatest length? What is the length of New Jersey through the centre? Its breadth?

What is the surface (see map, page 65) of each of these States?

Locate and describe the course of the Alleghany Mts. The Blue Ridge.

Draw and describe the course of each of the rivers named above.

Locate and describe the position of the capital of Pennsylvania. Its largest city. Its second city. The third in size.

Locate and describe the position of the capital of New Jersey. Its largest city. The second in size.

What reason can you give for the great size of Philadelphia? What reason for the importance of Pittsburg and Alleghany City?

Locate, in addition to the above: Tuscarora and Broad Mts.

PENNSYLVANIA CLASSES.	Lehigh River.		Cities and Towns.	
	Schuylkill.	Ry Reading.	e Scranton.	m Carlisle.
	South Branch of Susquehanna.	a Lancaster.	f Easton.	n Williamsport.
	Kiskiminetas.	b Oil City.	g Norristown.	o Carbondale.
	Clarion.	c Pottsville.	h York.	p Chambersburg.
	Youghiogheny.	d Erie.	i Allentown.	q Wilkesbarre.

Learn something about each of these towns.

Locate, in addition to the above:

NEW JERSEY CLASSES.	Rivers.	Cities and Towns.		
	Raritan.	a Paterson.	e Rahway.	
	Passaic.	b Camden.	f Hackensack.	
		c Elizabeth.	g Burlington.	
		d New Brunswick.	h Princeton.	

Learn something about each of these towns.

MARYLAND AND DELAWARE.

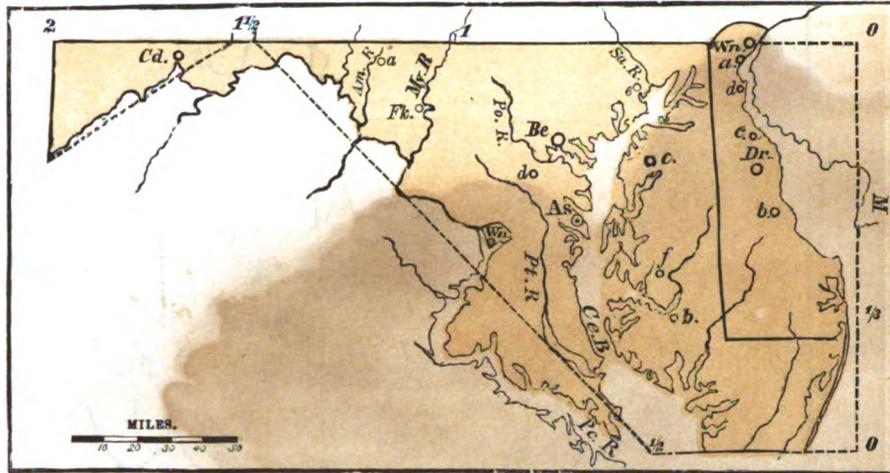
I. Form.—The greatest length of each of these States is about double its greatest breadth. Delaware is longest from north to south; Maryland, from east to west. Each tapers nearly to a point toward one end, then expands.

To DRAW THESE STATES.—1. Draw a vertical line, calling it M.

2. At each end of it draw horizontal lines to the left. Make the upper one and one half M in length; the lower, one half M. Connect their ends.

3. Trisect the vertical line and draw the boundaries of Delaware.

4. Add the small triangle, very nearly one half M in length, and one third M in breadth; and draw the boundaries of Maryland.



Length of Measure, 122 miles.

II. Objects to be placed on the map drawn.

Chesapeake Bay.	Rivers.	Cities and Towns.
Mountains.	Susquehanna.	ANNAPOLIS. Frederick.
Alleghany.	Patuxent.	Baltimore. DOVER.
Blue Ridge.	Patapsco.	Cumberland. Wilmington.
		WASHINGTON.

III. NOTE.—Mines of coal, iron, and copper are worked in the mountainous part of Maryland. Fine sand, for glass-making, is found near the head of Delaware Bay.

Maryland is, also, one of the most commercial States of this section.

IV. Cities of Maryland.—For *Baltimore*, the largest city of the State, see page 57.

Annapolis, capital of Maryland, is a small city, situated near the west shore of Chesapeake Bay, southward from Baltimore.

Frederick, the second city of Maryland, is situated nearly west of Baltimore, in the midst of a rich agricultural region.

Cumberland, third city of Maryland, is situated on the Potomac, near the Alleghany mountains.

Rich mines of coal are found in this part of the State, and the city is noted for its coal trade.

V. Cities of Delaware.—*Dover*, capital of Delaware, is a small town situated in the interior of the State, nearly east of Baltimore.

Wilmington, the largest city of Delaware, is situated on a tributary of the Delaware river, near its mouth.

This city has large manufactures of machinery and gunpowder, and numerous flouring mills.

The other towns of Delaware are all very small.

EXERCISE.

Describe the form of Maryland and Delaware. Draw an outline of those States, naming their boundaries. What is the greatest length of each? Locate Chesapeake Bay, and describe its position in the State.

What is the surface of Maryland? Of Delaware? Draw the boundary between the hill country and the low lands of Maryland. Locate and describe the position of the Alleghany Mts. Blue Ridge. Susquehanna River. Patuxent R.

Locate and describe the position of Baltimore. Annapolis. Cumberland. Locate and describe Dover. Wilmington. What can you say of the other towns of these States? What and where is Washington?

ADDITIONAL FOR MARYLAND CLASSES.	Locate and describe the position of—			
		Towns.		
	Rivers.	a Hagerstown.	e Havre-de-	
	Monocacy.	b Cambridge.	Grace.	
	c Chestertown.	f Easton.		
	d Ellicott City.			
DELAWARE CLASSES.	Towns.			
	a Newcastle.			
	b Milford.			
	c Smyrna.			
	d Delaware City.			

VIRGINIA AND WEST VIRGINIA.

I. Form.—These two States are very irregular in form, their boundaries mainly consisting of rivers, mountains, and the sea coast. Virginia has a somewhat triangular form.

To DRAW THESE STATES.—1. Draw a horizontal line, dividing it into four equal parts. Call one part M.

2. Bisect the two quarters at the left of the middle. At the middle point of each, and at the right end of the horizontal line, draw vertical lines upward. Make the first and third each one M in length; the second, two and one half M.

3. Two M above the first horizontal line draw a second to the right, commencing at the vertical line, and making it one M in length.

4. Connect the ends of these lines as in the figure (next page); draw the oblique dividing line, and trace the boundaries of the States.

II. Objects to be placed on the map drawn.

Mountains.	Rivers.	Cities and Towns.
Alleghany.	Rappahannock.	Great Kanawha. RICHMOND.
Blue Ridge.	James.	Guyandotte. Petersburg. Parkersburg.
	Roanoke.	Norfolk. CHARLESTON.

III. NOTE.—West Virginia was a part of Virginia until 1862, when it became a separate State. Both states are rich in coal and iron mines. Gold mines exist in the southern part of Virginia. Petroleum and salt are abundant in West Virginia.

IV. Cities of Virginia.—*Richmond*, the capital and largest city of Virginia, is situated on the James river, nearly south of Washington. It is extensively engaged both in manufacturing and commerce.

At this point the river, in descending from the hill country to the low coast land, forms falls which afford great water-power. Richmond exports large quantities of tobacco, wheat, and flour.

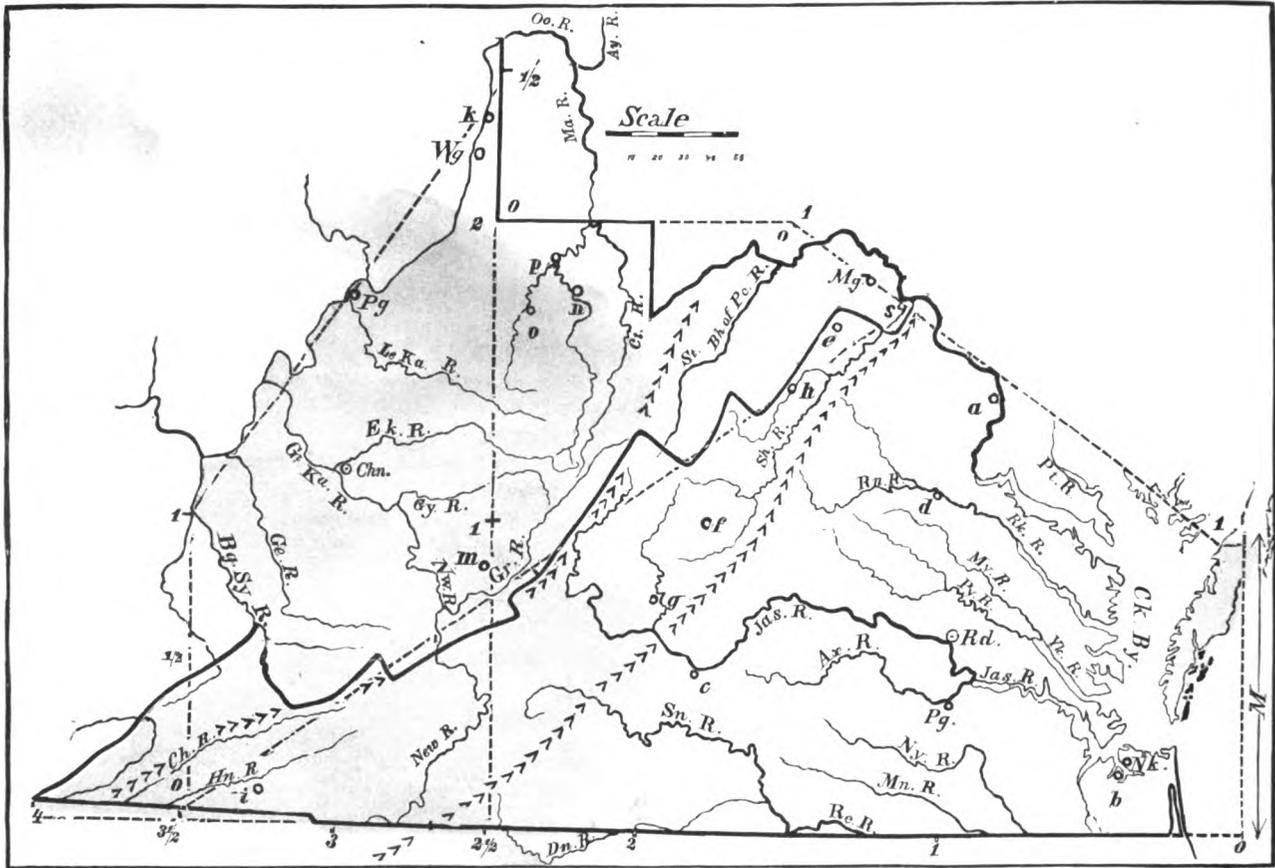
Norfolk, second city in size, and the principal seaport of Virginia, is situated on an arm of Chesapeake Bay, near the mouth of James river.

Norfolk has one of the finest harbors on the Atlantic coast, and carries on a large foreign commerce.

Petersburg, third city of Virginia, is situated on a tributary of the James river, directly south of Richmond.

This city also is supplied with water-power by falls in the river on which it is situated.

V. Cities of West Virginia.—*Wheeling*, the largest city of West Virginia, is situated on the Ohio River, in the narrow northward extension of the State, which lies west of Pennsylvania. It is the capital of the State.



Length of Measure, 115 miles.

Wheeling is the most important city on the Ohio between Pittsburg and Cincinnati. It is supplied with coal from the country surrounding it, and is largely engaged in manufacturing, as well as in commerce.

Parkersburg, situated on the Ohio, at the mouth of the Little Kanawha, is the second city of West Virginia. *Charleston*, the recent capital, is a small town on the Great Kanawha River.

EXERCISE. — What is peculiar in the form of Virginia and West Virginia? Draw an outline of the States, naming their boundaries. What is the surface of Virginia? Of West Virginia? Draw the boundary between the hill country, and the low lands of Virginia.

Locate and describe the course of the Alleghany Mts. Blue Ridge.

Draw and describe the course of each of the rivers named above.

Locate and describe the position of Richmond. Petersburg. Norfolk. Which of these are situated at the eastern boundary of the hill country?

What important cities further north (see map, page 65) are situated on or very near this boundary?

Why should they have grown up at these points? Locate and describe the position of Wheeling. Parkersburg.

Locate, in addition to the above:

VIRGINIA CLASSES.	Rivers.	Cities and Towns.		
	Shenandoah.	Nottoway.	a Alexandria.	f Staunton.
	York.	Meherrin.	b Portsmouth.	g Lexington.
	Mattapony.	Staunton.	c Lynchburg.	h Woodstock.
	Pamunkey.	Holston.	d Fredericksburg.	i Abingdon.
	Appomattox.	Clinch.	e Winchester.	

Learn something about each of these towns.

WEST VIRGINIA CLASS.	Rivers.	Cities and Towns.		
	Little Kanawha.	Monongahela.	Mg Martinsburg	o Clarksburg.
	New.	Cheat.	k Wellsburg.	p Fairmont.
	Greenbrier.	South Branch of Potomac.	m Lewisburg.	s Harper's Ferry.
	Elk.		n Grafton.	

Learn something about each of these towns.

(**REVIEW.** — Draw this group of States (See p. 92), and locate all objects named in Sect. II. under each state.)

NATURE OF SOUTH ATLANTIC AND GULF STATES.

I. Position.—These States lie along the coast south of Chesapeake Bay. Texas and nearly all of Louisiana lie west of the Mississippi river.

II. Surface.—Each State east of Mississippi, except Florida, is crossed near the centre by the ridge separating the low lands of the coast from the higher lands near the moun-

tains. The low lands, as in the former section, are either sandy or marshy.

Florida and *Louisiana* are wholly low land. The greater part of Mississippi is also low.

The rivers of these sections are, like those of the preceding section, navigable throughout the lower lands; while in the

higher lands they afford great water-power. There are few lakes except in the low marshy coast regions, and these are generally shallow and muddy.

III. Climate.—These sections include the warmest part of the United States; and, excepting in the northwestern part of Texas, the climate is very moist.

The winter is mild in all the States. In the southern part of Florida and Texas there are the regular rainy and dry seasons of hot countries.

IV. Forests.—Much of the sandy region between the hill country and the sea is covered with forests of *pitch pine*.

The *live-oak*, the most valuable kind of oak, is found in Florida. Along the coasts are groves of palmetto; and the magnolia and catalpa trees are common everywhere. Among the mountains are forests like those of the north.

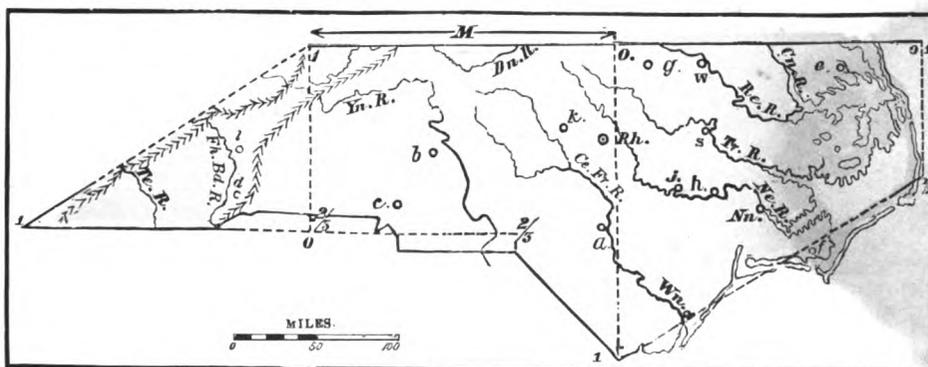
North Carolina surpasses all the other States in the production of *naval stores*, (pitch, tar and resin,) and the State has a great trade in pine lumber.

V. The Soil is generally fertile. The higher lands, or *uplands*, produce cotton, corn, and sweet potatoes.

The low lands produce rice, tobacco, *Sea-Island cotton*, and, on the Gulf coast, sugar cane.

In the most southern portions of the country, oranges, lemons, figs, and bananas, grow in abundance; and in Texas, coffee and indigo are somewhat cultivated.

NORTH CAROLINA.



Length of Measure, 170 miles.

I. Form.—North Carolina has its greatest extent from east to west, and is broadest near the centre. The greatest length is very nearly three times the greatest breadth.

To DRAW THIS STATE.—1. Draw a horizontal line and bisect it, calling one half M.

2. At each end, and at the middle point, draw vertical lines downward. Make the middle one a *very little* more than *one M* in length; the left, *two-thirds* of M, and the right nearly *one half* of M.

3. At the bottom of the left vertical line draw a second horizontal line. Make it nearly *one M* at the left of the vertical, and *two-thirds M* at the right.

4. Connect the ends of these lines and draw the boundaries of the State.

II. Objects to be placed upon the map drawn.

Mountains.	Rivers.	Cities.
Blue Ridge.	Neuse.	RALEIGH.
Black Mts.	C. Fear.	Wilmington.
	Roanoke.	Newbern.
	Tar.	Weldon. (w)

III. NOTE.—The *Black Mts.* are the highest in the Appalachian system. North Carolina raises more sweet potatoes than any other State. (Rice, see p. 55.)

IV. Location of Cities.—North Carolina has no large cities.

Raleigh, a small city, and capital of North Carolina, is situated a few miles west of the Neuse river, near the border of the hill country.

Wilmington, the largest city of North Carolina, is situated in the low coast lands. It is on the left bank of the Cape Fear river, just below the entrance of its eastern branch.

Wilmington is connected by railroad with the large cities north of it. It has considerable commerce, and carries on a large amount of manufacturing by steam power.

Newbern, second seaport of the State, is situated on the right bank of the Neuse river, about 50 miles from its mouth.

EXERCISE.

Describe the form of North Carolina. What is its greatest length? Its greatest breadth?

Draw an outline of the State, naming its boundaries.

What is the surface of this State? Locate and describe the position of the Blue Ridge. Black Mts.

Trace the boundary of the hill country. Draw and describe the course of each river named above.

Locate and describe the position of the Capital of the State. The largest town. The second in size. What can you say of the size of the cities of North Carolina?

Locate in addition to the above:

NORTH CAROLINA CLASSES.	Rivers.	Towns and Cities.
	Chowan.	a Fayetteville. g Warrenton.
	Dan.	b Salisbury. h Kinston.
	Yadkin.	c Charlotte. i Tarboro.
	Tennessee.	d Hendersonville. j Goldsboro.
	French Broad.	e Elizabeth City. k Chapel Hill.
		f Beaufort. l Asheville.

SOUTH CAROLINA.

I. Form.—South Carolina is a trapezium, having its northeast and southwest sides nearly parallel. The State is longest from northwest to southeast.

To DRAW SOUTH CAROLINA.—1. Draw a horizontal line and bisect it. Bisect each half, calling one part M.

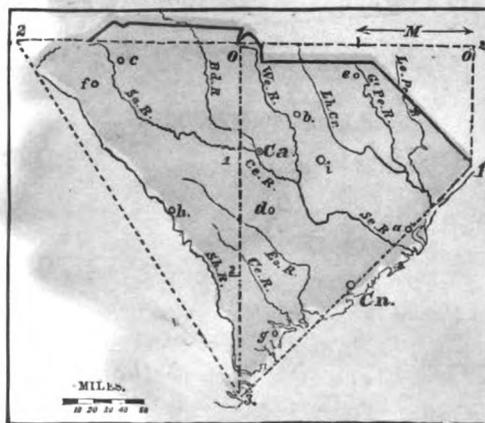
2. At the middle and at the east end draw vertical lines, making the right, *one M* in length; the left, *three M*. Connect the ends of the lines drawn.

3. Connect the right-hand point in the horizontal line, to the end of the right vertical, and draw the boundaries of the State.

II. Objects to be placed upon the map:

Rivers.
Great Pedee.
Santee.
Wateree.
Congaree.

Cities.
COLUMBIA.
Charleston.



Length of Measure, 70 miles.

III. NOTE.—South Carolina produces more rice than all the other States taken together.

IV. Location of Cities.—*Charleston* is the only large city of South Carolina. It is situated on a fine harbor near the middle of the coast line.

Charleston has an extensive commerce, both foreign and coastwise. It is a great rice and cotton market, and is the largest city of the South-Atlantic States.

Columbia, capital of South Carolina, is a small city situated on the left bank of the Congaree river, at the head of steamboat navigation.

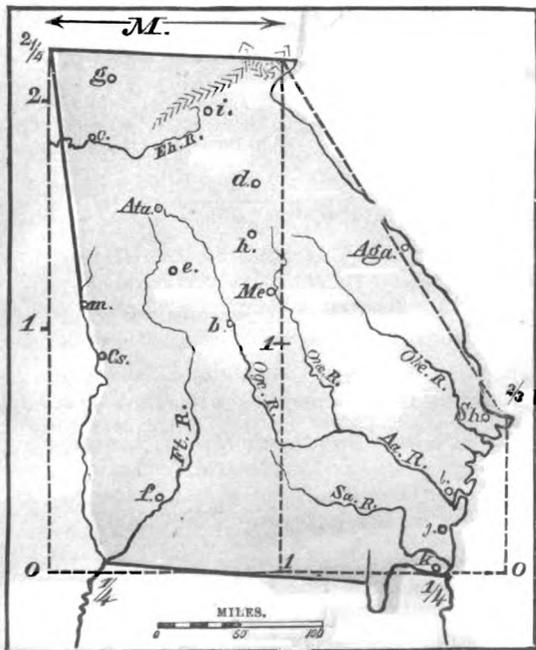
EXERCISE.

Describe the form of South Carolina. What is the extent of the State from northwest to southeast? From northeast to southwest? Draw an outline of South Carolina, naming its boundaries.

What is the surface of South Carolina? Trace the boundary between the uplands and the low coast region. Draw and describe the rivers named above. Locate and describe the position of the capital of the State. Its largest city.

SOUTH CAROLINA CLASSES.	Locate, in addition to the above:					
	Rivers.			Towns.		
	Little Pedee.	Broad.	a Georgetown.	d Orangeburg.	g Beaufort.	
	Lynch.	Edisto.	b Camden.	e Cheraw.	h Hamburg.	
	Saluda.	Combahee.	e Greenville.	f Pendleton.	i Sumterville.	

GEORGIA.



Length of Measure, 135 miles.

I. Form.

—Georgia is longest from north to south. The southern part of the State is nearly one and one half times the breadth of the northern end.

TO DRAW THE STATE.—1. Draw a horizontal line and bisect it, calling one part *M*.

2. At the middle point, and at each

end, draw vertical lines upward. Make the two at the left each *two and one-fourth M* in length; the one at the right, *two-thirds M*.

3. Connect the ends of these lines; place a point one-fourth *M* from each end of the lower horizontal line, and draw the boundaries of the State.

II. Objects to be placed upon the map drawn.

Mountains.	Rivers.	Towns.
Blue Ridge.	Ogeechee.	ATLANTA.
	Oconee.	Columbus.
	Chattahoochee.	Milledgeville.
	Ocmulgee.	Augusta.

III. NOTE.—In the mountains of Georgia are the richest gold mines east of the Rocky Mountains. Georgia is the leading State of the South in

manufacturing, and in railroad communication; and is next to North Carolina in the production of sweet potatoes. (Cotton and rice, see page 55.)

IV. Location of Cities.—Georgia has more cities of considerable size than any other State of its section.

Atlanta, capital of Georgia, second in size of its cities, is situated in the northern part of the State, at the junction of a number of railroad lines.

This city is largely engaged both in manufacturing and commerce. Atlanta has nearly doubled its population since 1860.

Savannah, the largest city of the section except Charleston, is situated in the lowlands, near the mouth of the Savannah river.

This city is an important railroad centre, and has also one of the best harbors on the South Atlantic coast. It has an extensive commerce, both foreign and coastwise, exporting large quantities of cotton, rice, lumber, and naval stores.

Augusta, third city of the State, is situated on the Savannah river at the border of the uplands.

There is at this point an abundant supply of water-power, and the city is largely engaged in manufacturing as well as in commerce.

Columbus is situated on the Chattahoochee river. It has large iron-works, cotton manufactories, and woolen mills.

Milledgeville, formerly capital of Georgia, is a small city situated on the right bank of the Oconee river, in the border of the uplands.

This place is well supplied with water-power, and is at the head of navigation of the Oconee; thus it has natural advantages for both manufacturing and commerce.

EXERCISE.

Describe the form of Georgia. What is its extent from north to south? What is its greatest extent from east to west? Draw an outline of the State, naming its boundaries.

What is the surface of Georgia? Trace the boundary of the uplands. Locate and describe the position of the mountains of Georgia. Draw and describe the course of each of the rivers named above. (For the upper course of Chattahoochee river, see map, page 65.)

Locate and describe the position of the capital of Georgia. Its largest city. The second in size. The third. Where is Milledgeville? What can you say of the number and size of the cities of Georgia? Can you give any reason for this? What reason can you give for the importance of Savannah? Why should Savannah export such articles as she does? How can they be collected from the interior of the State? What reason can you give for important towns having grown up where Augusta, Columbus, and Atlanta are situated?

GEORGIA CLASSES.	Locate, in addition to the above:					
	Rivers.			Cities and Towns.		
	Santilla.	Etowah.	b Macon.	e Griffin.	h Madison.	k St. Mary's.
	Flint.	c Rome.	f Newton.	i Dahlonega.	l Darien.	
	d Athens.	g Dalton.	j Brunswick.	m West Point.		

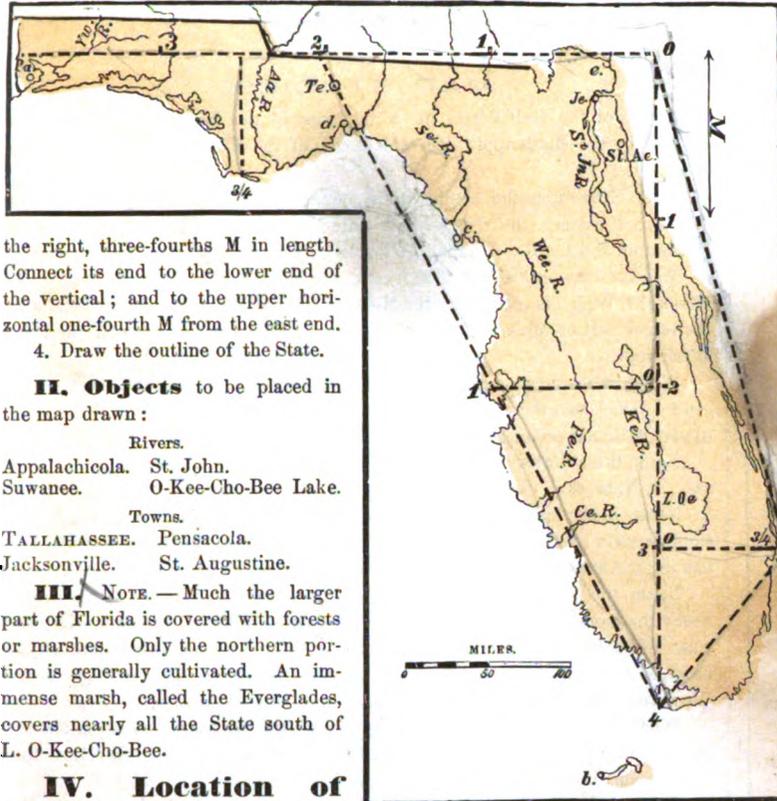
FLORIDA.

I. Form.—Florida is a long and narrow peninsula, extending southward from the main body of our country. The body of the State is about three times as long as its average width; and from this a narrow band extends westward along the Gulf coast. The greatest extent of the State from east to west is very nearly equal to that from north to south.

TO DRAW FLORIDA.—1. Draw a vertical line, dividing it into four equal parts. Call one part *M*.

2. At the upper end draw a horizontal line of equal length, and divide it in the same manner, connecting its middle point to the lower end of the vertical.

3. From the lower point of division in the vertical line, draw a horizontal



the right, three-fourths M in length. Connect its end to the lower end of the vertical; and to the upper horizontal one-fourth M from the east end.

4. Draw the outline of the State.

II. Objects to be placed in the map drawn :

- Rivers.
Appalachicola. St. John.
Suwanee. O-Kee-Cho-Bee Lake.
- Towns.
Tallahassee. Pensacola.
Jacksonville. St. Augustine.

III. NOTE.—Much the larger part of Florida is covered with forests or marshes. Only the northern portion is generally cultivated. An immense marsh, called the Everglades, covers nearly all the State south of L. O-Kee-Cho-Bee.

IV. Location of Cities.—Florida contains

no large cities. *Jacksonville*, on the St. John's river, is the largest.

Tallahassee, capital of the State, is a small town situated in the northern part of the State, nearly midway between the Suwanee and Apalachicola rivers.

Pensacola, the second town, is situated in the extreme western part of the State, on Pensacola bay.

St. Augustine, the oldest town in the United States, is situated on the eastern coast south of the mouth of St. John's river.

EXERCISE.

Describe the form of Florida. What is its greatest length from north to south? What is the breadth of the peninsula in the middle part?

Draw the outline of Florida, naming the capes and bays named on the map of the United States. What islands (see map of U. S.) south of Florida? Locate them.

Draw and describe the course of each of the rivers named above. Locate and describe the position of L. O-Kee-Cho-Bee.

Locate and describe the position of Tallahassee, Pensacola, St. Augustine. What can you say of the size of the towns of Florida? Judging from this, what would you conclude in regard to its commerce and manufactures?

- Locate, in addition to the above:
- | | | | |
|----------|-----------------|---------------|---------------|
| CLASSES. | Rivers. | Towns. | |
| | Caloosahatchee. | Kissinee. | d St. Mark's. |
| | Pease. | Yellow Water. | e Fernandina. |
| | Withlacoochee. | b Key West. | c Cedar Keys. |

(REVIEW *South-Atlantic States* like *Middle Atlantic States* (See page 70.)

ALABAMA.

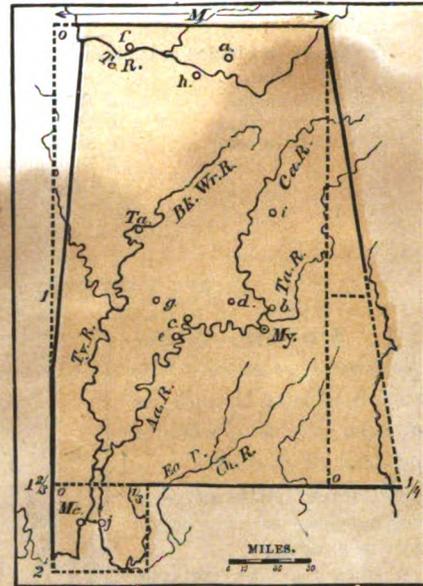
I. Form.—Alabama is quite regular in form. The body of the State has its northern and southern sides parallel, the

southern being about one third the longer. The extreme length of the State is about double its average breadth.

To DRAW ALABAMA.—1. Draw an oblong, making its vertical sides one and two-thirds times the length of the horizontal sides.

2. Trisect the lower side, and add a square on the left third.

3. Extend the lower side to the right one-fourth its length; connect it to the upper, and draw the boundaries of the State.



Length of Measure, 170 miles.

II. Objects to be placed upon the map.

- | | | |
|-------------|---|---|
| Mountains. | Rivers. | Cities. |
| Cumberland. | Alabama.
Tombigby.
Black Warrior. | Coosa.
Tennessee.
Montgomery.
Mobile.
Tuscaloosa. |

III. NOTE.—Alabama is the third State of the Union in the production of cotton, and the third of the Gulf States in corn. In the middle and northern part of Alabama are rich mines of coal and iron, and quarries of fine marble. This State is noted for its manufacture of *cotton-gins*.

IV. Location of Cities.—Alabama contains but one large city.

Mobile, the largest city of the Gulf States except New Orleans, is situated on the west bank of Mobile river, immediately above its mouth.

This city is, next to New Orleans, the greatest cotton market in the United States. By means of the rivers and railroads leading to this point, Mobile collects not only the cotton of Alabama, but also much of that produced in Eastern Mississippi.

Montgomery, capital of Alabama, and second city in size, is situated on the left bank of the Alabama river, a little below the junction of the Coosa and Tallapoosa.

This is an important cotton market for the interior of the State. The Alabama R. is navigable for large steamboats throughout its entire length. *Selma* and *Huntsville* are next to Montgomery in population.

Tuscaloosa, former capital of Alabama, is situated in the western part of the State, on the middle course of the Black Warrior river.

Though a small town, Tuscaloosa has a considerable amount of commerce. Cotton is collected here from the surrounding country, to be shipped to Mobile.

EXERCISE.

Describe the form of Alabama. What is the greatest extent of the State from east to west? From north to south? Draw an outline of Alabama, naming its boundaries.

What is the surface of Alabama? Trace the boundary of its uplands. Locate and describe the position of the Cumberland Mts.

Draw and describe the course of the rivers named above. Locate and describe the position of the capital of Alabama. Its largest city. The former

capital. What reasons can you give for Mobile having become so large and important a city?

Locate, in addition to the above:

ALABAMA CLASSES.	Rivers.	Cities and Towns.	
	Escambia.	a Huntsville.	f Florence.
	Conecuh.	b Wetumpka.	g Marion.
	Tallapoosa.	c Selma.	h Decatur.
		d Kingston.	i Talladega.
	e Cahawba.	j Blakely.	

MISSISSIPPI.

I. Form.—Mississippi greatly resembles Alabama in form; though its southern extension is larger than that of Alabama.

To DRAW MISSISSIPPI.—1. Draw an oblong, making its length double its breadth.

2. Bisect the sides, the lower end, and the upper half of the left side.

3. Trisect the upper end, and the lower half of the left side, and draw the outline of the State.

II. Objects to be placed within the map:

Rivers.	Towns.
Yazoo.	JACKSON.
Pearl.	Vicksburg. (a)
Pascagoula.	Natchez.

III. NOTE.—(Production of cotton and rice, see page 55.)

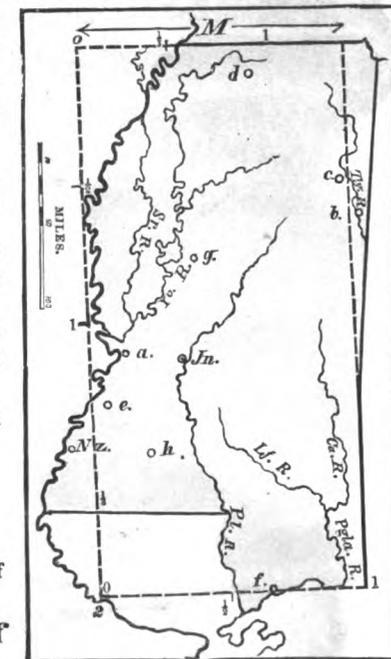
IV. Location of Cities.—Mississippi has no large cities.

Mississippi has no large river, nor railroad line leading from the interior to its own coast. Thus the immense amount of cotton produced in the State is mainly collected by numerous small towns along the rivers and railroads leading to New Orleans and Mobile, and sent to those cities for shipment to distant ports.

Jackson, capital of Mississippi, is a small town situated in the central part of the State, on the right bank of the Pearl river.

Vicksburg, the largest city of the State, is situated at the great bend of the Mississippi below the mouth of the Yazoo.

Natchez, second in population and commercial importance, is situated in the southern part, on the Mississippi river.



Length of Measure, 165 miles.

EXERCISE.

Describe the form of Mississippi. What is the greatest length of the State? What is its breadth in the middle part? Draw an outline of Mississippi, naming its boundaries. What is the surface of Mississippi? Which part of the State is highest? Draw and describe the course of the rivers named above. Locate and describe the position of the capital of Mississippi. Its largest town. Its principal seaport.

What can you say of the size of the cities of Mississippi? How is it that the purchase and export of so much cotton as is raised in this State does not give rise to a great commercial city on its coast?

MISSISSIPPI CLASSES.	Rivers.	Towns and Cities.	
	Sunflower.	b Columbus.	e Port Gibson.
	Leaf.	c Aberdeen.	f Shieldsboro.
	Chickasawha.	d Holly Springs.	g Lexington.
	Tombigby.	h Brookhaven.	

STATES BETWEEN THE MISSISSIPPI AND THE ROCKY MOUNTAINS.

MAP STUDIES.

Which of the Gulf States lies wholly west of the Mississippi? Which is crossed by the Mississippi? On which side of the Mississippi does Louisiana mainly lie?

What river forms the southwestern boundary of Texas? Name, beginning at the most eastern, the rivers which enter the Gulf of Mexico between the Mississippi and the Rio Grande. What large tributary has the Rio Grande?

Which of the central States lie west of the Mississippi? Which lie west of the Missouri? Which is crossed by the Missouri? On which side of the river does the larger part of Missouri lie? Which States lie between the Missouri and the Mississippi?

Which is the most southern of the Central States? Which the most northern? Which two the most western? Which are (see map, page 65) the most eastern? Bound each State west of the Mississippi, and name its capital.

Name these States in the order of their size. *Ans.* 1. Minnesota. 2. Kansas. 3. Nebraska. 4. Missouri. 5. Iowa. 6. Arkansas.

Name, in the order of their size, the three great tributaries which the Mississippi receives from the Rocky Mountain country. Describe the course of each, naming the States which are separated, and those which are crossed by it.

Name the largest two tributaries of the Arkansas. Where do they rise? Name the largest two tributaries of the Missouri. Where does each rise, and what State does it cross? What tributary of the Missouri forms part of the northern boundary of Nebraska? In what direction do all these streams flow? Why should that be the case?

What do you notice about the direction of the tributaries which enter the Missouri on its left bank? Why should this be the case? In what direction does the Missouri itself flow?

Where is the Yellowstone river? How does it compare in length with the part of the Missouri above its mouth? How do the tributaries which the Missouri receives from the north compare in length with those it receives from the west?

What are the largest western tributaries of the Mississippi above the Missouri? Describe the course of each. Where is the source of the Mississippi?

Commence at the source of the Mississippi, and name all its larger tributaries (all which are upon the opposite map); first those entering on the right bank, then those on the left. Name in the same manner the tributaries of the Missouri.

What is the height of land (see Text, page 77)? What river rises near the source of the Mississippi and flows northward? Into what do the waters of this river (see map of North America) finally flow?

What represents the slope or descent (see page 15) from the higher part of a plain or plateau to lower lands?

How far eastward does the high plateau at the foot of the Rocky Mts. extend? What is the general surface (see text, page 77) of all these States?

What great city near the mouth of the Mississippi? What and where is the capital of Louisiana? What city between Baton Rouge and New Orleans? What and where is the capital of Arkansas? Where is Camden? What and where is the capital of Missouri? What great city near the mouth of the Missouri? Where is St. Joseph?

What and where is the capital of Iowa? Where is Dubuque? Davenport? What and where is the capital of Minnesota? Where is Minneapolis? Winona?

Begin at New Orleans, and name in regular order all cities which you have learned on either bank of the Mississippi.

What and where is the capital of Kansas? Of Nebraska? Where is Leavenworth? Nebraska City? What and where is the capital of Texas? Where is San Antonio de Bexar? Galveston?

How, and in what directions would you sail from Galveston to Topeka? From St. Paul to Omaha? From Des Moines to Little Rock? From Austin to Jefferson City?

Prepare a table of the States between the Mississippi and Rocky Mts., showing the principal rivers, the capital, and the cities of each which are named above.

¹ Ne-o-brah'-ra.

² Bat'-on Roozh'.

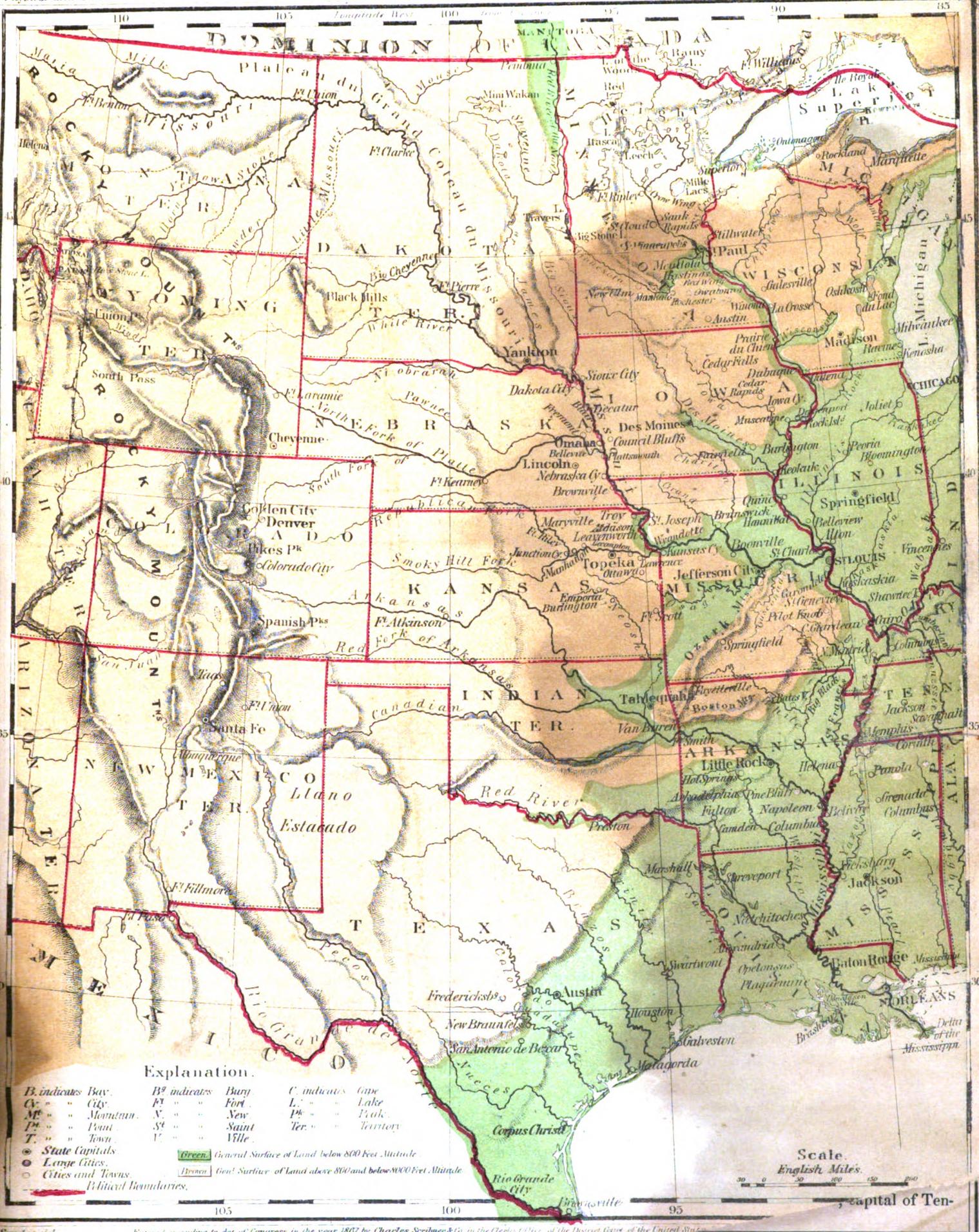
³ Du-buke'.

UNITED STATES.

By A. Guyot

Western Part.

Physical and Political.



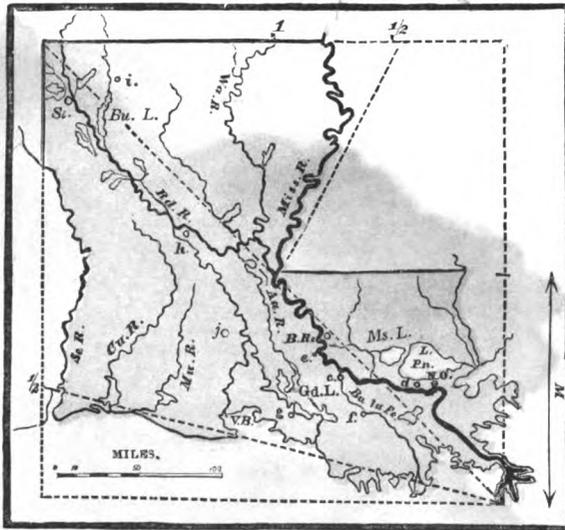
Entered according to Act of Congress in the year 1867 by Charles Scribner & Co. in the Clerk's Office of the District Court of the United States.

LOUISIANA.

I. Form.

—*Louisiana* is quite irregular in form; but its greatest extent east and west is about equal to that north and south.

To DRAW LOUISIANA.—1. Draw a square, and bisect the right, the left, and the upper side.



Length of Measure, 140 miles.

2. Bisect

the *right half* of the upper side, and the *lower half* of the left side. Connect the points as in the diagram, and draw the boundaries of the State.

II. Objects to be placed upon the map.

Rivers.		Cities.
Mississippi.	Atchafalaya.	NEW ORLEANS.
Red.	Bayou la Fourche.	Baton Rouge.
Washita.	Pontchartrain L.	Shreveport.

III. NOTE.—(Production of sugar, cotton, and rice, see page 71, V.)

IV. Location of Cities.—*New Orleans*, capital of the State, is the only large city of Louisiana, and the great sugar market of the United States. (Location, see page 57.)

Baton Rouge is situated on the left bank of the Mississippi river, nearly due west from the northern shore of Lake Pontchartrain. It is next to New Orleans in population.

This town is situated on the first high banks or bluffs which are found on ascending the river. Below this the river banks are in general so low, that banks of earth, called *levees*, are built upon them to prevent the river from overflowing in time of high water.

Shreveport is situated on the Red river. Considerable quantities of cotton, and large numbers of Texan cattle, are shipped here for New Orleans.

EXERCISE.

Describe the form of Louisiana.

What is its greatest extent from east to west? From north to south?

What is the surface (see Map, p. 75) of Louisiana?

Draw and describe the course of the streams named above.

Locate and describe the position of L. Pontchartrain.

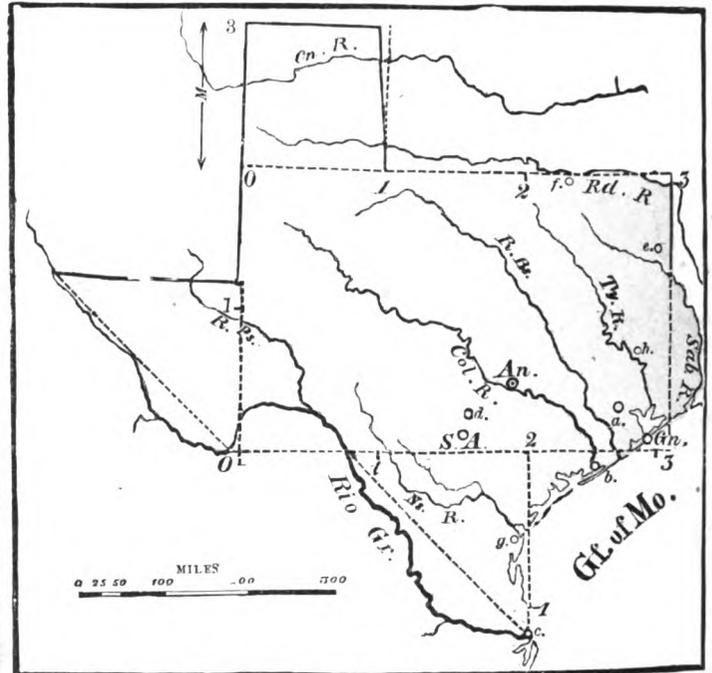
What can you say of the size of the cities of Louisiana?

Locate and describe the position of New Orleans. Donaldsonville. The capital of the State.

Locate, in addition to the above:

M) LOUISIANA CLASSES.	Lakes.	Rivers.	Towns.		
	Grand. Maurepas. D'Arbonne.	Mermentau. Calcasieu.	c Donaldsonville. d Carrollton. g Franklin.	e Plaquemine. f Thibodeaux. j Opelousas.	h Alexandria. i Minden.

TEXAS.



Length of Measure, 170 miles.

I. Form.—Texas is very irregular in form. The body of the State is an oblong—longest from east to west—with a square extension northward; and a triangular one westward and southward.

To DRAW TEXAS.—1. Draw an oblong, making the vertical sides *two-thirds* the length of the horizontal. *Trisect* each side, and *bisect* the left end.

2. On the *left third* of the upper side draw a *square*.

3. On the *lower half* of the left end, and on the *middle third* of the lower side, draw a *half square*, as in the diagram.

4. Draw the boundaries of the State.

II. Objects to be placed upon the map drawn.

Rivers.		Towns.	
Rio Brazos.	Trinity.	AUSTIN.	Galveston.
Colorado.		San Antonio.	

III. NOTE.—Much the larger part of Texas is still unsettled. Only the eastern portions are generally cultivated. Much of the western part of the State consists of dry, barren plains.

IV. Location of Cities.—Texas has no large cities. *Austin*, capital of the State, is a small town situated on the middle course of the Colorado river.

Galveston is the principal commercial city of Texas. It is situated on a long, narrow island in front of a fine bay which is at the mouth of Trinity river.

This bay forms the best harbor of the State, and is one of the best on the Gulf coast. Galveston is the largest city in the State.

San Antonio, the largest town of the interior, is situated southwest of Austin, midway between the Colorado and Nueces rivers.

EXERCISE.

Describe the form of Texas. What is its greatest extent from east to west? From north to south?

Draw an outline of the State, naming its boundaries.

What is the surface of Texas? (See Map, page 75.) Trace the eastern boundary of its highlands.

Draw and describe the course of the streams named above.
 Locate and describe the position of the capital of Texas. Its principal commercial city. The largest city of the interior.
 Why should Galveston have become more important than the other coast towns?

Locate in addition to the above :

TEXAS CLASSES.	Rivers.	Cities and Towns.	
	Canadian.	a Houston.	e Marshall.
	Neuces.	b Matagorda	f Preston.
	Pecos.	c Brownsville.	g Corpus Christi.
		d New Braunfels.	h Swartwout.

(REVIEW *Gulf States* like Middle Atlantic States (See page 70.)

NATURE OF THE CENTRAL STATES.

I. Position.—These States lie in the interior of the United States, extending from the western base of the Appalachian Mts. nearly to the base of the Rocky Mts.

II. Surface.—*This section* has no high mountains. The Cumberland, in Eastern Tennessee, and the Ozark and Boston Mts., between the Missouri and Arkansas rivers, are the only ranges, and these are quite low.

The surface generally is either level or gently rolling, except in Minnesota, where it becomes quite rough. From the Appalachian mountains the land descends very gradually to the Mississippi, then ascends to the foot of the Rocky Mts.

Both the descent and the ascent are so gentle and uniform, that in travelling from the Appalachian to the Rocky Mts. one would scarcely discover that the land slopes at all.

A broad, low swell extends from the source of the Mississippi, across Wisconsin, eastern Illinois, northern Indiana, and Ohio, nearly parallel with the shore of the lakes. This forms the water-shed between the tributaries of the Mississippi and Ohio, and the streams flowing into the great lakes.

Upon this swell are groups of low sand-hills, among which are many small and beautiful lakes. *The Height of Land* in Minnesota is the commencement of the water-shed between the northern and southern slopes of the Great Central Plain of North America. (See page 28.)

III. Waters.—Nearly the whole Mississippi system of rivers lies within this section. Three of the Great Lakes border it, while Lake Michigan lies wholly within the section.

Every State is bordered either by one of the lakes, or by the Mississippi, Missouri, or Ohio river; and most have these great waters on two opposite sides.

Besides this, the larger tributaries entering the great rivers or lakes, are generally navigable at least to the centre of the States they cross, and many furnish great water-power. Thus no States could have a better arrangement of waters than these.

IV. Forests of *white pine*, yielding most excellent lumber, cover the northern half of Minnesota, Wisconsin, and Michigan. Forests of oak, maple, elm, walnut, and other valuable trees, are abundant in all the States east of the Mississippi.

Illinois and *Wisconsin* have a great amount of prairie land. *The States west* of the Mississippi, except Minnesota, are mostly prairie land. There are few forests except on the borders of the rivers, and in the Ozark mountain region.

V. The Soil is very fertile throughout the section as far westward as the middle of Kansas and Nebraska. There

the high, dry plains bordering the Rocky Mountains commence, and the soil is less productive.

This section is the great *wheat* and *corn* field of the country. (See page 56.)

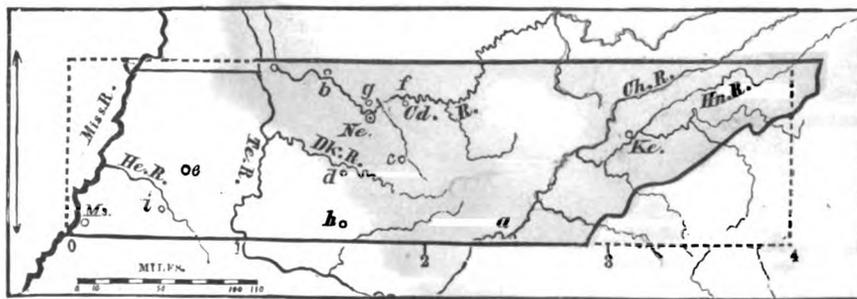
Immense quantities of *tobacco* are raised in Kentucky, and a considerable amount in Tennessee, Ohio, and Missouri. Tennessee and Arkansas also raise considerable *cotton*.

Only a small proportion of the land is as yet cultivated. Much of the country is devoted to grazing, and a great amount of live stock, wool, beef, and pork is produced in nearly all the States.

VI. These States are remarkable for the rapid growth of their towns. Places along the rivers and lakes which but a few years ago were little settlements surrounded by forests, are now large cities, extensively engaged in commerce or manufacturing.

Not only are the rivers and lakes employed as means for commerce, but several canals connect the navigable streams of the Mississippi system with those flowing into the lakes. Railroads extending north and south, east and west, connect the Mississippi cities with the lake cities, and both with all the great Atlantic cities.

TENNESSEE.



Length of Measure, 110 miles.

I. Form.—Tennessee is one of the most regular of the States in outline. Its form is a trapezoid. The northern and southern sides being parallel. The greatest length of the State is about four times its breadth.

TO DRAW TENNESSEE.—1. Draw an oblong, making the horizontal sides *four times* the length of the vertical.

2. Place points in these sides, as in the figure, and draw the outlines of the State.

II. Objects to be placed upon the map drawn.

	Rivers.	Towns.
Cumberland Mts.	Tennessee.	Memphis. NASHVILLE.
	Cumberland.	Knoxville.

III. NOTE.—Tennessee is next to Kentucky and Virginia in the amount of tobacco raised, and is one of the leading corn-growing States.

IV. Location of Cities.—*Nashville*, capital of Ten-

nessee, is situated in the northern portion of the State, on the left bank of the Cumberland river.

This place is at the head of steamboat navigation of the Cumberland. It is the second city of the State in size, and is a place of great business.

Memphis, largest city of Tennessee, is situated in the southwestern corner of the State, on the Mississippi river.

Several railroads enter Memphis, and, with the river, give the city every advantage for commerce. It is an important cotton depot.

Knoxville, the principal town of East Tennessee, is situated on the *Holston* river, a tributary of the Tennessee, east of the Cumberland Mts.

The river is navigable to this point for steamers in all parts of the year.

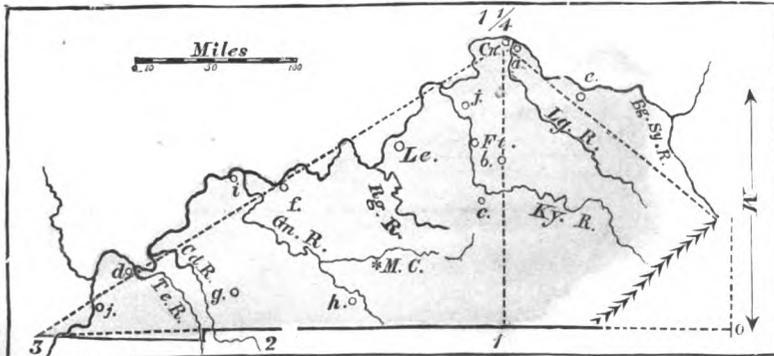
EXERCISE.

Describe the form of Tennessee. What is the extent of the State from east to west? From north to south? Draw the outline of the State, naming its boundaries. What is the surface (see map, page 65) of Tennessee? Locate the Cumberland Mts. Trace the western boundary of the highlands of the State.

Draw and describe the course of the rivers named above. Locate and describe the position of the capital of the State. Its largest city. The principal city of Eastern Tennessee. Give reasons for the growth of these cities.

TENNESSEE CLASSES.	Locate, in addition to the above:		
	Rivers.	Cities and Towns.	
	Hatch-ee.	a Chattanooga.	d Columbia.
	Duck.	b Clarksville.	e Jackson.
	Clinch.	c Murfreesboro.	f Lebanon.
Holston.		g Edgefield.	
		h Winchester.	
		i Bolivar.	

KENTUCKY.



Length of Measure, 145 miles.

I. Form.—Kentucky is a trapezium, longest from east to west. Its breadth in the eastern portion is about one-third its greatest length.

To DRAW KENTUCKY.—1. Draw a horizontal line, and trisect it, marking one part M.

2. At the right end, and right point of division, draw vertical lines upward, making the one to the right *one-half M* in length; the other *one and one-third M*. Connect the ends of these lines, and draw the boundaries of the State.

II. Objects to be placed upon the map.

Rivers.	Cities.
Tennessee.	Licking.
Cumberland.	Kentucky.
	FRANKFORT.
	Louisville.
	Covington.

III. NOTE.—Kentucky is the first tobacco-growing State of the Union, and produces largely both corn and wheat.

IV. Location of Cities.—(*Louisville*, largest city, see page 57.)

Covington, second city of Kentucky, is situated on the Ohio river, at the mouth of the Licking.

This city is directly opposite Cincinnati, with which it is connected by a fine suspension bridge. Pork packing is an important branch of business here as well as in Cincinnati.

Frankfort, capital of Kentucky, is situated in the northern part of the State, on the right bank of the Kentucky river.

Though the town is not large, it has a considerable amount of trade both by the river and by railroad.

EXERCISE.

Describe the form of Kentucky. What is the greatest extent of the State from east to west? The breadth of the eastern portion? Draw an outline of the State, naming its boundaries.

What is the surface of Kentucky? Draw and describe the course of the rivers named above. Locate and describe the position of the capital of the State. Its largest city. The second in size.

What reason can you give for the growth of Louisville?

KENTUCKY CLASSES.	Locate, in addition to the above:			
	Green.	a Newport.	d Paducah.	g Hopkinsville.
	Rolling.	b Lexington.	e Maysville.	h Bowling Green.
	Big Sandy.	c Danville.	f Owensboro.	i Henderson.
				j Columbus.
	Mammoth Cave.	Learn something about each of these towns.		

OHIO.

I. Form.—Ohio, though irregular in outline, has its length and breadth nearly equal.

To DRAW OHIO.—1. Draw a square; trisect the upper and the right-hand side; bisect the lower; and draw the outline of the State.

II. Objects to be placed upon the map drawn:

Rivers.
Muskingum.
Scioto.
Maumee.
Miami.

Cities.

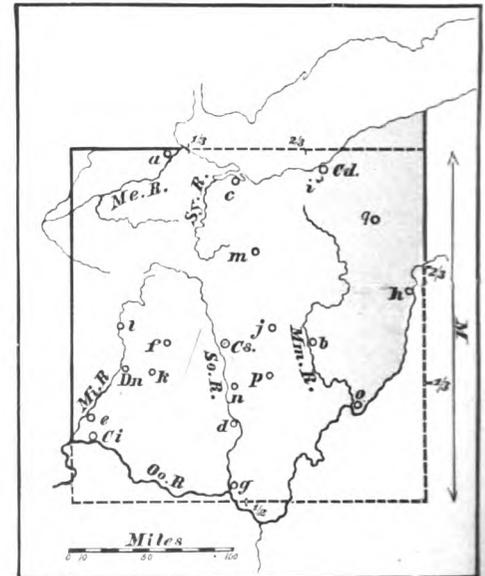
COLUMBUS.	Cincinnati.	Cleveland.	Dayton.
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III. NOTE.—Ohio produces more wool than any other State of the Union, and is among the first in the production of cheese and live stock. (Manufacturing, and production of grain, see page 56.) This State possesses very rich mines of iron and bituminous coal.

IV. Location of Cities.—*Columbus*, capital of Ohio, is situated very near the centre of the State, on the left bank of the Scioto river.

This city is surrounded by a very fertile country, and is one of the leading cities of the State.

Cincinnati, one of our largest cities, is situated in the southwest corner of Ohio, on the Ohio river. It has an immense commerce, both by the river and by railroads, which



Length of Measure, 220 miles.

connect it with every part of the Union. Many river steam-boats are built here.

The Miami canal connects Cincinnati with Lake Erie at the mouth of the Maumee river. Materials of every kind are most easily obtained, and Cincinnati is an important manufacturing city as well as a great commercial centre.

Cleveland, second city of Ohio, is situated in the eastern part of the State, on the shore of Lake Erie. It is an important commercial and manufacturing town, and the building of vessels is extensively carried on.

Cleveland is connected by canal with the Ohio, in Western Pennsylvania, and also at the mouth of the Scioto river. These canals, and numerous railroads, give it the means of collecting the produce for shipment, and materials for manufacture, from all parts of Ohio and the surrounding States.

Dayton is situated in the southern part, on the left bank of the Miami river.

Dayton, in proportion to its size, is one of the leading manufacturing cities of the West. It is an important railroad centre, and is also upon the line of the Miami canal. Thus it has great opportunities for trade.

EXERCISE.

Describe the form of Ohio. What is its extent across the centre of the State? Draw an outline of Ohio, naming its boundaries. What is the surface of Ohio? To what river-systems do its streams belong? Trace the water-shed (see map, page 65) which separates the two systems in this State.

Draw and describe the course of the streams named above. Locate and describe the position of the capital of the State. Its largest city. The second in size. The third. Give a reason for the importance of each of these cities.

- | | | | | |
|---------------|-----------------------------------|------------------------|-----------------------|--------------------|
| OHIO CLASSES. | Locate, in addition to the above: | | | |
| | Rivers. | Cities and Towns. | | |
| | Sandusky. | <i>a</i> Toledo. | <i>e</i> Hamilton. | <i>i</i> Brooklyn. |
| | | <i>b</i> Zanesville. | <i>f</i> Springfield. | <i>j</i> Newark. |
| | <i>c</i> Sandusky. | <i>g</i> Portsmouth. | <i>k</i> Xenia. | |
| | <i>d</i> Chillicothe. | <i>h</i> Steubenville. | <i>l</i> Piqua. | |
| | | | <i>m</i> Mansfield. | |
| | | | <i>n</i> Circleville. | |
| | | | <i>o</i> Marietta. | |
| | | | <i>p</i> Lancaster. | |
| | | | <i>q</i> Akron. | |
- Learn something about each of these towns.

INDIANA.

I. Form.—Indiana is quite regular in form. It is of oblong shape, its length being about double its breadth.

To DRAW INDIANA.—1. Draw an oblong, making the vertical sides double the length of the horizontal.

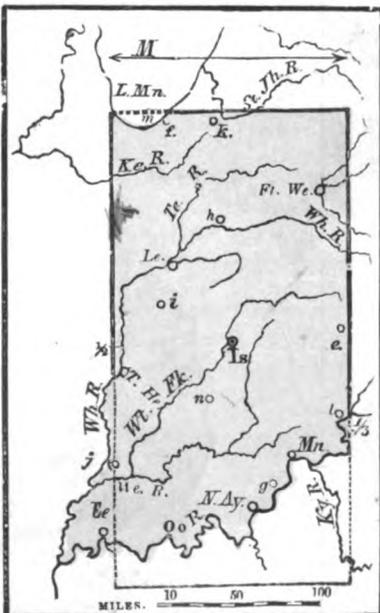
2. Bisect the left side, trisect the right, and draw the boundaries of the State.

II. Objects to be placed upon the map drawn:

- | | |
|---------|---------------|
| Rivers. | Cities. |
| Wabash. | INDIANAPOLIS. |
| White. | Evansville. |
| | Terre Haute. |

III. NOTE.—(Production of wheat and corn, see page 56.) Extensive and rich coal mines are found in the southern part of the State.

IV. Location of Cities.—*Indianapolis*, capital and largest city of Indiana, is situated near the centre of the State, on the west fork of the White river.



Length of Measure, 145 miles.

Railroads connect this place to all the leading cities of the West, and afford easy communication with New York, Philadelphia, and Baltimore. The city has extensive manufactures, and a considerable trade.

Next to Indianapolis the leading cities of the State are *Evansville*, *Fort Wayne*, and *Terre Haute*. *Evansville* is situated on the Ohio, a few miles below the mouth of Green river.

The situation of this place gives it excellent advantages for commerce, in which it is largely engaged. A large amount of manufacturing is also carried on here.

Fort Wayne is in the northeastern part of the State, at the head of the Maumee river; and *Terre Haute* in the western part, on the Wabash river.

Both these cities are in the midst of a fine agricultural region; and being at the crossing of important lines of railroad, they are the chief centres of trade for the northern section of the State.

EXERCISE.—Describe the form of Indiana. What is the extent of the State from east to west? From north to south? Draw the outline of Indiana, naming its boundaries. What is the surface of Indiana? Which is highest, the eastern or the western part of the State? How do you know this? Draw the rivers named above, describing their course.

Locate and describe the position of the capital of the State. Its principal commercial city. *Evansville*. *Madison*. What advantages has each from its position? Which do you think has the best position? Why?

- | | | | | |
|------------------|-----------------------------------|---------------------------|--------------------------|------------------------|
| INDIANA CLASSES. | Locate, in addition to the above: | | | |
| | Rivers. | Cities and Towns. | | |
| | St. Joseph. | <i>N. Ay.</i> New Albany. | <i>g</i> Jeffersonville. | <i>k</i> South Bend. |
| | Tippecanoe. | <i>Mn.</i> Madison. | <i>h</i> Logansport. | <i>l</i> Lawrenceburg. |
| W. F. of White. | <i>Le.</i> Lafayette. | <i>i</i> Crawfordsville. | <i>m</i> Michigan City. | |
| Kankakee. | <i>e</i> Richmond. | <i>j</i> Vincennes. | <i>n</i> Bloomington. | |
| | <i>f</i> Laporte. | | | |

ILLINOIS.

I. Form.—Illinois is less regular in form than Indiana, but it has very nearly the same proportions. Its greatest length is nearly double the breadth through the centre.

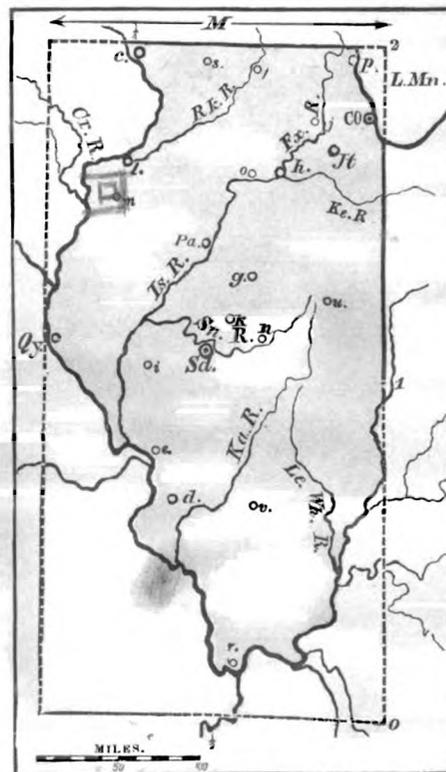
To DRAW ILLINOIS.—1. Draw an oblong, making the vertical sides double the length of the horizontal.

2. Bisect each side and the lower end of the oblong, and draw the boundaries of the State.

II. Objects to be placed upon the map drawn:

- | | |
|-----------|--------------|
| Rivers. | Cities. |
| Rock. | Kaskaskia. |
| Illinois. | |
| | SPRINGFIELD. |
| | Peoria. |
| | Chicago. |
| | Quincy. |

III. NOTE.—(Mining, manufacturing, and production of wheat and corn, see page 56).



Length of Measure, 210 miles.

IV. Location of Cities.—(For *Chicago*, see page 57.) *Springfield*, capital of Illinois, is situated near the central part of the State.

The railroad connecting Chicago with St. Louis passes through Springfield, and also one crossing the State from east to west.

Quincy and *Peoria* are, next to Chicago, the largest cities of Illinois. Quincy is situated on the Mississippi, near the middle of the western boundary of the State.

Peoria is situated on the right bank of the Illinois river, about midway between its mouth and Chicago.

Both these cities are on important railroad lines. The Illinois river is navigable at all seasons to a considerable distance above Peoria, and is connected by canal with Lake Michigan at Chicago.

EXERCISE.

Describe the form of Illinois. What is the extent of the State from north to south? From east to west? Draw the outline of the State, naming its boundaries. What is the surface of Illinois? Which portion of the State is highest? How do you know this? Draw and describe the course of the streams named above. Locate and describe the position of Chicago. Quincy. Peoria. The capital of Illinois.

What reason can you give for Chicago having become so great a city?

ILLINOIS CLASSES.

Locate, in addition to the above:

Rivers.	Cities and Towns.			
Fox.	<i>c</i> Galena.	<i>g</i> Bloomington.	<i>k</i> Lincoln.	<i>o</i> LaSalle.
Kankakee.	<i>d</i> Belleville.	<i>h</i> Ottawa.	<i>l</i> Rock Island.	<i>p</i> Waukegan.
Sangamon.	<i>e</i> Alton.	<i>i</i> Jacksonville.	<i>m</i> Galesburg.	<i>jt</i> Joliet.
Little Wabash.	<i>f</i> Rockford.	<i>j</i> Aurora.	<i>n</i> Decatur.	<i>r</i> Cairo.
	<i>s</i> Freeport.	<i>u</i> Champaign.	<i>v</i> Centralia.	

MICHIGAN.

I. Form.—Michigan, being bordered by three of the great lakes, is very irregular in outline. It consists of two peninsulas enclosed by Lakes Superior, Huron, and Michigan. The southern has its greatest extent from north to south; the northern from east to west.

The greatest extent of the State from east to west is about equal to that from north to south.

To DRAW MICHIGAN.—1. Draw a horizontal line, and bisect it, calling one part *M*.

2. At each end draw vertical lines upward, making the right, two *M* in length; the left, three and two-thirds *M*. Connect the ends.

3. Bisect the third *M* (from the bottom) of the left vertical line, and draw through the middle point a horizontal line, one and one-third *M* on each side of the vertical.

4. Connect the left end to the vertical line, as in the diagram, and draw the boundaries of the State.

II. Objects to be placed upon the map drawn.

Lakes.	Rivers.	Cities.
Superior.	Erie.	Grand.
Michigan.	St. Clair.	LANSING.
Huron.	St. Joseph.	Detroit.
		Grand Rapids.

III. NOTE.—(*Copper mines*, see page 56.) A large part of Michigan is still covered with forests. Only the southern half of the southern peninsula is generally settled. This State is one of the first in the Union in the amount of wool produced.

IV. Location of Cities.—*Lansing*, capital of

Michigan, is a small city, situated in the interior of the State, on the upper course of Grand river.

The river affords fine water-power, and Lansing is quite largely engaged in manufacturing.

Detroit, much the largest city of the State, is situated on a strait or river of the same name, which leads from Lake St. Clair to Lake Erie.

This position makes Detroit the main doorway for the commerce of Michigan. Railroads connect it to all parts of the State which are settled to any extent, and the lakes give it easy access to the copper region.

This is one of the five* leading lake cities.

Grand Rapids, second city of Michigan, is situated in the western part of the State on both sides of the Grand river.

Rapids in the river at this point furnish good water-power. The river is navigable for large steamers from the lake to this point.

EXERCISE.

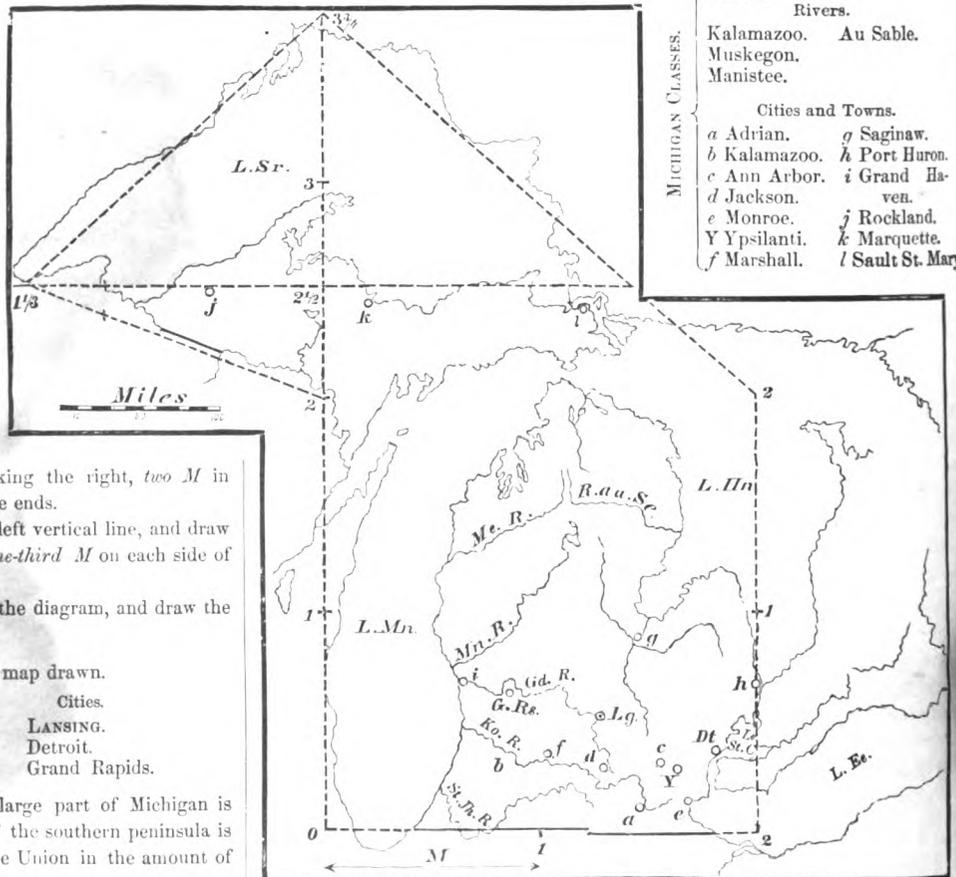
Of what does Michigan consist? Describe its form. Draw an outline of Michigan, naming its boundaries.

What is the surface of Michigan? Which peninsula has the highest land? What portion of the southern peninsula is highest? How do you know this?

Draw and describe the course of the rivers named above. Which of the great lakes bordering Michigan has the most regular form? What is the general form (see diagram) of L. Superior? What is the distance, in a straight line, from the east to the west end? What is the greatest breadth from north to south? Locate and describe the position of the capital of Michigan. Its largest city. The second in size. What reasons can you give for the importance of Detroit? For that of Grand Rapids?

Locate, in addition to the above:

Rivers.	Cities and Towns.	
Kalamazoo.	<i>a</i> Adrian.	<i>g</i> Saginaw.
Muskegon.	<i>b</i> Kalamazoo.	<i>h</i> Port Huron.
Manistee.	<i>c</i> Ann Arbor.	<i>i</i> Grand Ha-
	<i>d</i> Jackson.	ven.
	<i>e</i> Monroe.	<i>j</i> Rockland.
	<i>Y</i> Ypsilanti.	<i>k</i> Marquette.
	<i>f</i> Marshall.	<i>l</i> Sault St. Mary

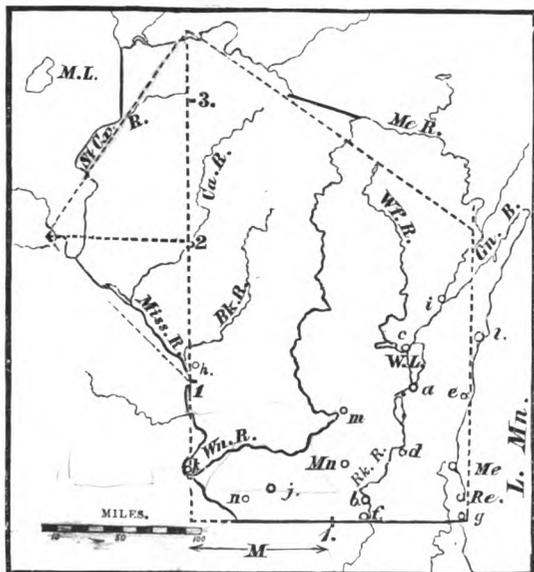


Length of Measure, 135 miles.

* Chicago, Buffalo, Cleveland, Detroit, Milwaukee.

WISCONSIN.

I. Form.
— Wisconsin is quite irregular in outline, being bounded on three sides by lakes and rivers. Its greatest breadth is, however, very nearly equal to its greatest length.



Length of Measure, 90 miles.

TO DRAW WISCONSIN. — 1. Draw a horizontal line, and bisect it, calling one part M.

2. At each end draw vertical lines upward, making the right, two M in length; the left, three M.
3. Trisect the left vertical line, and, at the upper point, draw a horizontal line to the left, one M in length.
4. Connect points (as in the diagram), and draw the outlines of the State.

II. Objects to be placed upon the map drawn :

Rivers.	Cities.
Wisconsin.	Chippewa.
Wolf.	MADISON.
	Milwaukee.
	Racine.

III. NOTE.—Only the southern portion of Wisconsin is generally settled. (Lead mines, see page 56; forests, see page 77.)

IV. Location of Cities.—Madison, capital of Wisconsin, is a beautiful city, situated about midway between L. Michigan and the Mississippi, and nearly opposite the mouth of Wisconsin river.

The country around Madison is one of the richest and most beautiful portions of the State.

Milwaukee, much the largest city of the State, is situated on the shore of Lake Michigan, directly east of Madison.

This city has one of the best harbors of the Great Lakes, and is one of the greatest wheat markets in the world. In some years it exports much more wheat and wheat-flour than Chicago.

Racine, another important commercial town, is situated on the shore south of Milwaukee.

Fond du-Lac, and Oshkosh, on Winnebago Lake, are nearly equal in size, and are, after Milwaukee, the largest cities of the State.

EXERCISE.

Describe the form of Wisconsin. Draw an outline of the State, naming its boundaries. What is its greatest extent north and south? East and west? What is the surface of Wisconsin? Which portion of the State is highest? How do you know this? Draw and describe the course of the rivers named above. Locate and describe the position of the capital of the State. Its largest city. Racine.

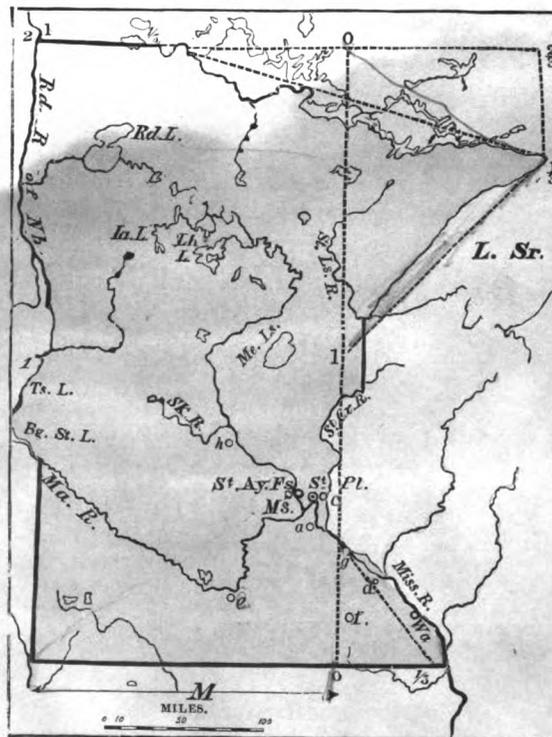
Locate, in addition to the above :

WISCONSIN CLASSES.	Rivers.	Cities and Towns.		
	Rock.	a Fond du Lac.	f Beloit.	k Prairie du Chien.
	Black.	b Janesville.	g Kenosha.	l Manitowoc.
	Winnebago L.	c Oshkosh.	h La Crosse.	m Portage City.
		d Watertown.	i Green Bay.	n Platteville.
		e Sheboygan.	j Mineral Point.	

Which of these towns do you think will become large cities? Why?

MINNESOTA.

I. Form.
— Minnesota is longest from north to south; its greatest length being about double its breadth through the centre.



Length of Measure, 185 miles.

TO DRAW MINNESOTA. — 1. Draw an oblong, calling its horizontal sides M, and making its vertical sides two M.

2. Bisect each side; extend the horizontal sides; connect points (as in the diagram); and draw the boundaries of the State.

II.—Objects to be placed upon the map drawn :

Lakes.	Rivers.	Cities.
Itasca.	Mississippi.	ST. PAUL.
Red.	Minnesota.	Winona.
		Minneapolis.

III. NOTE.—Minnesota is a somewhat new State, and only the southeastern portion is generally settled. (Forests, see page 77.)

IV. Location of Cities.—Minnesota has no very large cities, but there is a considerable number which are rapidly growing.

St. Paul, capital and largest city of the State, is situated on the Mississippi river, just below the mouth of the Minnesota.

Minneapolis, the second city of the State, is on the right bank of the Mississippi, at the falls of St. Anthony.

This point is the head of navigation on the Mississippi. The falls afford immense water-power, and great quantities of lumber and flour are manufactured here.

Winona, which is next in population and importance, is on the Mississippi, not far from the southern boundary of the State.

EXERCISE.

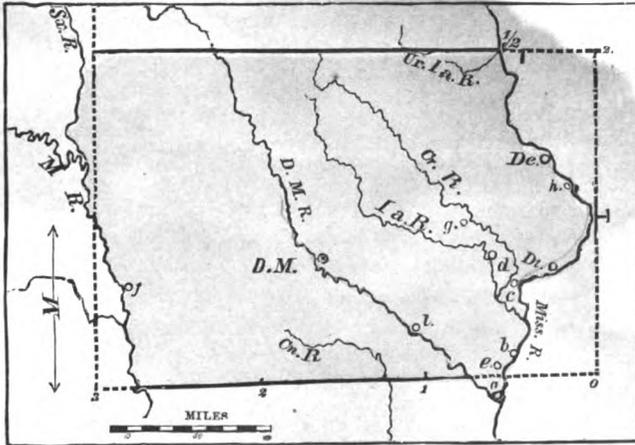
Describe the form of Minnesota. What is its extent from north to south? Its breadth through the centre? Draw an outline of the State, naming its boundaries. What is the surface (see map, page 75) of Minnesota? What portion of the State is highest? Locate and describe the position of Red Lake. Itasca Lake. Draw and describe the course (within the State) of the Mississippi river. Minnesota river.

Locate and describe the position of the capital of the State. Minneapolis. Winona. What advantage has Minneapolis from its position? Why has Minnesota no large cities?

MINNESOTA CLASSES.

Locate, in addition to the above :
 Lakes. Rivers. Cities and Towns.
 Mille Lacs. St. Louis. a Hastings. e Mankato.
 Leech. Sauk. b St. Anthony. f Rochester.
 Big Stone. c Stillwater. g Red Wing.
 Travers. d Wabashaw. h St. Cloud.

IOWA.



Length of Measure, 105 miles.

I. Form.—Iowa, though bounded on opposite sides by rivers, is quite regular in form. It is longest from east to west, its greatest length being about one and a half times its breadth.

To DRAW IOWA.—No directions needed. (See diagram.)

II. Objects to be placed upon the map drawn :

Rivers.	Cities.
Des Moines.	DES MOINES.
Iowa.	Davenport.
	Dubuque.

III. NOTE.—Only the eastern part of Iowa is generally settled. (*Prairie land*, see page 77. *Lead mines*, page 56.)

IV. Location of Cities.—*Des Moines*, capital of Iowa, is a thriving city situated in the interior of the State, on the left bank of Des Moines river.

Davenport and *Dubuque*, the largest cities of the State, are situated on the Mississippi river. The latter is opposite the northern boundary of Illinois; the former opposite the mouth of Rock river.

EXERCISE.

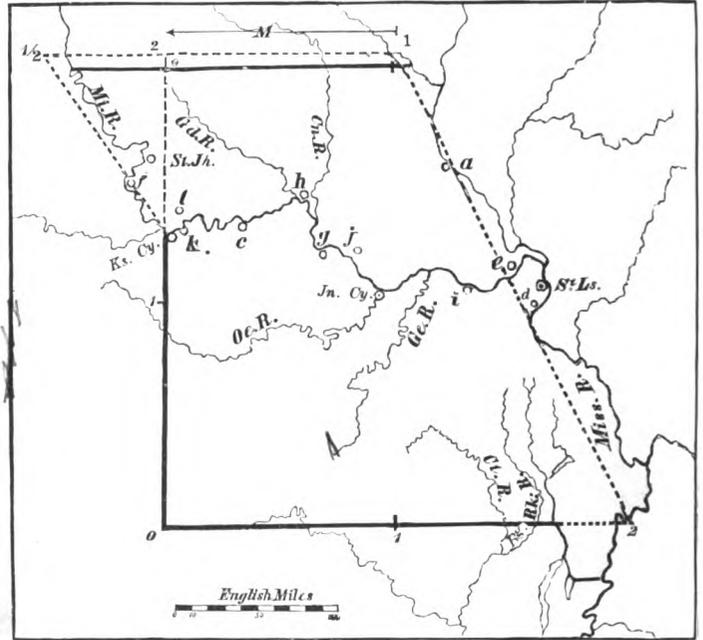
Describe the form of Iowa. Draw an outline of the State, naming its boundaries. What is the extent of the State from east to west? From north to south? What is the surface of Iowa? What part of the State is highest? How do you know this? Draw and describe the course of the rivers named above. Locate and describe the position of the capital of the State. Its largest two cities. How does the position of those two cities divide the eastern boundary of the State? In what part of Iowa are nearly all its cities? (See map, page 75.) Why should this be the case?

IOWA CLASSES.

Locate, in addition to the above :
 Rivers. Cities and Towns.
 Cedar. a Keokuk. d Iowa City. g Cedar Rapids.
 Chariton. b Burlington. e Fort Madison. h Bellevue.
 Upper Iowa. c Muscatine. f Council Bluffs. l Ottumwa.

MISSOURI.

I. Form.—*Missouri* is quite irregular in form, yet its greatest extent from east to west is very nearly equal to that



Length of Measure, 145 miles.

from north to south. The northern part of the State is much narrower than the southern.

To DRAW MISSOURI.—No directions needed. (See diagram.)

II. Objects to be placed upon the map drawn :

Mountains.	Rivers.	Cities.
Ozark.	Missouri.	JEFFERSON CITY.
	Osage.	St. Louis.
	Chariton.	St. Joseph.

III. NOTE.—In the southeastern half of Missouri are mines of both coal and iron, which are believed to be the richest in the United States. (Production of wheat, corn, and tobacco, see page 56.)

IV. Location of Cities.—(Location of *St. Louis*, see page 57). *Jefferson City*, capital of the State, is a small town situated on the right bank of the Missouri, eight miles from the mouth of the Osage.

Kansas City, the largest city of Missouri except *St. Louis*, is situated in the western part of the State, on the Missouri river.

EXERCISE.

Describe the form of Missouri. Draw an outline of the State, naming its boundaries. What is the extent of the State from north to south?

What is the surface of Missouri? Locate and describe the position of Ozark Mts. Draw and describe the course of the rivers named above. Locate and describe the position of the capital of Missouri. The largest city. The second.

MISSOURI CLASSES.

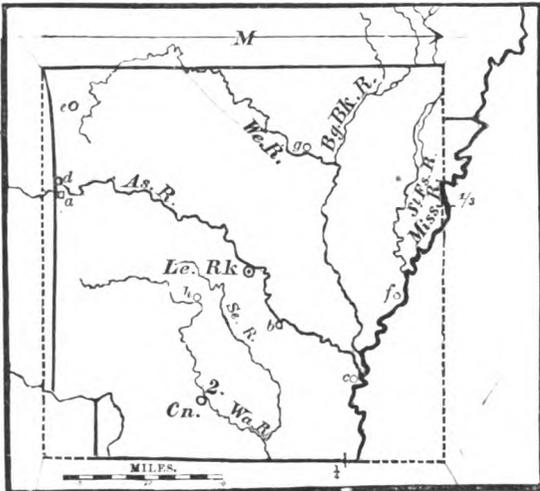
Locate, in addition to the above :
 Rivers. Cities and Towns.
 Grand. a Hannibal. g Boonville.
 Gasconade. St. Jh St. Joseph. h Brunswick.
 Current. c Lexington. j Columbia.
 Big Black. d Carondelet. k Independence.
 e St. Charles. l Liberty.
 f Weston.

ARKANSAS.

I. Form.—Arkansas is similar in form to Missouri, except that it is narrowest at the south.

TO DRAW ARKANSAS.—No directions are needed. (See diagram.)

II. Objects to be placed on the map drawn.
Mountains.
Boston.
Rivers.
Arkansas.
White.
Washita.
Towns.
LITTLE ROCK.
Camden.



Length of Measure, 245 miles.

III. NOTE.
—Arkansas has mines of iron, coal, and lead; and richer zinc mines than any other State except New Jersey.

IV. Location of Cities.—The cities of Arkansas are all very small. *Little Rock*, the capital, and largest city, is situated very near the centre of the State, on the right bank of the Arkansas river.

Camden is situated on the right bank of Washita river, at the head of steamboat navigation.

EXERCISE.

Describe the form of Arkansas. Draw an outline of the State, naming its boundaries. What is its extent from north to south? What portion of Arkansas is highest? Trace the boundary between its high lands and low lands. *Locate* and describe the position of Boston mountains.

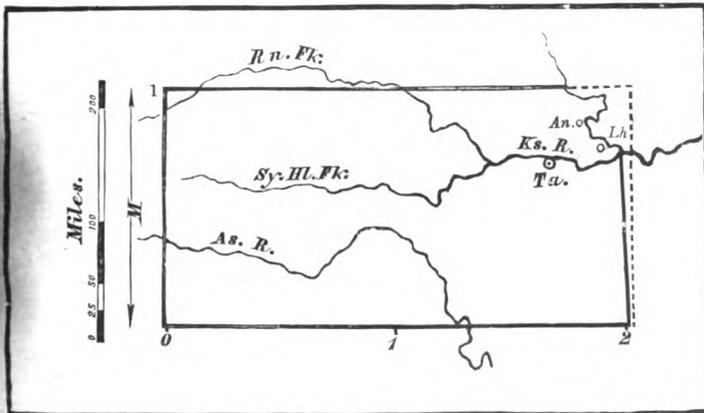
Draw and describe the course of the streams named above. *Locate* and describe the position of the capital of the State. Camden. What can you say of the size of cities in Arkansas?

ARKANSAS CLASSES.

Locate, in addition to the above:

- | | | |
|--------------|-------------------|-----------------|
| Rivers. | Cities and Towns. | |
| Big Black. | a Fort Smith. | e Fayetteville. |
| St. Francis. | b Pine Bluff. | f Helena. |
| Saline. | c Napoleon. | g Batesville. |
| | d Van Buren. | h Hot Springs. |

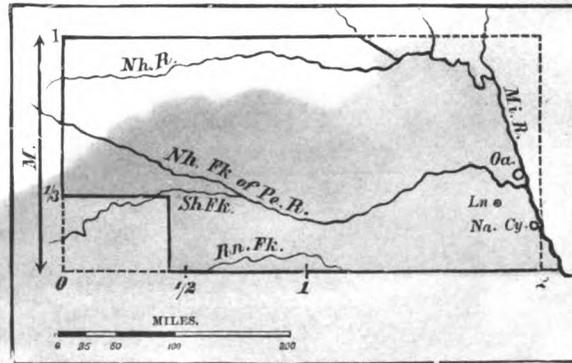
KANSAS AND NEBRASKA.



KANSAS.—Length of Measure, 200 miles.

I. Form.—These States are both oblong in shape, though Kansas is much the most regular in outline.

The length of each is about double its breadth.



NEBRASKA.—Length of Measure, 200 miles.

TO DRAW THESE STATES.—No directions are needed. (See outline.)

II. Place in map of Kansas:

Rivers.	Towns.	Rivers.	Cities.
Kansas.	TOPEKA.	Platte.	LINCOLN.
Smoky Hill Fork.	Leavenworth.	Ni-obrarah.	Omaha.
Arkansas.	Atchison.		Nebraska City.

III. NOTE.—Both these States are new, and only the eastern part is settled. They are almost entirely prairie-land.

IV. Location of Cities. — NEBRASKA has no large cities. *Lincoln*, since 1869, is the capital of the State. *Omaha*, the largest city, is situated on the Missouri river, just above the mouth of the Platte.

Nebraska City, next in size, is situated on the Missouri, not far from the southern boundary of the State.

KANSAS.—*Leavenworth*, the largest city of Kansas, is situated in the northern part of the State, on Missouri river.

This is one of the largest cities between the Mississippi and the Rocky Mts.

Topeka, capital of Kansas, is a small town situated in the eastern part of the State, on the right bank of Kansas river.

EXERCISE.

Describe the form of Kansas and Nebraska. Draw an outline of each State, naming its boundaries. What is the length of Kansas? Of Nebraska?

What is the surface of these States? Trace boundary of the high western plains of these States. Draw and describe the course of the streams of Kansas. Those of Nebraska. Locate and describe the position of the capital of Nebraska. Nebraska City. The capital of Kansas. Its largest city. What can you say of the size of Leavenworth? Of the cities of Nebraska?

NOTE.—*Kansas and Nebraska classes* should locate everything found upon the map of their State on pages 50 and 75.

REVIEW *Central States* like *Middle Atlantic States*, (page 70) drawing them in two groups. (See page 94.)

NATURE OF THE PACIFIC STATES (Map, page 95).

California, Oregon, and Nevada, are the only States lying west of the Rocky mountains. They are quite different in nature from all the other States.

I. East of the *Sierra Nevada* and *Cascade Mts.* are the high, dry, and barren plateaus (see page 54) of the Pacific highlands. The surface of the plateaus in Nevada is broken by a number of ranges of mountains. These receive some rain and give rise to streams, and the valleys among them are somewhat fertile.



YOSEMITE VALLEY.

II. The Sierra Nevada and Cascade mountains are very high, and are much broken. Among them are many narrow, deep valleys, into which streams descend from the mountains around, making falls which are the highest known. The valley of the Yosemite, in the Sierra Nevada, is such a one.

In the Sierra Nevada are mines of gold and silver which are among the richest on the globe. The Cascade mountains also contain gold mines. Many other valuable minerals are found in this section.

III. West of the Sierra Nevada and Cascade Mts., are broad, low valleys which are separated from the sea by ranges of low mountains. The most extensive of these are the Sacramento and San Joaquin valley in California, and the Willamette valley in Oregon.

IV. The Forests of the western mountains and valleys are noted for the great size and beauty of their ever-green trees. In California are several groves of the largest trees yet known.

Many of these "great trees" are over eight yards through at the bottom, and more than a hundred yards high.

V. Soil.—All these Pacific valleys are noted for their mild, pleasant climate, and the great fertility of their soil.

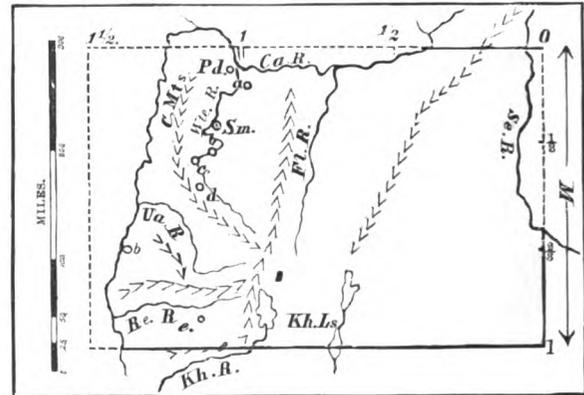
They yield most abundant harvests of all kinds of grain, and peaches, pears, apples, and other fruits; also garden vegetables grow to a much larger size than in the east.

In Southern California oranges, figs, and grapes for wine, are much cultivated. More wine is made here than in any other State.

Fine pasturage is also abundant, and the raising of cattle is an important occupation in California and Oregon.

OREGON.

I. Form.—Oregon is oblong in form, its greatest length being about one and one half times its breadth.



Length of Measure, 275 miles.

To DRAW OREGON.—See outline.

II. Objects to be placed upon the map drawn.

Mountains.	Rivers.	Towns.
Cascade.	Willamette.	SALEM.
Blue.	Fall.	Portland.
	Snake.	
	Columbia.	

III. Location of Cities.—Oregon has no large cities. Portland, the largest town of the State, is situated on the left bank of Willamette river near its mouth.

Salem, capital of the State, is a small town situated on the right bank of the Willamette in the middle part of its course.

Both these towns are surrounded by the beautiful, fertile lands of the Willamette valley, and may one day become large cities.

EXERCISE.

Describe the form of Oregon. Draw an outline of the State, naming its boundaries. What is the greatest extent of the State from east to west?

Of what land (see map of United States, page 51) does the larger part of Oregon consist? Of what does the western part consist?

Locate and describe the position of Cascade Mts. Blue Mts. The Coast Mts. Draw and describe the course of Fall river. Willamette river.

Locate and describe the position of the capital of Oregon. Its largest town.

OREGON CLASSES.	Locate, in addition to the above :		
	Rivers.		Towns.
	Klamath.	a Oregon.	d Eugene City.
	Rogue.	b Albany.	e Jacksonville.
	Umpqua.	c Corvallis.	f Empire City.

CALIFORNIA AND NEVADA.

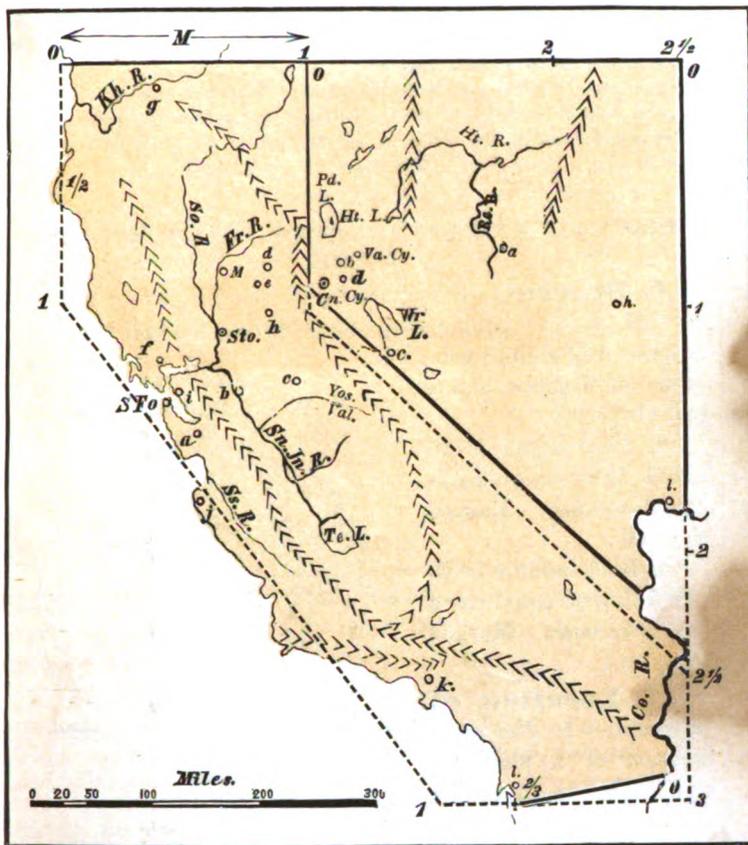
I. Form.—California is somewhat irregular in outline, yet its eastern and western boundaries are nearly parallel. The greatest length of the State is about four times its average breadth.

Nevada has the form of a trapezoid, its eastern and western sides being parallel. This State is longest from north to south, its greatest length being one and two-thirds times its breadth.

To DRAW THESE STATES.—1. Draw a vertical line, and trisect it, calling one part M.

2. At the top and bottom draw horizontal lines to the left, making the lower one M in length; the upper, two and one-half M.

3. At the left end of the upper line, and one M from that end, draw vertical lines downward, each one M in length.



Length of Measure, 210 miles.

4. Bisect the lower third of the first line drawn. Connect points (as in the diagram), and draw the remaining boundaries of the State.

II. Objects to be placed upon the map drawn.

Mountains.	Rivers.	Cities and Towns.
Sierra Nevada.	Sacramento.	SACRAMENTO.
Coast range.	San Joaquin.	San Francisco.
Humboldt Mts.	Klamath.	Virginia.
East Humboldt Mts.	Humboldt.	CARSON CITY

III. Cities.—The cities of Nevada are all situated among the silver mines on the eastern slope of the Sierra Nevada.

Virginia City is the largest, and the mines around it are considered the richest in the State. Carson City is the capital of Nevada.

San Francisco, is the largest city of California. (See p. 56.)

Sacramento, capital of the State, is the second city in size.

California has many other cities which are rapidly increasing in size and importance, both on the rivers and among the gold regions of the Sierra Nevada.

EXERCISE.

Describe the form of California. Of Nevada. Draw an outline of these States, naming their boundaries. What is the breadth of the northern part of California? Of Nevada?

Locate and describe the position of each of the mountain ranges and rivers named above. Into what do the rivers of Nevada, except the Colorado, flow? Why do they not flow into the ocean? What becomes of the water which is constantly entering these lakes?

Locate and describe the position of the capital of Nevada. Its largest city. Why are the cities of Nevada among the mountains?

Locate and describe the position of the capital of California. Its largest city. What can you say about the size and growth of San Francisco? Can you give any reason for this?

CALIFORNIA CLASSES.	Mountains.	Rivers and Lakes.	Cities and Towns.
CALIFORNIA CLASSES.	Shasta.	Feather.	a San Jose.
	Castle Peak.	Salinas.	M Marysville.
	Yosemite Valley.	Tulare L.	e Sonora.
			d Nevada.
			e Grass Valley.
			f Petaluma.
			g Yreka.
			h Placerville.
			i Oakland.
			j Monterey.
			k Los Angeles.
			l San Diego.

NEVADA CLASSES.	Lakes.	Cities and Towns.
NEVADA CLASSES.	Humboldt.	a Austin.
	Walker.	b Silver City.
	Pyramid. (See Map, p. 96.)	c Aurora.
		d Dayton.
		e Callville.
		f Hamilton.

THE WESTERN TERRITORIES.

I. Position.—Washington is the only Territory which has a sea coast. Several, however, have navigable streams, by means of which they can reach the sea.

Washington greatly resembles Oregon in climate, and in the occupations of its people.

II. People.—Indians are numerous in all the Territories, and Indian Territory belongs wholly to them. Some of the Indians have become partially civilized and carry on agriculture and grazing; but most of them are still entirely savage.

They often attack and kill the white settlers of the country, and the travellers passing across the mountains to Utah, or the States beyond.

Dakota, Montana, Wyoming, and Idaho, contain but few white people. Colorado has rich gold mines, that have caused it to increase rapidly in population during the last few years. Arizona and New Mexico have rich mines of silver.

Utah is peopled mainly by Mormons, who occupy the fertile valleys at the western foot of Wahsatch Mts.

The valleys of Utah, and that of the Rio Grande in New Mexico, contain several cities and towns. Denver, in Colorado, and Salt Lake City, in Utah, are the largest cities of the Territories.

EXERCISE.—(See map of United States, page 51.)

Bound each Territory, and describe its form. Draw an outline of each Territory. Locate and name the mountains, rivers, lakes, and capitals of each.

Review like Middle Atlantic States, page 70. Plan for drawing the Section, see page 95.

EXACT GEOGRAPHICAL POSITION.

CIRCLES OF THE GLOBE.

I. To assist us in ascertaining and describing the exact location of places certain circles are drawn upon the surface of the globe.

II.—1. These Circles all extend either directly east and west, or directly north and south.

2. They are represented upon maps by straight or curved lines drawn from top to bottom, or from right to left.

3. **Meridians.**—All circles extending north and south pass through both poles. The half circles extending from pole to pole are called Meridians.

The name Meridian means mid-day or noon. These lines are so called because when the sun is directly over any part of one, all places on that line have noon.

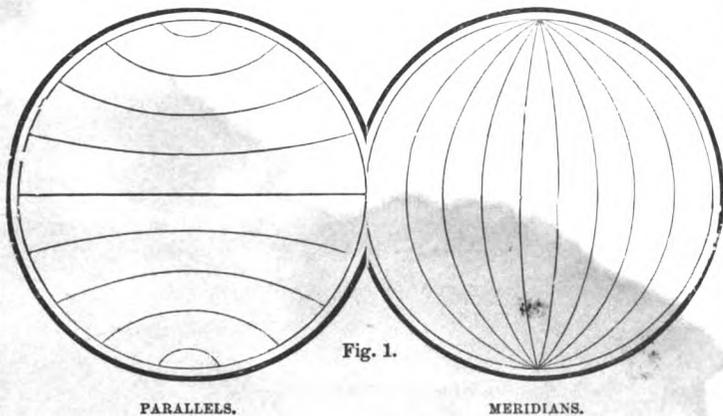


Fig. 1.

4. *Equator*.—A circle extends east and west around the globe, midway between the poles. This is called the *Equator*.

5. *Parallels*.—The circles extending east and west, between the equator and the poles, are called *Parallels*. Two of them, drawn near the poles, are called the *Polar Circles*; and two drawn near the equator are called the *Tropics*. These are usually *dotted lines*. (See also p. 89, VI.)

6. *Great and Small Circles*.—The Equator divides the surface of the Globe into two equal parts. Every circle drawn round the Globe from north to south also divides its surface into two equal parts.

Circles which divide the surface of the globe into two equal parts are called *great circles*; for no larger ones than they can be drawn upon the globe.

Those which divide the Globe's surface unequally are called *small circles*. The *parallels* are all small circles.

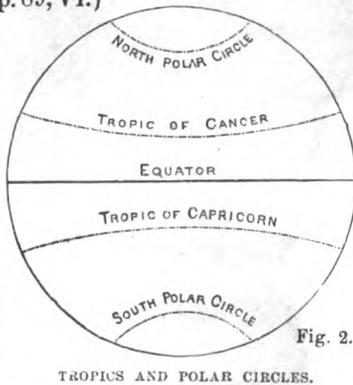


Fig. 2.

TROPICS AND POLAR CIRCLES.

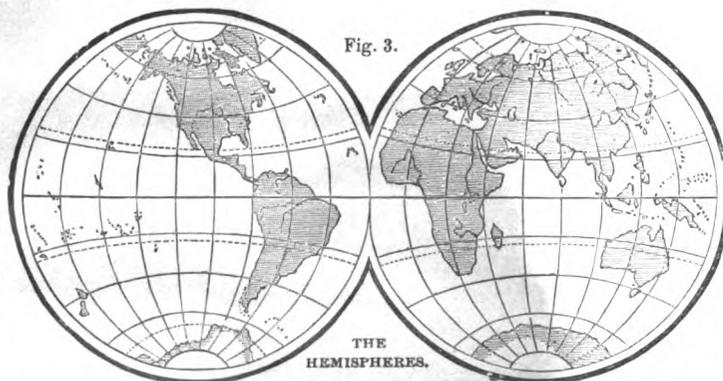


Fig. 3.

THE HEMISPHERES.

EXERCISE.—In what direction do the parallels extend? The meridians? Point to all the parallels drawn on the western hemisphere. All on the eastern hemisphere. Point to the north polar circle on each. The south polar circle. How many polar circles are there? Why do you see the north and the south polar circle in each hemisphere? What is the most northern point on the earth called? Where is it? The most southern point on the earth is what, and where? Find the north tropic in each hemisphere. The south tropic. By what name is each called? (See

Fig. 2.) How do the parallels and meridians drawn on the map of the hemisphere differ from those drawn on the globe? How do they appear when drawn on the Mercator map, page 12?

Which are the great circles of the globe? Find the equator. In what direction does it extend? How is it situated in regard to the poles? Find any two meridians on the globe, or on the map of the hemispheres which together form a great circle. Which are the small circles?

DISTANCE AND LOCATION OF PLACES ON THE EARTH.

I. Degrees.—Every circle, whether great or small, is divided into 360 equal parts, called *degrees*, marked thus 360°. A quarter of a circle contains 90 degrees, and a half circle 180.

2. Each *degree* is divided into equal parts called *minutes*. Marked thus, 60'.

3. Each *minute* is divided into 60 equal parts called *seconds*. Marked thus, 60''.

II. Location of places.

1. The *exact location* of a place on the globe is given by stating its distance *north or south of the equator*; and its distance *east or west from some particular meridian* which has been agreed upon, and is called the *Prime Meridian*.

2. The distance of a place north or south from the equator is called its *Latitude*.

3. The distance of a place east or west from the prime meridian, is called its *Longitude*.

4. The *latitude* and the *longitude* of a place are given in *degrees, minutes and seconds*, instead of miles.

III. The use of the parallels is to connect all places which are in the same latitude. The parallels are numbered at the sides of the map.

The *number* of the parallel shows how many degrees north or south of the equator is every place crossed by that parallel.

If the parallel be north of the equator, and the number be 20, it shows that every place in that parallel is in 20° north latitude.

From the equator to either pole is a quarter of a circle or 90°. There are, therefore, 90° of north latitude, and 90° of south latitude.

IV. The use of the Meridians is to connect all places which are in the same longitude, or at the same number of degrees from the prime meridian.

The *prime meridian* usually employed is the one passing through *Greenwich*, which is very near London in England.

The *meridians* are numbered at the top and bottom of the map, except in hemisphere maps, where they are usually numbered on the equator.

The *number* on the meridian shows how many degrees east or west of Greenwich is every place on the meridian.

If the meridian be west of Greenwich, and its number 60, it shows that every place crossed by that meridian is 60° west from Greenwich.

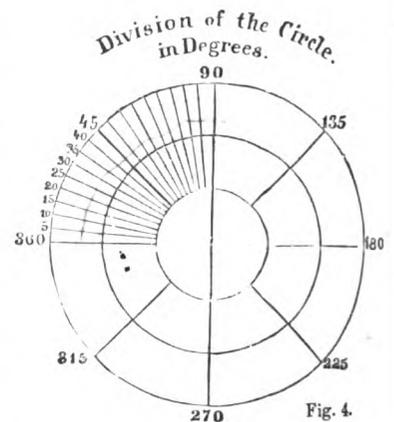


Fig. 4.

Longitude is reckoned from Greenwich eastward just half way round the globe; and westward half way round the globe.

There are thus 180° of east longitude; and 180° west longitude. Going in either direction the meridian of 180° degrees is the same. It, and the prime meridian, form together a great circle.

EXERCISE.—Map of World, page 12.

What parallel and meridian cross each other in the eastern part of Hudson B.? Where does this meridian touch South America? What city in South America, and what one in North America, very near this meridian? On which side of the meridian are these cities? What then is their longitude? *Ans. A little less* than 80° W. from Greenwich.* Near what coast is each one?

What cities of Europe and Asia lie on or near the parallel of 60° north latitude? What is remarkable about this parallel? *Ans. No great cities are north of it.*

What parallel crosses North America between New York and Washington? What other cities of North America near it? What cities of Europe and Asia near it? In what country is each of the cities? What is remarkable about this parallel in North America? *Ans. All the great cities of the United States, except New Orleans, lie within three degrees on each side of it.*

Between what two parallels are all the great cities and most powerful countries of Europe? Which only of the Great Powers (see page 50) extends north of the parallel of 60°? Between what two parallels are the most populous and powerful (see page 42) countries of Asia? What lands are crossed by the parallel of 40° south Lat.? What city is nearest to it? What parallel passes over Rio Janeiro?

What parallel passes through Behring St.? What water does it cross in North America? In Europe? *This circle is 23½° from the north pole.* What then is the latitude of the waters you have named?

What parallel crosses the central part of the Gulf of Mexico? Where does it cross Africa? What cities of Asia on or very near it? *This parallel is 23½° north of the equator.* What then is the latitude of these places? What did you find to be the latitude of the southern capitals of Europe, and the great cities of the United States? Where does the equator cross South America and Africa? What other lands are crossed by it? What latitude have these places? Why?

* Washington, 77°; Quito, 78° and some minutes.

Where does the tropic of Capricorn cross South America? Africa? Australia? What cities do you find near it? *This circle is at the same distance from the equator as is the tropic of Cancer.* What then is the latitude of these cities? What cities have you found in this latitude north of the equator?

What meridian passes through the Baltic Sea in western Europe? Where does this meridian cross Africa? What city in Europe, and what one in Africa very near this meridian? What is the longitude of these cities?

What meridian crosses Australia near its centre? What other lands does it cross? Where does it cross Asia? What city is on this meridian, and what two very near it? What is remarkable about these cities. *Ans. They are the most eastern cities in the Old World; and Yeddo is one of the largest on the globe.*

What meridian passes through North America near San Francisco? How much farther west is this city than Washington?

LATITUDE AND LONGITUDE OF THE TWO WORLDS.

(Map, page 12.) What parallel passes a little south of Cape Horn? What is the latitude of this point? *Ans. About 55° south lat.* What parallel passes near Pt. Barrow? What is the latitude of this point? *Ans. About 71° north lat.* Through how many degrees of latitude does the New World extend? What meridian passes through the middle of the New World? On which side of this meridian does South America lie? On which side is most of North America? What is the longitude of the most eastern point of South America? Of the most western point of North America?

What meridian passes near C. Verd? What is then its longitude? What is the longitude of East Cape? *Ans. It is midway between the meridians of 160° west lon. and 180°; therefore its longitude is about 170° west from Greenwich.*

Over how many degrees of longitude does the Old World then extend? *Ans. From Greenwich it extends eastward ten degrees beyond the meridian of 180°, which makes 190°. It also extends westward from Greenwich nearly 20°, which makes its extent in all, 210° of longitude.* What meridian passes through the middle of the double continent, Asia-Europe?

What parallel passes near the southern point of Australia? What parallel passes near N. E. Cape? What is the latitude of this cape? *Ans. About 78° north lat.*

How much farther does the Old World extend north of the equator, than south of it? Through how many degrees of latitude in all does it extend?

EXERCISES ON MAP OF UNITED STATES.

NOTE TO TEACHERS.—The purpose of the exercises below is to fix firmly in mind the relative position of the States and leading cities of our country.

What States would you cross, or pass near, in going from the Atlantic to the Pacific ocean along the parallel numbered 45? Through what part of each do you pass?

Model.—In going along the forty-fifth parallel, from the Atlantic ocean to the Pacific, we pass across the middle part of Maine, and northern part of New Hampshire; along the northern border of Vermont and New York; across the middle part of Michigan and Wisconsin; the southern part of Minnesota; and the northern part of Oregon.

What States would you cross, or touch, in going across the country on the 40th parallel? Through what part of each do you pass? Follow in the same way the 35th parallel. Follow also the 30th parallel. What State near the Rocky Mountains directly west of Virginia? Which extends farthest south?

What city on the Atlantic coast has the same distance from the thirtieth parallel as the southern border of California? What city very nearly the same distance from the fortieth parallel as is the northern boundary of California? How wide a belt of land would California cover if it were moved across to the Atlantic coast?

Answer.—California would reach from Boston to the middle of New York State; and from Charleston to the Blue Ridge.

What States would be wholly, or nearly, covered by it?

Which is the farthest north, New York city or Chicago? What large city of the Atlantic Plain directly east of Chicago? What large city near the G. of Mexico directly south of Chicago? What States would you cross in going from Chicago to each of them? What two great cities nearly west of Baltimore? Which is the most southern? What States would you cross in going from this city to Baltimore? What great city northeast of New York? What one about the same distance southwest of New York? What great city about half-way between New York and Baltimore?

What States would you cross in going from C. Hatteras directly west to the Pacific ocean? Through what part of each of these States would you pass? What States will you cross in going directly west of C. Cod to the Pacific ocean? Where will you cross each?

Which of our nine great cities is farthest south? Which two are farthest north? Which one is farthest east? Which two are farthest west?

What important city in the Atlantic Plain, nearly opposite San Francisco? Which is the farthest south? What important city of the Atlantic Plain, a little farther north than San Francisco? If you go directly north from Charleston, what great lake do you reach? At what point do you strike the shore of the lake? What two cities on the lake shore, equally distant from this point? What cape at the east, and what river at the west, equally distant from the same point? What part of Florida directly south of Charleston? What cape directly south of Philadelphia? What place on St. Lawrence river, almost directly north of Philadelphia? What city directly north of C. Cod?

What two State capitals lie almost directly north of the mouth of Chattahoochee river? What States would you cross in going to the most distant of the two? What two important cities, and what three State capitals, lie almost directly north of New Orleans? What States, and what part of each, would you cross in going from New Orleans to Madison? What important city on Missouri river, and what one on the Gulf coast, lie directly south of Itasca lake? In what State do you live? In what part of the State? What States, rivers, lakes, and mountains, would you cross in going from your home—directly eastward to the Atlantic ocean? Directly westward to the Pacific ocean? Directly southward to the border of our country? Directly northward to the border of our country? In each case, what important places do you pass; and where does your journey end?

* Let the pupils place a mark upon the map as near as may be where their town is. The teacher can ascertain the location from any State map accessible.

SUPPLEMENTARY LESSONS.

TO BE USED AT THE DISCRETION OF THE TEACHER.

THE EARTH AND ITS INHABITANTS.

FORM AND SIZE OF THE EARTH.

NOTE.—A body having all parts of its surface equally distant from its centre (like a ball, globe, or marble) is called a *sphere*. The distance through the centre of a sphere, from side to side, is called its *diameter*. The distance around a sphere is called its *circumference*.

I. The earth is shaped like a sphere, but is slightly flattened at the poles. The flatness is so slight that it cannot be discovered by the eye, even on a globe ten feet in diameter.

II. Proofs of the Earth's Form.—The earth is known to be spherical by several facts. The following are among the simplest :

1. People have sailed round it, both eastward and westward.



Fig. 1.

2. When ships come in sight at sea, the upper part is seen first, all the lower part being hidden by the curve between the ship and the person watching it. And persons on board a ship, approaching the land, see the tops of mountains at some distance from the shore before the nearer lowland can be seen.

If the earth's surface were flat, the hull, or body of the ship, would be first seen, because largest; and the nearest land would be the first seen from the ship.

3. The shadow of the earth upon the moon, forming an *eclipse of the moon*, is always a circle, or part of a circle.

No form but a sphere can cast a circular shadow in every case, whatever side be toward the light.

III. The Diameter of the earth is nearly 8,000 miles, and its circumference is about 25,000 miles.

MOTIONS OF THE EARTH AND THEIR RESULTS.

I. Daily Motion.—The earth whirls, or rotates, constantly; turning from west to east, around a central line called the *axis* of the earth.

The points on the earth's surface, at the ends of its axis, are called the *Poles*.

The rotation of the earth brings every point on its surface into light and into darkness alternately, thus causing *day* and *night*. (See page 7, Lesson II.)

The time of one rotation is twenty-four hours.

As the earth turns from west to east, the sun rises, or comes in sight, at the east; and sets or goes out of sight, at the west. Thus the effect is the same as though the sun passed around the earth from east to west every twenty-four hours.

II. Yearly Motion.—The earth revolves around the sun once in 365½ days. The time of one revolution is called a *year*; and this motion is called the *annual*, or *yearly motion*.

The path of the earth around the sun is called the *orbit* of the earth; and the circular space included within this path is called the *plane of the earth's orbit*.

Imagine a sheet of glass, the thinnest possible, passing through the centre of the sun, and extending out on every side to the orbit of the earth. This will represent the plane of the earth's orbit. This plane divides both the earth and the sun into hemispheres; one of each being above, and the other below the plane of the earth's orbit.

III. Position of the Earth.—The axis of the earth is not perpendicular to the plane of the earth's orbit, but is inclined towards it 23½ degrees, and is *always parallel to itself*.

The *North Pole*, the extremity of the axis, points always towards the northern part of the heavens, in the direction of a star called the *North*, or *Pole Star*.

One half of the equator always slants 23½ degrees below, and the other half the same distance above, the plane of the earth's orbit.

IV. Change of Seasons.—The revolution of the earth around the sun, together with the inclination and the unvarying direction of the earth's axis, causes a change of seasons during the year. (See fig. 4.)

EXPLANATION.—On the 20th of March, the earth is so situated in its orbit that the sun is vertical or directly overhead, at the Equator. Its light, since it covers half the earth's surface, then reaches 90° on each side of the equator, or to each pole; and the two hemispheres, northern and southern, receive the same amount of heat. The northern hemisphere then has *Spring*, and the southern has *Autumn*.

On the 21st of June, when the earth has made one quarter of its revolution, the sun is vertical 23½° north of the equator (because the axis of the earth is inclined 23½°, and now points towards the sun.) The light, reaching 90° on each side of the place at which the sun is vertical, extends 23½° beyond the North Pole; but does not reach the South Pole within 23½°. The northern hemisphere then, receiving much more heat than the southern, has *Summer*, while the southern has *Winter*.

On the 23d of September, the earth has made one half of its revolution; and the light and heat are shed upon it as on the 20th of March. The northern hemisphere then has *Autumn*, and the southern has *Spring*.

On the 22nd of December, after three quarters of a revolution, the earth's place in its orbit is opposite to that it had on the 21st of June; but the North Pole, still pointing toward the north, points away from the sun. The sun is then vertical 23½° south of the equator. The light reaches 23½° beyond the South Pole, but falls 23½° short of the North Pole. The southern hemisphere then has *Summer*, and the northern has *Winter*.

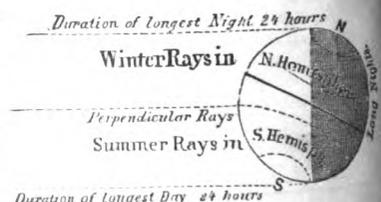
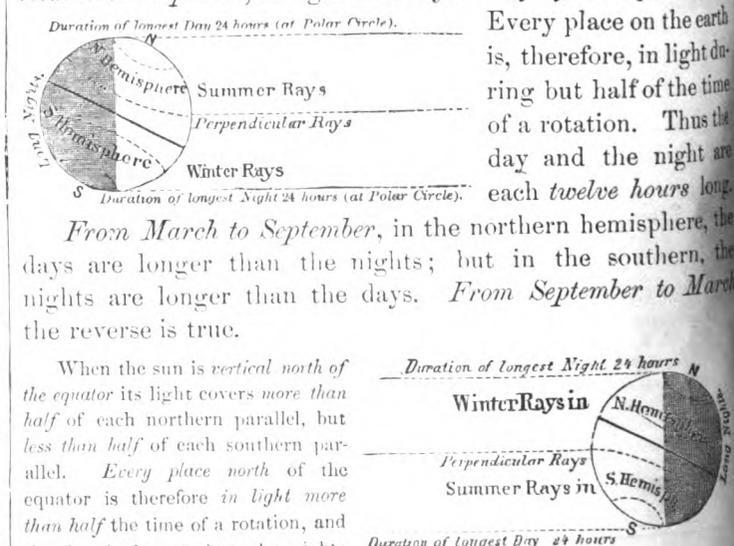
If the earth's axis were perpendicular to the plane of its orbit, the sun would, in all parts of the earth's revolution, be vertical at the equator; and the light and heat would be shed upon the earth at all times as they now are on the 20th of March and the 23rd of September.

V. Length of Day and Night.—When the sun is vertical at the Equator, its light covers just half of each parallel.

Every place on the earth is, therefore, in light during but half of the time of a rotation. Thus the day and the night are each twelve hours long.

From March to September, in the northern hemisphere, the days are longer than the nights; but in the southern, the nights are longer than the days. From September to March the reverse is true.

When the sun is vertical north of the equator its light covers more than half of each northern parallel, but less than half of each southern parallel. Every place north of the equator is therefore in light more than half the time of a rotation, and the day is longer than the night; while every place south of the equator has light less than half the time of a rotation, and the day is shorter than the night (as is seen by fig. 2)



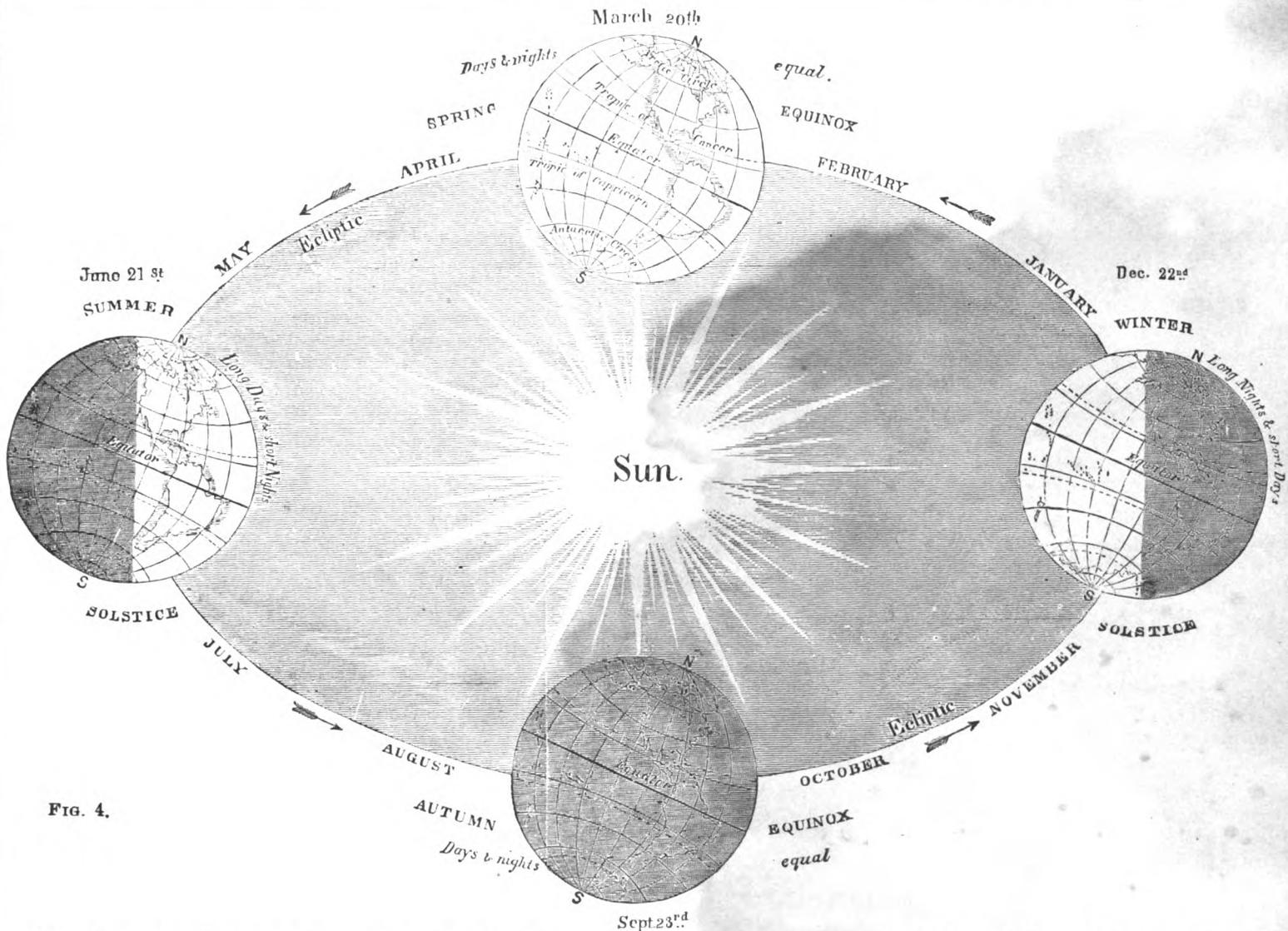


FIG. 4.

When the sun is vertical south of the equator (fig. 3) the day in the southern hemisphere is longer than the night; while in the northern hemisphere it is shorter.

VI. Limit of Zones.—The sun is vertical during some part of the year at every place between $23\frac{1}{2}^\circ$ north latitude and $23\frac{1}{2}^\circ$ south latitude, but is never vertical beyond these parallels.

The Tropics mark the places farthest from the equator at which the sun is ever vertical. The space between them is called the *Torrid* (burning) Zone, because, having the vertical sun, it is the hottest region of the earth.

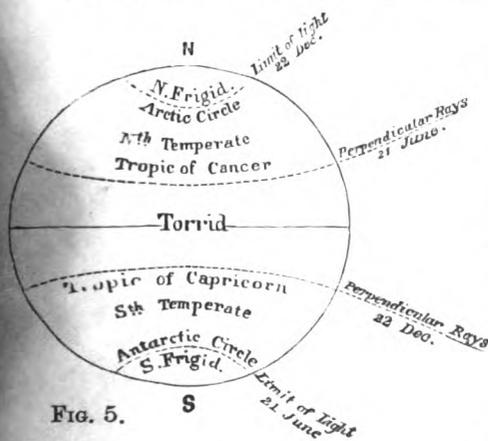


FIG. 5.

during the whole rotation of the earth, as the sun's light but just reaches that circle. The parts nearest the pole are in darkness for several months in succession.

The spaces within the Polar Circles, having so little of the sun's influence, are the coldest parts of the earth's surface; and are therefore called the *Frigid* (frozen) Zones.

The spaces between the Tropics and Polar Circles are called the *Temperate Zones*, because they have less extremes of heat and cold.

Only the temperate Zones have four distinct seasons, differing in temperature. The Torrid Zone is very warm throughout the year, and the Frigid very cold.

PEOPLES AND GOVERNMENTS.

I. Races of Men are the classes into which mankind are divided on account of differences in the color of the skin, shape and size of the head, form of the features, and other particulars.

THERE ARE THREE MAIN RACES: The *White* race, the *Yellow* race, and the *Black* race of Africa, called *Negroes*.

1. The *White* race includes the different nations of *Europe*, and their descendants in all parts of the world; together with the nations of *Nth. Africa*, *W. Asia*, and the *Hindoos* of *India*. The white people of the *New World* are descended from *Europeans*.

The people of *Southern Europe* are darker in complexion than those of *Middle* or *Northern Europe*; and those of *W. Asia*, *India*, and *Nth. Africa* are still darker.

2. The *Yellow* or *Mongolic* race (see page 42, X.) includes the *Chinese*, *Japanese*, and other people of *Middle* and *Eastern Asia*.

3. The *African* or *Negro* race includes the natives of *Middle* and *Southern Africa*, and their descendants in all parts of the world. There are many negroes in the *United States*, *Central America*, the *West Indies*, and *South America*.

THERE ARE THREE SECONDARY RACES: a *Red* race, called *Indians*, who are the native people of the *New World*; a *Brown* race, who

inhabit the *Malay Peninsula* and the Islands of the Pacific; and a secondary *Black* race (see page 38, IV.) inhabiting Australia.

The *Indians and Malays* differ but little from the Mongolic race and are supposed to be branches of it. The Australians have straight or frizzed hair, unlike the Africans, but are supposed to be a branch of the African race.

II. Civilization.—The people of the earth differ in their *mode of life*, and are therefore classified as *Civilized, Nomadic or Wandering, and Savage* people.

1. *Savages* live in rude huts and obtain the materials for their food and clothing mainly from wild animals, fish, and the productions of the forest. The *Indians of America, the Negroes in Africa, the Australians* and the *Malays*, are nearly all savages.

2. The *Nomadic*, or wandering people live in tents. They raise flocks and herds, from which, chiefly, they supply their wants; and, on account of the barrenness of the countries they inhabit, are obliged to wander from place to place in search of pasture. (See page 35, "**North Africa**," and page 42, IX.)

This class belong principally to the *White* and the *Mongolic* race. They form most of the inhabitants of the *Sahara*, and of *Arabia, Afghanistan, Beloochistan, Turkestan, and Mongolia*.

Both savage and nomadic races are divided into *tribes*, the *chief*, or head man of the tribe having complete control over the life and property of every person belonging to it. His will is the only law of his people.

3. *Civilized people* supply their wants by means of agriculture, manufacturing, commerce, and other occupations (see page 17, L. X.); they build cities, support schools, gather themselves into *nations*, and adopt systems of laws for their government.

This class includes all the nations of *Europe* and the *New World*; the people in the *fertile portions of Western Asia and Northern Africa*; and those of *India, China, and Japan*. The *European and American* nations in general are much more highly civilized than the nations of Asia and Africa. (See p. 91, "Note".)

III. Government. Among civilized nations are two principal forms of government: the *Republican government* and the *Monarchy*. The former exists in nearly all the nations of the New World; the latter in nearly all of the Old World.

1. A *Republican government* is one in which the *supreme power is exercised by representatives of the people*. These representatives are *elected* (chosen) and their duties determined according to a *constitution, or plan of government*, which controls all. A country so governed is called a *Republic*. The highest officer of a republic is called the *President*.

Our own country is a republic, composed of States, which are also republics. Our *constitution* divides the government into *three departments*: the *Legislative*, to make laws; the *Executive*, to carry them into effect; and the *Judicial*, to decide questions that may arise in regard to their meaning or application.

The *Legislative department* rests in a *Congress*, and the *President*. Congress consists of a *Senate* and *House of Representatives*. The *Senate* is composed of two members from each State, elected for six years. The *House of Representatives* consists of members elected for two years, the *number from each State* depending on the population of the State. All "*Bills*" passed by Congress must be sent to the President, for his signature, before they can become laws. A *Bill vetoed* (forbidden) by the President, may, however, become a law, if, on reconsideration, *two-thirds of each House approve it*. The *Senate has judicial power* in cases of impeachment.

The *Executive Department* consists of the *President*, elected for four years, and his *Cabinet*. The Cabinet consists of seven persons, appointed by the President, to take charge of the different branches of his department. With the President is elected a *Vice-President*, to take his place in case of his removal from office by death or any other cause. The Vice-President is president of the Senate.

The *Judicial department* rests in a *Supreme Court* and inferior courts, whose judges are appointed by the President, with the consent of the Senate.

2. A *Monarchy* is a government in which the *supreme power is in the hands of one ruler, or Sovereign*. The Sovereign usually inherits his office, holds it during life, and at his death is succeeded

by some member of his family, his oldest son having the first right to the throne.

The *Sovereign* of a country is usually called the *Emperor, King, or Prince*; and the country is called an *Empire, Kingdom, or Principality*. Some very small States are called *Duchies*, and their sovereign has the title of *Duke*.

The Emperor of Russia is also called the *Czar* (pronounced Tzar); and the Sovereign of the Turkish Empire is called the *Sultan* (sül-tan).

In an *absolute*, or entire *Monarchy*, the people have no part in making the laws; but the Sovereign controls the legislative and judicial departments of the government as well as the executive.

In some *monarchies*, however, the *power of the Sovereign is limited by a constitution*, and the people take part in making the laws, especially such as directly affect themselves or their property. The *Monarchies of Asia and Eastern Europe*, except Greece, are all *absolute*; those of *Central and Western Europe* are all *limited*.

The government of *Great Britain* is the best of limited monarchies. The *Sovereign*, with a Cabinet of assistants, forms the *executive department*. The legislative department rests in a *Parliament*, which consists of the *Sovereign, a House of Lords*, most of whom inherit their office, holding it for life; and a *House of Commons*, elected by the people, for a *single Parliament*, which cannot continue more than seven years. Only the Sovereign can call a Parliament, and he can, at pleasure, dismiss it for a time, or dissolve it entirely. The House of Lords is a *supreme court* as well as a *law-making body*, and is thus a branch of the *judicial department*.

COUNTRIES CLASSIFIED BY GOVERNMENTS.

NOTE TO TEACHERS.—Pupils should learn these tables thoroughly, so as to be able to reproduce them upon the black-board in recitation. They should also look out the position of each country upon the map, and in recitation point it out, describe its location and boundaries, state its form of government, and give the name and location of its capital.

I. NORTH AMERICA.	REPUBLICS.....	United States, Mexico, (Government unsettled.)	Each consists of several States united under one government.
	DEPENDENT DIVISIONS. }	Danish America, (See p. 30.) British America, † (See p. 29.) Alaska. (See p. 29.)	
† The Dominion of Canada consists of seven provinces: Ontario, Quebec, New Brunswick, Nova Scotia (including Cape Breton Island), Manitoba, British Columbia, and Prince Edward Island. The government consists of a Governor-General and Senate, appointed by Great Britain; and a House of Commons elected by the people. The Senate and House form the Parliament, or legislative body. Each province has a Lieutenant-Governor and a Legislature.			
Newfoundland has a Governor appointed by Great Britain; and a legislative Assembly chosen by the people.			
II. CENTRAL AMERICA.	REPUBLICS.....	Guatemala, Honduras, San Salvador, Nicaragua, Costa Rica, (See Map, p. 100.)	The government in all these countries is very unsettled.
	DEPENDENT.....	Belize, belonging to Great Britain.	
III. WEST INDIES. See Map, page 100.	REPUBLICS.....	Hayti, Dominican Rep. (Government unsettled.)	Island of Hayti. (Inhabitants chiefly negroes.)
	DEPENDENT ISLANDS. }	Cuba, Porto Rico, Part of Lesser Antilles, Jamaica, Bahama Islands, Part of Lesser Antilles.	Belong to Spain. Belong to Great Britain.
Other small islands belong to FRANCE, HOLLAND, DENMARK and SWEDEN.			
IV. SOUTH AMERICA.	REPUBLICS.....	Venezuela, Columbia, Ecuador, Peru, Argentine Republic, Bolivia, Chili, Paraguay, Uruguay,	
	EMPIRE.....	Brazil. (A Limited Monarchy.)	
	DEPENDENT.....	Guiana.....	British, French, Dutch.
	UNSETTLED.....	Patagonia. (No Government.)	

Exercise.—State the location, boundaries, form of government, and capital of each country, and name the capital of each. Describe the location, boundaries, and form of government of each country, and name the capital of each.

V. CONTINENT OF EUROPE AND BRITISH ISLES.

LIMITED MONARCHIES.	KINGDOMS.....	GREAT BRITAIN AND IRELAND, Norway and Sweden, (one sovereign), Denmark, Greece, Holland, Italy, Belgium, Portugal, [settled.] PRUSSIA, Spain, (Government un-Bavaria, Saxony, Wurtemberg, Hungary. (The Emperor of Austria is King of Hungary.)	EXERCISE.—State the location and boundaries, the form of government and capital of each country.
	EMPIRES.....	AUSTRIA (includes the Kingdom of Hungary.) GERMANY. Roumania. (Part of Turkish Empire.)	
	PRINCIPALITY.		
ABSOLUTE MONARCHIES.		RUSSIA, Turkey. } Empires. Large parts of each empire in Asia. (See page 42, I. and VIII.)	
	REPUBLICS.....	Switzerland, Hamburg, Bremen, Lubeck, San Marino. (A small Italian city, near the Adriatic sea, east of Florence.) Andorra. (A small country in the Pyrenees.) FRANCE (Since 1871.)	

Prussia, Saxony, Bavaria, and Wurtemberg, and sixteen small states, which are either principalities or duchies, together with the three city republics, form the German empire. The King of Prussia is Emperor of Germany. Berlin is the capital of the empire.

VI. SMALLER EUROPEAN ISLANDS.

1. Atlantic Ids.	2. Baltic Ids.	3. Mediterranean Ids.	
Shetland Ids. } <i>Belong to</i>	Bornholm } <i>Belong to</i>	Balearic Ids. } Spain.	<i>Belong to</i>
Orkney Ids. } Great Britain.	Zealand } Denmark.	Corsica } France.	
Hebrides Ids. } Great Britain.	Funen } Denmark. (See Map, p. 102.)	Sardinia } Italy.	
Isle of Man } Great Britain.	Laaland } Sweden.	Sicily } Great Britain.	
Anglesey } Great Britain.	(And small Ids. near them.)	Malta } Great Britain.	
I-Isle of Wight } Great Britain.	Oeland } Sweden.	Ionian Ids. (in Ionian Sea, on west coast of Greece) } Greece.	
Scilly Ids. } Great Britain.	Gothland } Prussia.	Candia } Turkey.	
Channel Ids. } Great Britain.	Rugen } Prussia.	Rhodes } Turkey.	
Lofoden Ids. } Norway.	Aland Ids. } Russia.	Cyprus } Turkey.	
Faroe Ids. } Denmark.	Dago } Russia.		
	Oesel } Russia.		

EXERCISE.—Describe the location of each, and of the country to which it belongs. (Map of Europe, page 44, *British Isles*, page 48.)

VII. MONARCHIES OF ASIA, ALL ABSOLUTE.

Chinese Empire.....	(For divisions, see page 42, II.)	EXERCISE.—On first six countries as in Europe. Give location only of the other countries and cities.
Empire of Japan.....	(Islands.)	
" " Persia.....		
" " Burmah.....		
Kingdom of Siam.....	in Indo China.	
" " Anam.....		
" " Nepal.....		
" " Bhotan.....	in Himalaya Mountains.	
" " Cashmere.....		
" " Corea (Tributary to China.)		

In the fertile parts (see page 42, V.) of Arabia, Turkestan, Afghanistan, and Beloochistan, are cities whose chief (called *Kahn* or *Sultan*) governs the surrounding country. The most important of these are *Mecca* and *Muscat*, in Arabia; *Bokhara* and *Khiva* in Turkestan; *Candahar* and *Cabool*, in Afghanistan; and *Kelat* in Beloochistan.

VIII. DEPENDENT ASIATIC COUNTRIES.

Siberia (see page 42, I.) and **Georgia** (Belong to Russia).
India (see page 42, III.) Divided for government into three *Presidencies*: *Bengal*, *Mudras*, and *Bombay*. The highest officer is a *Governor-General*, who is appointed by the British Government, and resides at Calcutta.
Turkey (see page 47, VIII.) Includes Asia Minor, Armenia, Mesopotamia, and Syria.

ISLANDS.

Borneo.....	} half of each.. } <i>Belong to</i>	Ceylon.....	} <i>Belong to</i>
Sumatra.....		Andaman Islands.....	
Java.....	} <i>Belong to</i>	Singapore.....	} Great Britain.
Celebes.....		Hong-Kong.....	
Banca.....			
Molucca Islands.....			
New Guinea (west half).....	Holland	Philippine Islands.....	Spain.
Several Smaller Islands.....		Saghalien.....	Russia.
		New Siberia.....	

EXERCISE.—Describe the location of each, and of the country to which it belongs.

IX. NORTH AFRICA. (Inhabited by white races.)

ABSOLUTE MONARCHIES.....	Marocco (Empire), Tripoli (Sovereign called <i>Pasha</i> (pa-shaw').
CONSTITUTIONAL MONARCHIES.....	Egypt (Sovereign called <i>Viceroy</i>), Tunis (Sovereign called <i>Bey</i>). (The last three states above named are nominally subject to the Sultan of Turkey.)
DEPENDENT COUNTRIES.....	Algeria..... <i>Belongs to</i> France. Fezzan..... " Tripoli. Nubia..... " Egypt. Kordofan..... " Barca..... " Turkey.

EXERCISE.—State the location and capital of each. State the title of the sovereigns. With what empire are they connected? To what country do the other divisions of North Africa belong? By what race are they inhabited?

X. CENTRAL AND SOUTH AFRICA. (Inhabited by negroes who are chiefly savages.)

REPUBLICS.....	Liberia (Civilized Negroes, mostly from the United States). Transvaal Republic, Orange River Free State. } Mixed population of Dutch and Caffres.
NATIVE KINGDOMS.....	Senegambia, Soudan, Abyssinia, Zanguebar, } Partly civilized. (See Page 85. "The Interior.")
EUROPEAN COLONIES.....	Sierra Leone, Cape Colony, Natal, } <i>Belong to</i> Great Britain. Congo, Angola, Benguela, Mozambique, } " Portugal. Senegambia, " France.

EXERCISE.—Describe the location of each, and name the country to which each colony belongs. By what race is this portion of Africa chiefly inhabited? What is the condition of the "Native Kingdoms" in regard to civilization? Who inhabit the Republics?

XI. Australia and the islands of **Tasmania** and **New Zealand** belong to Great Britain. They are divided into colonies, each having a Governor appointed by Great Britain, and a Legislative body.

RELIGIONS.

Among civilized nations are four different systems of religion: the *Christian*, *Jewish*, and *Mohammedan*, and the worship of *Brahma* or *Buddha*; all of which originated with the white race. The *savage races* are worshippers of idols, and of various natural objects—as animals, the sun, etc.

The *Nations of the New World*, and of *Europe*, excepting the Turks, are Christians. They believe in the Bible as the *word of God*, and in Jesus of Nazareth as the *Saviour of the World*.

The *Jews*, who are the descendants of Abraham, are scattered among all civilized nations. They believe in the Old Testament, but reject the New. They were once a powerful nation in Western Asia, and *Jerusalem* was their Capital.

The *Nations of Western Asia* and *North Africa*, and the *Turks* in Europe, are Mohammedans—that is, followers of a man named Mohammed, who lived in Arabia, about six hundred years after the birth of Christ, and claimed to be a prophet of God.

Christians, Jews, and Mohammedans alike *acknowledge and worship the one true God, the Creator and Preserver of the Universe*.

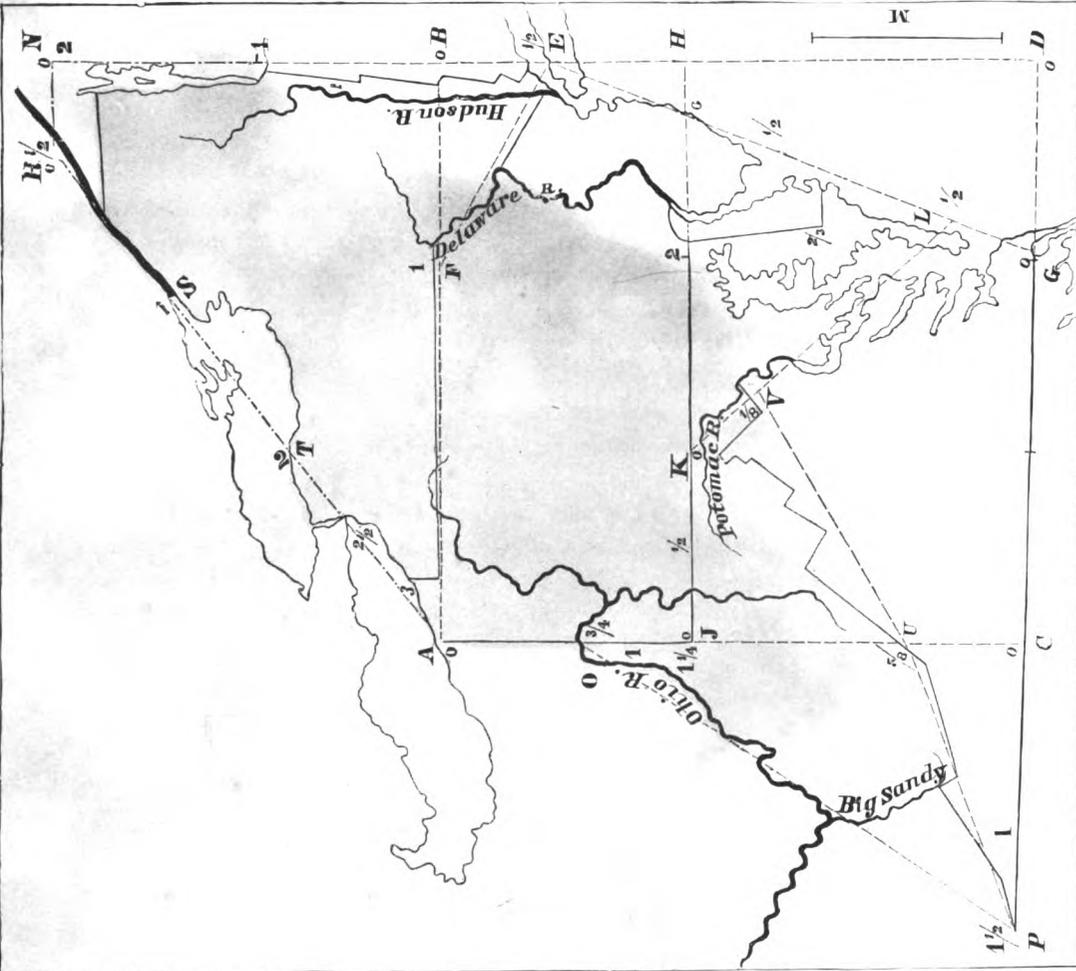
The *Hindoos*, who inhabit the middle and northern part of India, are worshippers of a false god called *Brahma*. The people are divided into four classes, or *castes*, whose ancestors, they believe, sprang from different parts of the person of the god: the highest caste from his head; the lowest from his feet, and the others from his arms and his body. They believe also in many inferior gods, who are represented by idols, and are objects of worship.

About five hundred years before the birth of Jesus Christ, some changes, or *reforms*, were made in the Brahminic religion. The reformer is called *Buddha*, and is worshipped by his followers as a god. The reformed religion, called *Buddhism*, was carried by missionaries into *Central* and *Eastern Asia*, and is now the religion of most of the Mongolian race.

NOTE.—The *Christian nations* are in general superior to the others in civilization, mental culture, and refinement of character and manners. They are therefore commonly called the *enlightened nations*.

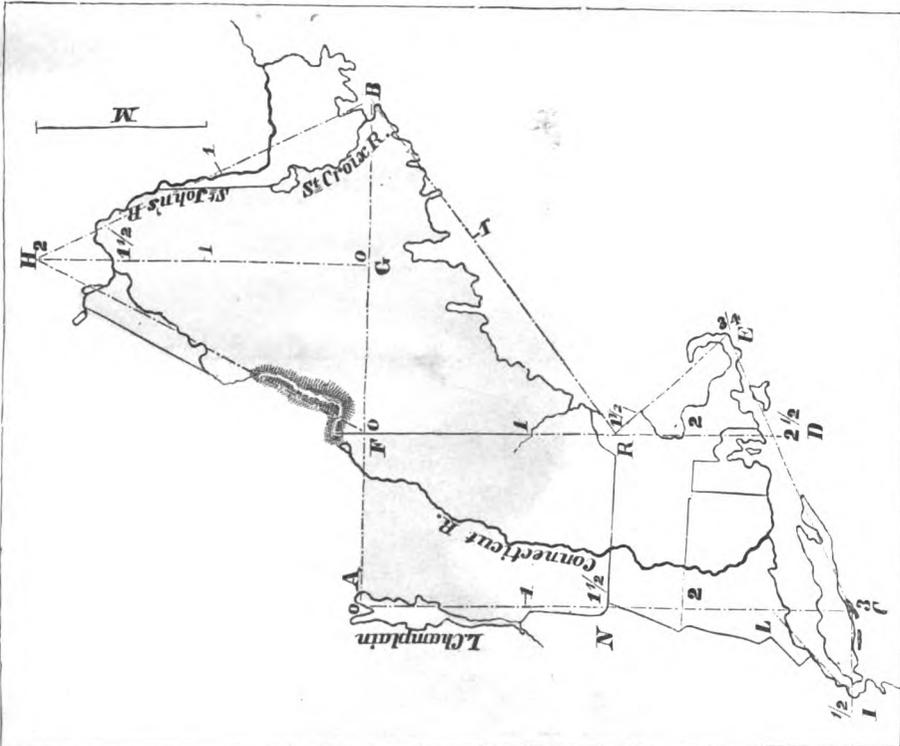
* Founded by the Dutch.

TO DRAW THE UNITED STATES IN SECTIONS AND ENTIRE.



TO DRAW MIDDLE ATLANTIC STATES.

1. Draw the square *ABDC*, and *trisect* top and bottom; *M* = 1 section. Length of side on slate $3\frac{3}{4}$ inches; scale 1 inch = 100 miles. Length on black-board $11\frac{1}{4}$ inches.
2. Draw vertical line *BN* = 2 M.; and horizontal *NR* = $\frac{1}{2}$ M.; connect *AR*.
3. Find *S* at 1 M. from *R*, and *T* at 2 M. Find *E* at $\frac{1}{2}$ M. below *B*; connect *EF* and *EG*, and draw the boundaries of New York.
4. Find *JH* at $1\frac{1}{4}$ M. below *AB*; and draw boundaries of *Pennsylvania* and *New Jersey*.
5. Find *K* at 1 M. to the right of *J*; and *L* at $\frac{1}{2}$ M. above *G* on *EG*; connect *KL*, and finish the boundaries of *Maryland* and *Delaware*.
6. Find *O* at $\frac{1}{4}$ M. below *A*; find *P* at $1\frac{1}{2}$ M. to the left of *C*; find *U* at $\frac{1}{2}$ M. above *C*; and *V* at $\frac{1}{2}$ M. from *K* on *KL*. Connect *OPUV*, and draw boundaries of *Virginia* and *West Virginia*.



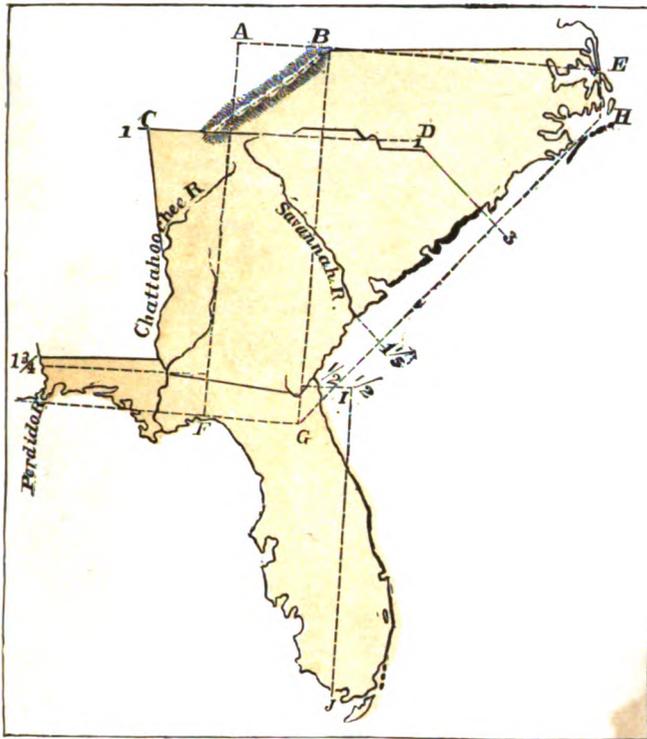
NOTE.—The *New England States* and the *Middle Atlantic States*, are here represented upon a scale twice as large as that of the other group. This larger scale is necessary to show distinctly the form of the very small States in these groups. The "plans for drawing," however, secure the representation of all the sections upon the uniform scale of one inch to one hundred miles.

TO DRAW NEW ENGLAND STATES AND LONG ISLAND.

1. Draw the horizontal line *AB* and *trisect* it. *M* = one Section. Length of this horizontal line on slate 3 inches; Scale 1 inch = 100 miles. Length on black-board 9 inches.
2. Draw vertical lines *AC* = 3 M.; *FD* = $2\frac{1}{2}$ M.; *GH* = 2 M.
3. Find *NR* at $1\frac{1}{2}$ M. below *AF*; connect *FHBR*, and draw boundaries of *Maine*, *New Hampshire*, and *Vermont*.
4. Find *L* at 1 M. below *N*; and *I* at $\frac{1}{2}$ M. to the left of *C*.
5. Connect *LICD*; extend *CD* $\frac{1}{2}$ M. to the right finding *E*; connect *ER*, and draw the boundaries of *Massachusetts*, *Connecticut*, *Rhode Island*, and *Long Island*.

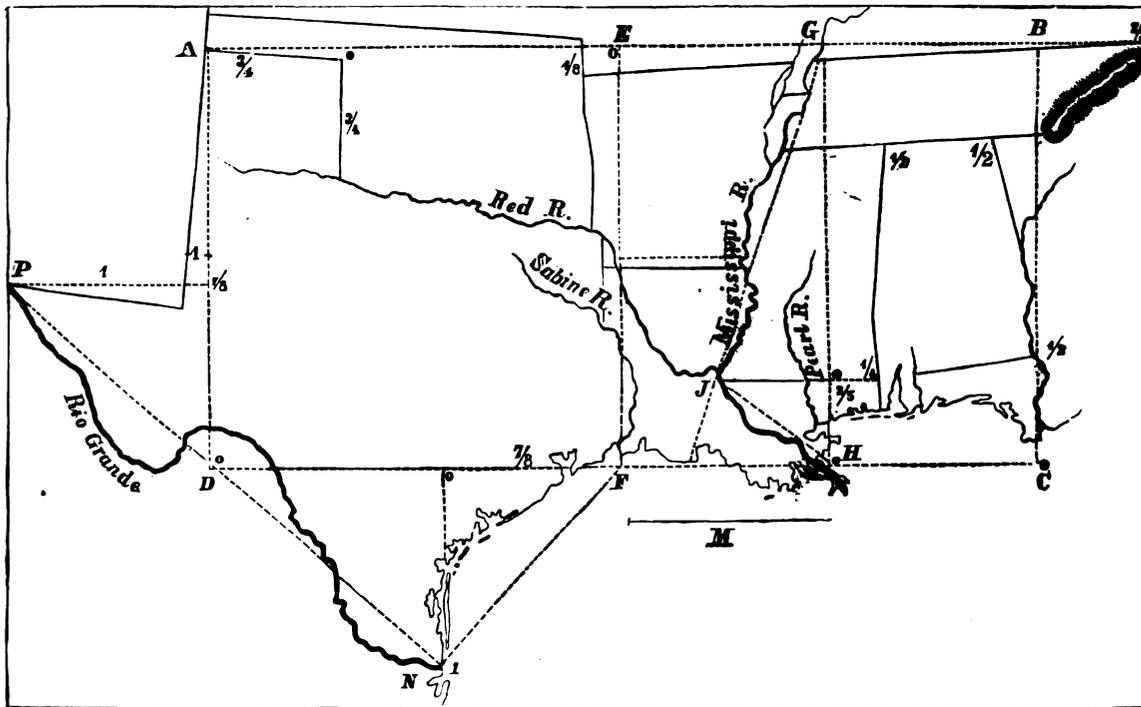
ONE INCH.	Eighths.	Fifths.	Tenths.	Thirds.	Sixths.
1	8	5	10	3	6

NOTE.—Pencil who have not a ruler divided into inches can make a scale like this on paper or card-board.



TO DRAW SOUTH ATLANTIC STATES.

1. Draw a horizontal line (*AE*), and divide it into *four* equal parts. Length on slate $4\frac{1}{2}$ inches; scale 1 inch = 100 inches. Length on black-board $13\frac{1}{2}$ inches. *M* = one division of *AE*.
2. At each end of *AE*, and at the left point of division, draw vertical lines downward;—*AF* and *BG* each equal to *AE*, and *EH* equal to $\frac{1}{2}$ *M*. Connect *HGF*, and draw the coast at the left of *GH*.
3. On *GH*, find points measuring from *G*, at $\frac{1}{2}$ *M*, $1\frac{1}{2}$ *M*, and 3 *M*. Opposite these points are, the *Mouth of St. Mary's R.*; *Mouth of Savannah R.*; and *Northeast Boundary of South Carolina*.
4. Draw a horizontal line (*CD*), at 1 *M*, below *AE*, extending it 1 *M*. to the right of *BG*, and a trifle less than 1 *M*. to the left of *AF*.
5. Find the southwest point of *North Carolina* on *CD*, at $\frac{1}{2}$ *M*. to the left of *AF*; and the northeast point of *South Carolina*, a trifle below and to the right of *D*. Draw boundaries of these States.
6. At *C*, find the northwest point of *Georgia*; find the southwest point nearly $\frac{1}{2}$ *M*. above and to the left of *F*, and draw boundaries.
8. Find the *mouth of Perdido river* $1\frac{1}{2}$ *M*. to the left of *F*. Find *I* opposite the mouth of *St. Mary's river*, at $\frac{1}{2}$ *M*. from *GB*, and draw a vertical line (*IJ*) downward, equal to the distance from *I* to *Perdido river*. Draw *Florida* (See page 73).



TO DRAW THE GULF STATES, TENNESSEE, AND ARKANSAS.

1. Draw an oblong (*ABCD*) the length double the breadth. Size on slate paper 10 by 5 inches; scale 1 inch to 100 miles. Size on black-board 30 by 15 inches. *M* = $\frac{1}{2}$ *AB*.
- NOTE.—When slates are small, the smaller States, which form the right-hand half of the oblong, can be drawn upon one side, and *Texas* upon the opposite side.
2. Bisect the oblong by a vertical line (*EF*); also bisect the right-hand half by a vertical line (*GH*).
3. Find the *west bend of Mississippi river* (*J*) $\frac{1}{2}$ *M*. above, and a trifle more than $\frac{1}{2}$ *M* to the left of *H*. Connect *GJH*, and draw the river.
4. Find the *southwest point of Tennessee* on *Miss. river*, at $\frac{1}{2}$ *M* below *G*, and *northeast point* at $\frac{1}{2}$ *M* to right of *B*. Draw boundaries of *Tenn.*

5. Find the *northwest point of Alabama* $\frac{1}{2}$ *M* to the right of *Miss. river*; the *northeast point* $\frac{1}{2}$ *M* farther to the right; the *southeast point* on *BC* at $\frac{1}{2}$ *M* above *C*; *Southwest point* $\frac{1}{2}$ *M* above and to the right of *H*. Draw boundaries of *Alabama* and *Mississippi*.
6. *N. W. point of Arkansas* $\frac{1}{2}$ *M* to left, and a less distance below *E*. Length of *N. boundary* 1 *M*, of *W. boundary* a trifle less. *S. W. point of Louisiana* just above *F*, and *southeast point* a little below and to the right of *H*. Draw boundaries of *Ark.* and *La.*
7. Find *Mouth of Rio Grande* (*N*) 1 *M* below and $\frac{1}{2}$ *M* to the left of *F*. Find *W. point of Texas* (*P*) $\frac{1}{2}$ *M* above and 1 *M* to the left of *D*.
8. Find the *Southwest point of Indian Territory* $\frac{1}{2}$ *M* below and to the right of *A*. Draw northern boundary of *Texas* and of *Ind. Ter.*

TO DRAW CENTRAL STATES EAST OF THE MISSISSIPPI.



1. Draw a square (*ABDC*). Length of side on slate $5\frac{1}{2}$ inches, scale 1 inch = 100 miles. Size on black-board $16\frac{1}{2}$ inches. Divide *AB* in four equal parts (at *E*, *F*, and *G*). *M* equal one division.

2. At *A* add *AL* equal to 2 *M*, and connect *LB*. Find *Strait of Mackinac* (below *N*) near *LB* at 2 *M* from *B*; and *Sault St. Mary* a trifle above and to the right of *N*.

3. Find *Keweenaw* peninsula midway between *L* and *N*. Find, at $\frac{4}{5}$ *M* above this point, *North Shore of L. Superior*; and at $\frac{1}{2}$ *M* below *South Shore of Lake Superior*. Find the *head of L. Superior* at $\frac{3}{5}$ *M* below, and $\frac{1}{5}$ *M* to the left of *L*. Draw this Lake.

4. Bisect *EF* at *O*. At $1\frac{1}{2}$ *M* below *O* find *South Shore of Lake Michigan*, and the southwest point of the State. Draw *L. Michigan*; average breadth about $\frac{1}{2}$ *M*.

5. Find, at 1 *M* above *G*, *North Shore of L. Huron*. Find, at $\frac{1}{2}$ *M* above *B*, east point of *Georgian Bay*. Find, at $\frac{2}{3}$ *M* below and a trifle to the right of *G*, the foot of *L. Huron*. Draw *L. Huron* and *L. St. Clair*.

6. Draw a horizontal line (*HJ*) at 1 *M* below *AB*. At *J* is *Southeast Shore of L. Erie*, and $\frac{1}{3}$ *M* below *I* is the *Southwest Shore*. Draw *L. Erie*.

7. Find *Mississippi river* at $\frac{1}{2}$ *M* to the right of *C*, and draw *Mississippi* and *St. Croix* rivers, observing the points at which the *Miss.* crosses *AC*.

8. Find *Ohio river* at $\frac{3}{5}$ *M* below *J*; *mouth of Big Sandy* at 1 *M* above and $\frac{2}{3}$ *M* to the left of *D*; *north bend of the Ohio*, $\frac{2}{3}$ *M* farther to the left, and $\frac{1}{2}$ *M* above; and *mouth of Wabash* 1 *M* to the right of *C* and $\frac{1}{2}$ *M* above. Draw the *Ohio* river.

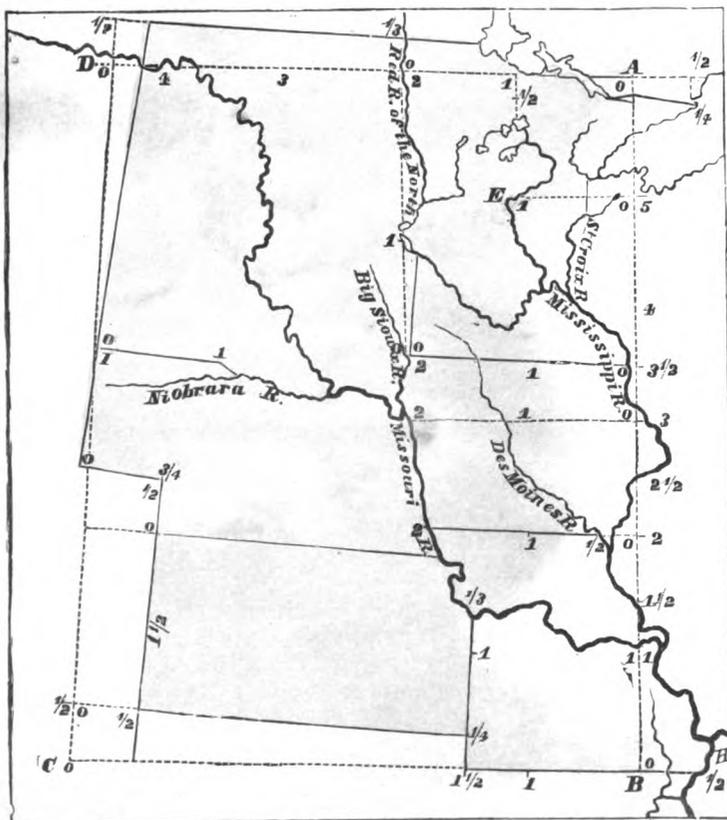
9. Draw northern boundary of *Illinois* on *HI*. Draw *Wabash* river and finish eastern boundary.

10. Find the *northeast point* of *Indiana* at $\frac{2}{3}$ *M* to the left of *I*, and $\frac{1}{2}$ *M* below *HI*. Finish boundaries of *Indiana* and *Ohio*.

11. Find *East point of Kentucky* at $\frac{1}{2}$ *M* above and to the left of *D*; *Southeast point* 1 *M* to the left of *D*. Draw boundaries.

12. Draw northern boundaries of *Wisconsin*.

TO DRAW CENTRAL STATES WEST OF THE MISSISSIPPI.



1. *Draw a vertical line, *AB*, and divide it into six equal parts. Length on slate $8\frac{1}{2}$ inches; scale 1 inch = 100 miles. Length on black-board $24\frac{1}{2}$ inches. *M* = 1 division of *AB*.

2. Draw Horizontal lines to the left,—*BC* = 5 *M*, *AD* = 4 $\frac{1}{2}$. Connect *DC*.

3. Find the lakes forming sources of the *Mississippi* at 1 *M* to the left and $\frac{1}{2}$ *M* south of *A*. Find *H* at $\frac{1}{2}$ *M* to the right of *B*, and *E* 1 *M* below and to the left of *A*. Draw the *Mississippi* river.

4. Draw southern boundary of *Minnesota* (2 *M* in length); southern boundary of *Iowa* (extending $1\frac{1}{2}$ *M* westward from *Des Moines* river); and southern boundary of *Missouri*.

5. Draw western boundary of *Minnesota* (2 *M* west of *AB*); and western boundary of *Missouri* ($1\frac{1}{2}$ *M* west of *AB*).

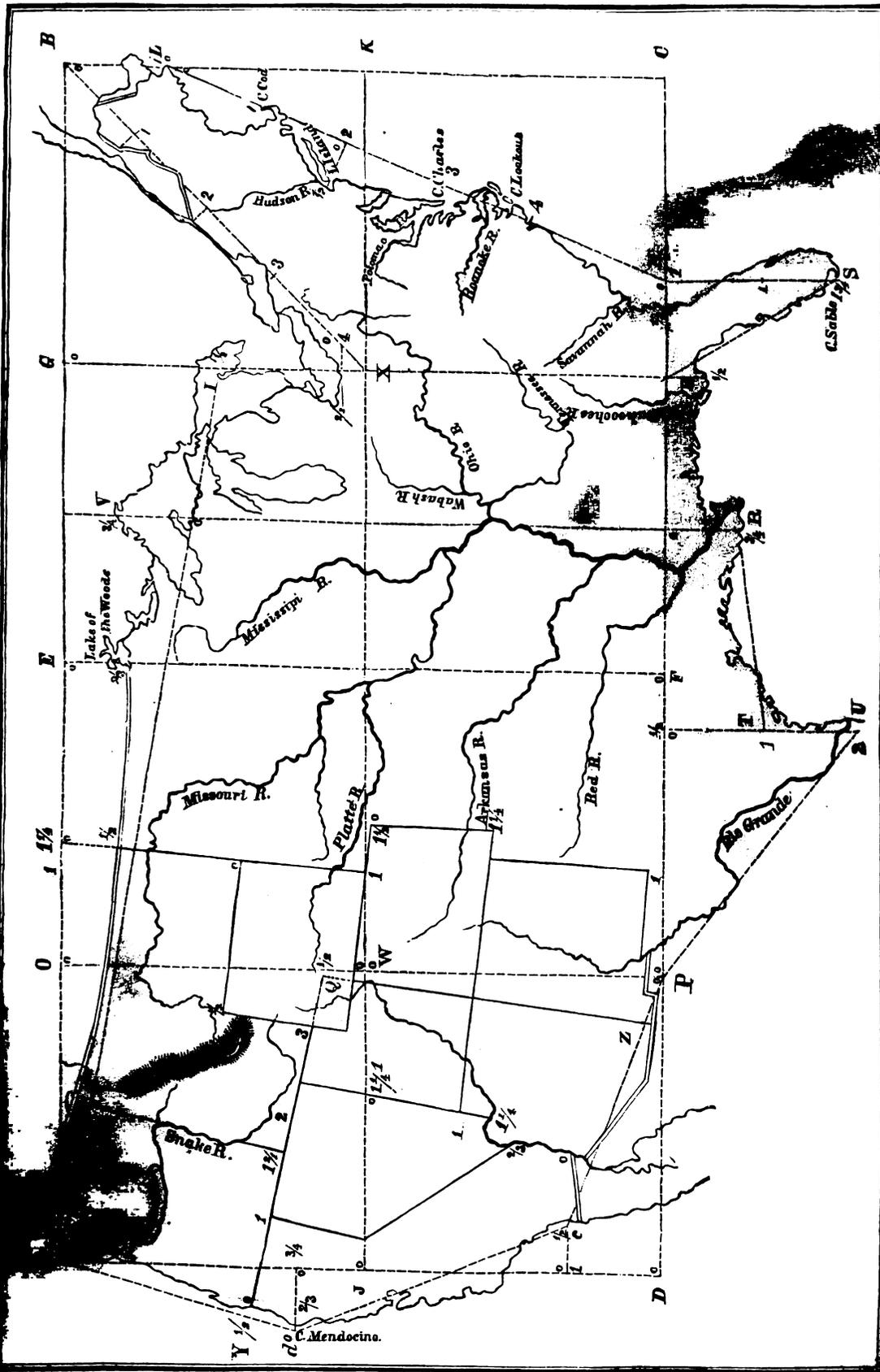
6. Draw *Missouri* river, and also *Big Sioux* river; mouth of the latter 2 *M* west of the middle point of *AB*.

7. Find the southwestern point of *Kansas* at $\frac{1}{2}$ *M* above and to the right of *C*; western boundary of *Kansas* is $1\frac{1}{2}$ *M* in length.

8. Draw western projection of *Nebraska* $\frac{1}{2}$ *M* farther north, and 1 *M* in breadth. Northern boundary extends 1 *M* east in straight line. Mouth of *Niobrara* 1 *M* farther east, and $\frac{1}{2}$ *M* southward. Complete the boundaries of *Nebraska*.

9. Find the *northeast point* of *Minnesota* at $\frac{1}{2}$ *M* east and $\frac{1}{2}$ *M* south of *A*; *northwest point* $\frac{1}{3}$ *M* above *AD*. *Northwest point* of *Dakota* at $\frac{1}{2}$ *M* above and $\frac{1}{2}$ *M* to the right of *D*. Finish the boundaries of *Minnesota* and *Dakota*.

* NOTE.—This line is the same as the line *LC* in the preceding group, with the same subdivisions; and by means of it the two groups may be connected, giving the whole section in one map.



TO DRAW PACIFIC STATES AND TERRITORIES.

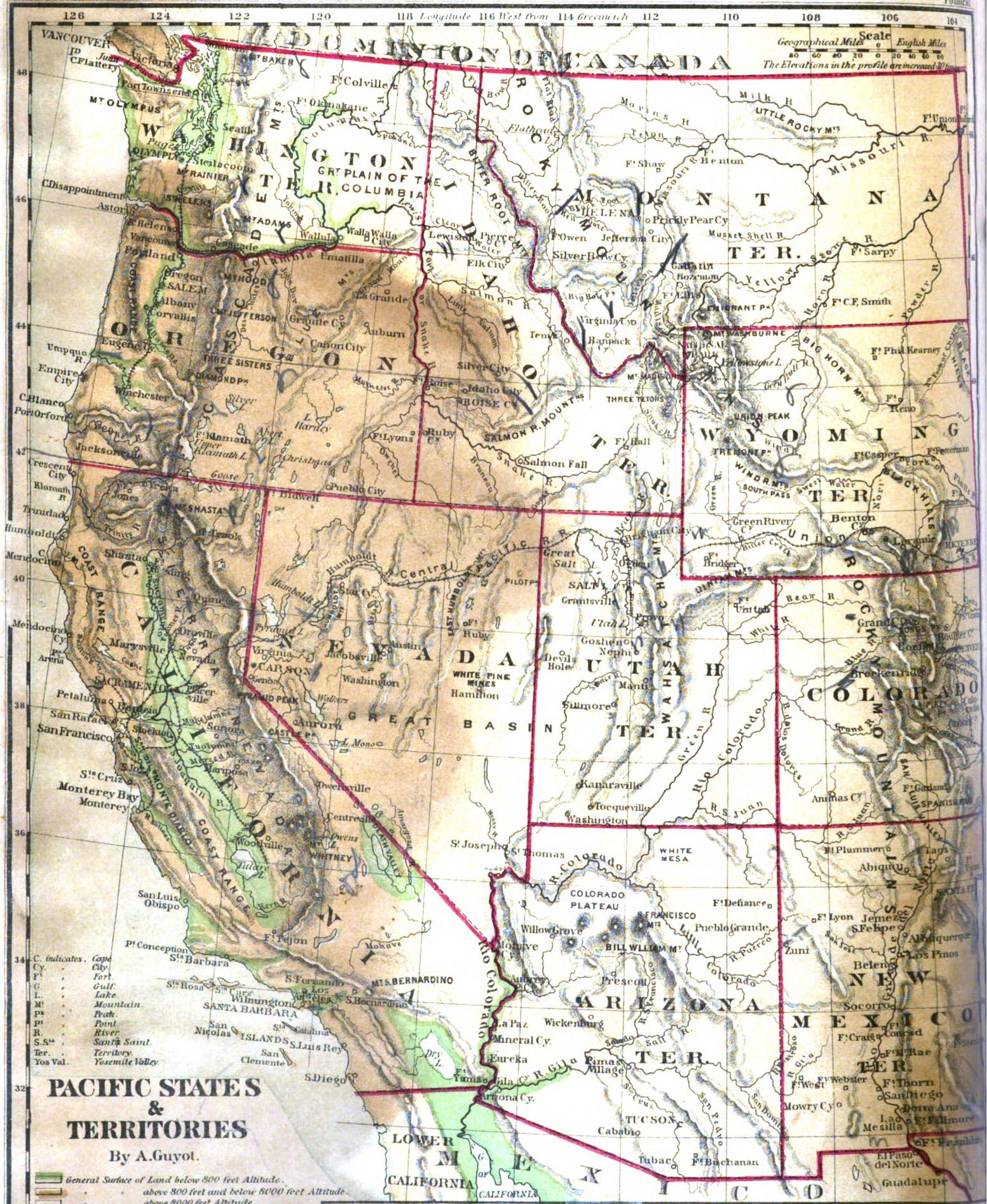
1. Draw the oblong *AOPD*; height double the breadth. Size for paper 13 by 6½ inches; scale 1 inch = 100 miles. Size for black-board, 39 by 19½ inches. *M* = ½ *AO*.
NOTE.—A smaller size will be required for slate; 6½ by 3¼ inches will give the same scale as that upon which the United States is to be drawn, viz., ½ inch = 100 miles.
2. Draw the *Southern boundary* and the *Pacific Coast* according to directions, 7 and 8 under *United States* opposite.
3. Extend *AO* ½ *M* to the right, and extend *JW* just 1 *M*. Draw *Northern boundary* of the section, and *Eastern boundary* of *Montana* and *Wyoming*.
4. Extend *DP* 1 *M* to the right, and draw the *Eastern boundaries* of *Mexico* and *Colorado*.
5. Find *Q* at ½ *M* above and a trifle to the left of *W*; find *Y* at ½ *M* above *d*; find *Z* at ½ *M* to the left of *P*; connect *YQZ* for *Northern boundary* of *California*, *Nevada*, and *Utah*; and *Eastern boundary* of *Utah* and *Arizona*.
6. Draw the *Eastern boundary* of *California* and *Nevada*, and finish *Colorado* river.
7. Draw *Southern boundary* of *Utah* and *Colorado*; also *Southern and Eastern boundaries* of *Wyoming*.
8. Draw *Columbia* and *Snake* rivers; finish the boundaries of *Oregon* and *Washington*; and draw the *Western boundary* of *Montana*.

TO DRAW THE UNITED STATES.

1. Draw an oblong, *ABCD*, length double the height. Size for paper 13 by 6½ inches; scale 1 inch = 100 miles. Size for black-board 39 by 19½ inches.
NOTE.—Pupils who desire to draw upon slates will be obliged to take a smaller scale. They may take 6½ by 3¼ inches for the oblong, which will give ½ inch = 100 miles.
2. Divide the oblong into 4 equal parts by vertical lines *OP*, *EP*, and *GH*; also bisect it by the horizontal line *JK*. Trisect *BK* for *M*.
3. *NORTHERN BOUNDARY.* Connect *BX*; measure upon it from *B* to the length of 1 *M*, 2 *M*, 3 *M*, and 4 *M*; and draw *Lake Erie*, *Lake Ontario*, *St. Lawrence* river, and *Northern boundary* of *New England*.
4. Bisect *GX* at *I*; connect *AI*. Draw *VR* midway between *EF* and *GH*, and draw *Lake Superior*, *Lake Michigan*, *Lake Huron*; and finish *Northern boundary*.
5. *EASTERN COAST.* Find *N* at 1 *M* to the right of *H*; find *S* at ½ *M* below *N*; and *L* at 1 *M* below *B*. Connect *LNS*; measure from *L*, 1, 2, 3, 4; and draw coast.
6. *SOUTHERN BOUNDARY.* Find *R* at ¼ *M* below the middle of *FH*; find *T* at ½ to the left and 1 *M* below *F*, and *U* 1 *M* below *T*. Connect *UTR* and *HS*, and draw *Gulf Coast*. Connect *UP*, and draw the *Rio Grande*.
7. Find *c* at 1 *M* above, and ½ *M* to the right of *D*. Connect *cP*, and finish *Southern boundary*.
8. *PACIFIC COAST.* Find *d* at ¼ *M* above and ½ *M* to the left of *J*. Connect *dO*, and draw *Pacific Coast*.

126 124 122 120 118 Longitude 116 West from 114 Greenwich 112 110 108 106

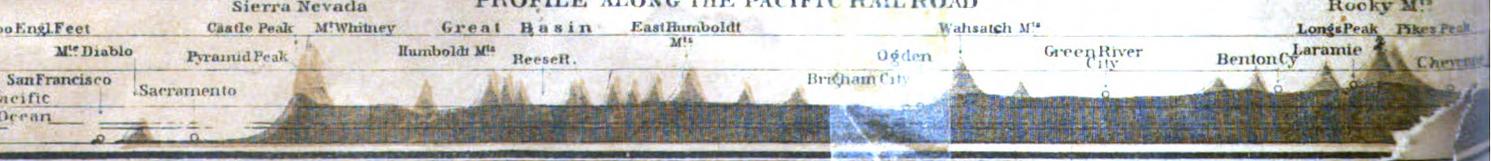
Scale Geographical Miles English Miles
80 60 40 20 0 20 40 60 80
The Elevations in the profile are increased 20%



- C. indicates Cape
- Cy. City
- F. Fort
- G. Gulf
- L. Lake
- M. Mountain
- P. Peak
- Pt. Point
- R. River
- S. S. Saint
- Ter. Territory
- Yos. Val. Yosemite Valley

PACIFIC STATES & TERRITORIES
By A. Guyot.

General Surface of Land below 800 feet Altitude.
above 800 feet and below 8000 feet Altitude.
above 8000 feet Altitude.



PACIFIC STATES AND TERRITORIES.

NOTE.—Parallels are numbered at the right and left margins of the map, and meridians at the top and bottom.

What parallel forms the northern boundary of this section? *Ans.* The parallel of 49° North Latitude. What parallel nearest the southern boundary? *Ans.* 32° N. Lat. What part of the boundary lies south of this parallel? What part north of this parallel? How many degrees of latitude covered by this section? *Ans.* A number of degrees equal to the difference between 32° N. Lat. and 49° N. Lat., which is 17°.

What meridian forms the eastern boundary of Montana and Wyoming? *Ans.* The meridian of 104° West Longitude. What meridian passes over the mouth of Columbia river? How many degrees of longitude are embraced in the northern half of this section? *Ans.* The difference between 104° W. Lon., and 124° W. Lon., which is 20°. What points on the coast west of the meridian of 124° W. Lon.? Which projects farthest west?

Name the islands lying off the coast south of Point Conception. What is the entire cluster called?

Mountain Ranges.—In what directions, and across what States or Territories does each extend, and to what system does it belong? Rocky Mts.? Bitter Root Mts.? Cascade Mts.? Sierra Nevada? Wahsatch Mts.? Uintah Mts.? Salmon River Mts.? Coast Range? Big Horn Mts.? In what State or Territory, and in what direction from the nearest high range are the Humboldt * Mts.? East Humboldt Mts.? San Francisco and Bill William Mts.? Mt. San Bernardino? Sierra del Monte Diablo? Black Hills?

Mountain Peaks.—In what range, and within what State or Territory is Mount Baker?

Answer. Mt. Baker is a peak in the Cascade Mts., situated in the northern part of Washington Ter.

Mt. Hood? Mt. Shasta? Pyramid Peak? Mt. Adams? Mt. Whitney? Fremont Peak? Long's Peak? Spanish Peaks? Castle Peak? Mt. Jefferson? Mt. Madison? Three Sisters? Three Tetons? Union Peak?

Rivers.—What three streams rise near Union and Fremont Peaks? In what direction, and with what other streams does each unite? † Where does each enter the ocean waters? Where is the source of the Yellowstone river? What two streams form the head waters of the Missouri? (*Ans.* Madison and Jefferson.) Where do they rise, and in what direction do they flow? (Why do the Wind river, Madison, and Jefferson go to the east and north, while the Green and Snake rivers, rising in the same region, go to the south and west?)

What two streams form the head waters of the Rio Colorado? Where do they

rise, and in what direction do they flow? What other important streams rise in the same region? (*Ans.* South Fork of Platte, and Arkansas.) In what direction do they flow and what streams (—see Map of U. S., page 50) do they enter? (Why is their course the opposite of that of the Blue and Grand, which rise so near them?)

What stream rises in the valley northwest of Long's Peak? What stream rises in the San Luis Valley southwest of Pike's Peak? In what direction do these streams first flow, and what waters (See Map, page 50) do they finally enter? Why are there streams flowing from this mountain-knot toward every point of compass?

Describe the course of the following streams, stating in what State each is.

Umpqua; Rogue; Klamath; Fel; Russian; Sacramento; San Joaquin; Feather; Mokelumne; Tuolumne; Merced; Salinas.

Lakes.—Describe the position of the following lakes. Great Salt L.; Upper Klamath L.; Pyramid L.; Tulare L.; Humboldt L.; Silver L.; Owens L.; Walker L.

Towns and Cities.—Describe the location of the following towns, stating the direction of each from the capital of its State or Territory.

SACRAMENTO.	SALEM.	CARSON CY.	OLYMPIA.	TUCSON.
San Francisco.	Portland.	Virginia.	Steilacoom.	Prescott.
Marysville.	Astoria.	Austin.	Vancouver.	La Paz.
San José.	Oregon.	Aurora.	Walla Walla.	Gila.
Stockton.	Corvallis.	Hamilton.	Cascade.	Mohave City.
Los Angeles.	Eugene City.			

SALT LAKE CITY.	SANTA FÉ.	DENVER.	CHEYENNE.	HELENA.
Provo.	Albuquerque.	Golden City.	Laramie.	Bannack City.
Ogden.	La Mesilla.	Breckenridge.	BOISÉ CITY.	Gallatin.
Brigham City.	Taos.	Carson City.	Idaho City.	Virginia City.
Goshen.	Zuni.	Grand City.	Lewiston.	

What do you notice in regard to the position of all the towns named in Utah? Can you think of any reason why these towns have grown up along the western foot of Wahsatch Mts.? *Ans.* This is the most fertile part of Utah, being watered by streams that flow down the Wahsatch Mts. What occupation do you suppose is carried on in the places named in Colorado? Why? (See page 85, **Territories, II.**)

Name in order all the above-mentioned towns in each list.

Why are there more towns among the Rocky Mountains than in other parts of the Territories crossed by those Mountains?

Trace the Pacific R. R. across this section, stating what Territories and States it crosses, in what part of each it is, and what towns or cities on or near it.

SOUTH AMERICA. (See Map, page 20.)

NOTE.—In learning the supplementary exercises upon maps in the body of the book, pupils will do well to make a copy of the questions assigned for the lesson, and place it beside the map for study.

What is the Latitude of C. Gallinas? *Ans.* About 12½° N. Lat. The Latitude of C. Horn? *Ans.* About 55° S. Lat. Longitude of C. St. Roque? *Ans.* About 35° W. Lon. The Longitude of Punta Aguja? *Ans.* About 81° W. Lon. How many degrees of Latitude and Longitude covered by South America in its greatest extent?

Rivers.—Name all the rivers entering the sea between the Isthmus of Panama and C. St. Roque, commencing at the most western. Name the principal tributary of the Magdalena. Name in order the streams entering the Orinoco, commencing with that one nearest its source, and stating on which bank of the Orinoco they enter. Name in their order streams entering the Amazon on its left bank, commencing with the Pastaza. Name those entering upon the right bank, commencing with the Huallaga.

Why does the Amazon flow toward the east? Where are the sources of all the longer streams which enter the Amazon above the Rio Negro and the Tapajos? Where are the sources of the Tapajos, Xingu, and Tocantins? Where are the sources of the Rio Negro, Branco, and Trombetas? In what general direction do all the streams entering the Amazon on the right bank flow? Why is this? In what direction do those entering upon the left bank flow? Why? How must the belt of the country along the borders of the Amazon compare in height with that farther north and farther south? Why do you think so? Trace the water shed (—see page 16, VI.) between the basin of the Orinoco and the Amazon; where is it? How do you know you are correct? Trace the water shed between the Amazon basin and that of the La Plata. Where is it, and how do you know this is correct?

Name the streams entering the ocean between C. St. Roque and the Gulf of St.

* *Example.* The Humboldt mountains are situated in the northwestern part of Nevada, east of the northern part of the Sierra Nevada. Their general direction is north and south.

† *Example.* The Wind River, which forms the head waters of the Big Horn, flows toward the east and northeast, unites with the Yellowstone, and enters the Missouri on the eastern boundary of Montana.

Matias. What do you observe about the length of those between the San Francisco and the La Plata? Why is this? What is the principal stream of the La Plata system? Name its tributaries on the left bank, commencing at the most northern. Where are their sources? Name in the same order the tributaries entering on the right bank. Where are their sources? What do you notice in regard to the size of the streams entering the Pacific? Why is this?

CITIES AND TOWNS.—The following are the principal cities and towns in the several countries of South America; describe the location of each. Name them in the order in which they stand in the lists.

BRAZIL.		COLUMBIA.	PERU.
RIO JANEIRO.	Matto Grosso.	BOGOTA.	LIMA.
Pernambuco.*	San Paulo.	Popayan.	Callao.
Bahia.	Para.	Cartagena.	Cuzco.
Parnahyba.	Porto Alegre.	Socorro.	Arequipa.
Maranhão.	Diamantina.	Panama.	Huamanga.

ECUADOR.	VENEZUELA.	BOLIVIA.	ARGENTINE REPUBLIC.
QUITO.	CARACAS.	SUCRE (also called	BUENOS AYRES.
Guayaquil.	Valencia.	Chuquisaca).	Rosario.
Cuenca.	Maracaibo.	La Paz.	Cordova.
Riobamba.	New Barcelona.	Potosí.	Tucuman.
Loja.	Angostura.	Cochabamba.	Mendoza.

CHILI.	PARAGUAY.	GUIANA.	URUGUAY.
SANTIAGO.	ASUNCION.	GEORGETOWN.	MONTEVIDEO.
Valparaiso.	Villa Rica.	PARAMARIBO.	Colonia.
Concepcion.	Concepcion.	CAYENNE.	Maldonado.
San Felipe.	Humaita.		

* Composed of two towns, Recife and Olinda, three miles apart.

EASTERN BRITISH PROVINCES OF N. AMERICA

Physical and Political

By A. Guyot.



Scale. English Miles.
0 20 40 60 80 100 120

General Surface of Land below 800 feet Altitude.
Rail Roads

PROFILE FROM JAMES BAY TO PORTSMOUTH. White M^s Height of Land. Green M^s Height of Land. Blue M^s Height of Land. Red M^s Height of Land. Yellow M^s Height of Land. Orange M^s Height of Land. Purple M^s Height of Land. Grey M^s Height of Land. Black M^s Height of Land.

EASTERN BRITISH PROVINCES.

What elevation forms the northern boundary of Quebec? What is the height of land? (See Map, P. 28, 3.) What is the elevation at the east of the Height of Land called? Of what does the Dominion of Canada consist? (See page 90, Table I.) Which of the eastern provinces is the most extensive? Which provinces are the smallest? Which province is farthest west?

What forms the western boundary of Ontario; the northern boundary; the southern boundary? What forms the boundary between Ontario and Quebec?

Describe the course of the Saguenay R.; Gatineau R.; Moisie R.; St. John's R. Where is L. Nipissing? Grand L.? L. St. John?

What body of water on the southern border of New Brunswick? What body of water forms its eastern boundary? What islands and peninsula separate the Gulf of St. Lawrence from the Atlantic ocean? What two large islands enclosed within the G. of St. Lawrence? Where are the Magdalen Ids.? Miquelon Ids.?

Where is the Strait of Belle Isle? Where Cape Gaspé? C. Sable? C. Bauld? C. North? C. Charles? C. Race? C. Ray? Where is Placentia Bay? Trinity Bay?

How is the Dominion of Canada governed? (See page 90, Table I.) Of what province does Cape Breton Island form part? Where is Prince Edward Island? How is New Foundland governed? To what country do Anticosti and the Magdalen Ids. belong? *Ans.* To the Dominion of Canada.

Cities and Towns.—What and where is the capital of the Dominion? Of Ontario? Of Quebec; of New Brunswick; of Nova Scotia; of Prince Edward Island; of New Foundland?

Where is Montreal?	Three Rivers?	St. John (Quebec)?	Annapolis?
Kingston?	Sherbrook?	St. John (New Brunswick)?	Truro?
Hamilton?	Point Levi?		Harbor Grace?
London?	Prescott?	St. Andrews?	Heart's Content?
Port Sarnia?	Sorel?	Woodstock?	St. John's?

Make and commit to memory a list of the above-named towns in each province.

NORTH AMERICA. (See Page 26.)

What parallel passes along the northern coast of North America? What parallel passes just north of the Isthmus of Panama? How many degrees of latitude covered by North America?

What meridian crosses the Gulf of St. Lawrence? What meridian crosses Behring St.? *Ans.* The meridian of 170° W. Lon. How many degrees of longitude covered by the northern part of North America? What meridian passes over the most eastern part of Florida, and near the eastern coast of Hudson Bay? Where does this meridian cross South America? What meridian passes nearest the centre of North America; of South America?

Mountains—Name the three great mountain systems of North America. Describe the position and direction of the Rocky mountain system; the system of the Sierra Nevada; the Appalachian mountain system.

Rivers and Lakes.—What is the greatest river system of North America? Describe the course of the Mississippi. Why has it this direction? Name the streams which enter it from the west, beginning with the most northern. Where are their sources, and what is the general direction of these streams? Why this direction? What streams from the east convey water to the Mississippi?

Describe the course of the Mackenzie R. and name its tributary streams and lakes. Describe, in the same manner, the St. Lawrence; the Nelson; the Yukon; the Columbia; the Colorado; the Rio Grande del Norte. What streams and lakes form almost a continuous water passage from the mouth of the Mackenzie to the mouth of the Mississippi? What streams and lakes form a similar passage from the mouth of the St. Lawrence to that of the Mississippi? How does each of these chains of streams and lakes compare in direction with the mountain system nearest it?

AFRICA. (See Map, Page 32.)

What is the latitude of Cape Bon? *Ans.* About 37° N. Lat. What is the latitude of Cape Agulhas? *Ans.* About 35° S. Lat. Over how many degrees of latitude does Africa extend? What is the longitude of C. Guaraifui? *Ans.* Nearly 51° E. Longitude. What is the longitude of C. Verd? *Ans.* About 18° W. Longitude. Over how many degrees of longitude does Africa extend? *Ans.* Over the sum of 18° and 51°, equal to 69°. Near what cape does the Equator cross Africa? Over what lake and river mouth does it pass?

Describe the location of the following mountains: Atlas; Kong; Nieuweveld; Draken Berge; Muxinga; Crystal; Cameroon; Blue; Mt. Kilima Njaro; Mt. Kemia; Mt. Mfumbiro.

Name the streams of Africa which enter the Indian Ocean, beginning at the north. What do you observe in regard to the length of most of those streams? Why is this? Which is the longest stream entering the Indian Ocean? Why is it longer than the others? Name the streams entering the Atlantic, beginning at the most northern. Which is the longest of these streams? Describe its course and name its tributaries.

What great stream of Africa enters the Mediterranean Sea? Describe the course of this stream, and name its tributaries, beginning at the most southern. On which side does it receive most tributaries? Where are the sources of these tributaries? What is the reason (see page 34, III., 1.) the Nile has no tributaries which have their source farther north?

Name the lakes connected with the Nile. What cataract in the Nile near Victoria Nyanza? Describe the appearance (see picture page 15) of these falls and the country around them. Where are the Karuma Falls? What great fall in the course of the Zambesi? What lake connected with the Zambesi river? Where is lake Tchad? In what important respect does it differ from the other lakes you have named?

Countries.—Name the countries which border on the Mediterranean and Red Seas, beginning with the most westerly. What country south of Tripoli? What

country on the Nile south of Nubia? Which of all these countries are independent (see page 91, table IX.), and what is their government? To what nations do the others belong? What race inhabits all these countries? How do the people of the Sahara live? (see page 35, "North Africa, Sahara.") In what part of Sahara are the tribes of Moors; the Tuaregs; the Tebu? Why do not these people remain in one place and carry on agriculture? (see page 34, III., 1.)

What race inhabit Africa south of the Sahara? (see page 36, r.). What republics (see page 91, table X.) in Africa? Where is each, and by whom peopled? What is the capital of each? What kingdoms in Central Africa are partly civilized? (see same table.) Where is each situated? What are the principal European colonies in Africa? Where is each and to whom does it belong? By what nation was Cape Colony founded?

Cities and Towns.—How situated and in what country is each? Commit to memory the list in the order in which the names are given.

MAROCCO.	TRIPOLI.	CAIRO.	Khartoom.	Kisanga.
Fez.	Ghadames.	Gheeseli.	Gondokoro.	Mozambique.
ALGIERS.	MURZUK.	Sioot.	Gondar.	Cape Town.
Constantine.	BENGHAZY.	Assouan.	Juba.	Port Natal.
TUNIS.	Alexandria.	Berber.	Mombas.	
Mossamedes.	Abeokuta.	Axim.	Sokoto.	Timbuctoo.
Novo Redondo.	Oyo.	Monrovia.	Tintellust.	Kano.
San Paulo de Loanda.	Abomey.	Free Town.	Kuka.	Kobbeh.
Kabenda.	Kufiassi.	St. Louis.	Wara.	

What is the character of the towns in Central and Southern Africa? *Ans.* The towns on the coast are almost wholly trading posts or colonies. Those between the Kong mountains and the coast are negro capitals; those in Soudan and Sahara are either capitals, or centres of caravan trade between the Mediterranean cities and Central Africa.

AUSTRALIA.

(See Map, Page 37.)

What parallel passes over Bass Strait? What is the latitude of Torres Strait? What is the latitude of the Tropic of Capricorn? Over how many degrees of latitude does Australia extend? How many degrees of longitude does it extend? How many degrees of longitude embraced within Australia? How many degrees of longitude embraced within Australia? How many degrees of longitude embraced within Australia?

What large islands are crossed by the equator? Which is farthest west? Which is farthest east? What smaller island crossed by the equator east of Celebes? What is the name of the group to which it belongs? What great island divides Australia? What meridian crosses it in the centre? What meridian crosses over Celebes? What meridian crosses the central part of Sumatra?

What large cluster of islands north of Celebes? Which is the most northern island of the group? What parallel (see map of Asia, page 40) passes a line of islands north of Celebes? Between what parallels and meridians is the great A. M. quite general? Between what parallels and meridians is the great A. M. quite general? Between what parallels and meridians is the great A. M. quite general? Between what parallels and meridians is the great A. M. quite general?

What large island south of Borneo? What three islands of considerable size south of Celebes? In what direction from them is the Island of Timor? Which is the most southern of the Philippine Islands? Where is Mindoro? Samar? Panay? Palawan? What island lies north of the eastern extremity of Sumatra? For what is this island noted? *Ans.* For its rich mines of tin. To what nations (see page 91, Table VIII.) do the principal islands lying between Asia and Australia belong?

Cities and Towns.—In what colony of Australia and how situated is ADELAIDE? SYDNEY? PERTH? Eden? Bathurst? MELBOURNE? BRISBANE? Albany? Portland? Newcastle?

On what islands, and how situated is Bencoolen? Bandjermassin? Macassar? Palembang? Pontianak? Selangan? of this belt of cities? What is the eastern part of the Malay peninsula? What is the name of the island of New Zealand? To what nation (see page 91, Table VIII.) does it belong? What is the name of the capital of New Zealand? What is the name of the capital of New Zealand?

* Write the names in the order in which they are given. D, with a capital mark, south of Frankfort represents Denmark. TOWN?

MEXICO, CENTRAL AMERICA, and WEST INDIES.

What meridian crosses the Isthmus of Panama? Over what places does this meridian pass in North America? Over what places in South America? What parallel passes near the northwestern point of Mexico? (See map, page 96.) What parallel passes just north of the Isthmus of Panama? What capital city in Central America under this parallel? Through how many degrees of latitude do Mexico and Central America extend? What is the longitude of the northwestern point of Mexico? *Ans.* 117° W. Lon. Over how many degrees of longitude do Mexico and Central America extend? What is the direction of their greatest extent?

What body of water enclosed in the western part of Mexico? What body of water on its eastern boundary? What two peninsulas form part of Mexico? In what direction does each extend, and what waters does it separate? Where is Cape San Lucas? Cape Sable? Cape Catoche? Cape Gracias? Cape San Antonio?

What large islands north of the Caribbean Sea? Name the four greater Antilles. What cluster of small islands lies north of Cuba and Hayti? In what direction do those islands extend? Name the three larger Bahama Islands lying nearest to Florida? In what part of the group is Great Abaco? Eleuther? Long Id.? Acklin? Great Inagua? Nassau? Turk's Island? S. Salvador?

To what nation (see p. 90, Table III.) do the Bahama Islands belong? To whom do the Greater Antilles belong? What islands* form a band east of the Caribbean Sea? To what two nations do most of the Lesser Antilles belong? (See initials after names of the islands.) Which of them belong to France? Where

is St. Thomas Island? Margarita? Martinique? Trinidad? Where is Samana Bay?

The following are the principal cities in this region; describe the location of each, and commit each list to memory:

IN MEXICO.		IN CENTRAL AMERICA.	
MEXICO,	Jalapa,	VERA CRUZ,	GUATEMALA,
Puebla,	San Luis de Po-	Oajaca,	COMAYAGUA,
Guadalajara,	tosí,	Acapulco,	SAN SALVADOR,
Guanajuato,	Merida,	Chihuahua,	Quesaltenango,
Queretaro,	Zacatecas,	Guaymas.	Managua,
	Monterey,		SAN JOSE,
			Coban,
			Nicaragua,
			Leon.

IN CUBA.		IN HAYTI.		IN DOMI. REP.		IN JAMAICA.	
HAVANA,	PUERTO PRINCIPE,	PORT AU PRINCE,	SAN DOMINGO,	SPANISH TOWN.			
		Cape Haytien.	Santiago.	Kingston.			

Where are the largest cities of Mexico and Central America located, and why? (See page 30, IV. 3.) Why is the interior of these countries cooler and more healthful than the coast lands? *Ans.* It is cooler and drier because so much higher land than the coast; and it is more healthful because cooler and drier.

ASIA. (See Map, page 40.)

What forms the boundary between Asia and Europe? What circle of the globe (see map, p. 13) passes near the southern point of Malay Pen.? What is the most northern point of Asia? What is its latitude? *Ans.* About 78° N. Lat. How many degrees of latitude covered by Asia?

What is the most eastern point of Asia? What is its longitude? *Ans.* East Cape lies 10° east of the meridian of 180°, hence its longitude is 170° west. What meridian passes over the Ural Mts.? How many degrees of longitude included in the great body of Asia? *Ans.* From 60° East Lon. to the meridian of 180° is 120°, and to 170° W. Lon. is 10° farther; hence the body of Asia covers 130° of longitude.

What is the longitude of the western coast of Asia Minor? *Ans.* About 27° E. Lon. How many degrees of longitude included in the western projection of Asia? *Ans.* The distance between 27° E. Lon. and 60° E. Lon., which is 33°. What meridian crosses Asia nearly in the centre? *Ans.* The meridian of 100° E. Lon. What important cape on the northern coast, and what one on the southern coast, near this meridian?

Describe the location of each of the following important cities and towns, stating to what country each is situated. Commit each list to memory.

IN CHINESE EMPIRE.		IN JAPANESE EMPIRE.	
PEKING,	Fuh-Chau,	YEDDO,	Nagasaki,
Su-Chau,	Ning Po,	Miaco,	Kanagawa,
Nanking,	Shanghai,	Osaca,	Hakodadi.
Canton,	Amoy,	Urga,	Yokohama.
King-te-Ching,	Kingkitao,	Maimatchin.	
	LASSA,		
	Shigatze,		
	Teshi Lembo,		

IN INDO-CHINA. IN CENT. ASIA. IN INDIA.

KESHO,	BANGKOK,	KASHGAR,	CALCUTTA,	Delhi,
HPE,	Moulmein,	Yarkand,	Bombay,	Hyderabad.
SAIGON,	Rangoon,	Turfan,	Madras,	Allahabad,
UDONG,	Ava,	Khamil.	Benares,	Kurrachee,
Cambodia,	MANDALEH.		Lucknow,	Pondicherry.

Name, in order, the cities on or near the Ganges, beginning with the one nearest its source, stating on which bank they lie.

IN WESTERN ASIA.

KELAT,	KHIVA.	Ispahan,	Mecca,	Trebizond,
Candahar,	Samarkand,	Baghdad,	Medina,	Erzerum,
CABOOL,	Astrabad,	MUSCAT,	Damascus,	Angora,
Bokhara,	TEHERAN,	Mocha,	Jerusalem,	Smyrna.

What name (see map, page 44) is given to the region between the Tigris and Euphrates rivers? Where is Armenia? Where is Syria? What name is given to the southwestern part of Syria? *Ans.* That part of Syria lying south of the Lebanon Mts. is called Palestine. Of what empire do these countries form parts? *Ans.* The Turkish Empire. What country south of the eastern portion of the Caucasus Mts.? To whom does it belong? *Ans.* To the Russian Empire.

EUROPE. (See Map, page 44.)

What is the southern point of Europe? What is the latitude of Cape Matapan? What is the latitude of Gibraltar? *Ans.* About 36° N. Lat. What is the most northern point of Europe? What is its latitude? *Ans.* About 71° N. Lat. What part of the American continent between the same parallels? What States and Territories (see map of United States, p. 50) are crossed by the parallel of 36° N. Lat? What meridian passes over the western coast of Ireland? What Capes in the Continent of Europe near this meridian? What meridian passes over the Ural Mts.? How many degrees of latitude and longitude included in Europe?

Name the course of the Volga river; the Danube; the Dnieper; the Don. How do these four streams compare in length with the other rivers of Europe? Name the longest rivers of Europe. What is the length of each? *Ans.* The Volga about 2,000 miles, the Danube 1,800, the Dnieper 1,000 and the Don 1,000. Name the principal tributaries of each.

Name the streams which reach the coast between the Gulf of Finland and the Bosphorus, beginning with the most northern, and stating into what bodies of water they flow. Name those streams which enter the Mediterranean or its branches, beginning with the most westerly. Name in the same order the streams which enter the Black Sea; those which enter the northern half of the Caspian Sea. Name the largest two lakes of Russia. Name the largest two lakes of Sweden. Name the course of the Dwina river; the Petchora R. Into what body of water do the principal streams of the Scandinavian Peninsula flow? Why is this?

Name the islands of the Lesser Antilles, extending north and south across the course of the trade winds, also called the Windward Islands; while those extending toward the west, in the direction of the wind, even including the Greater Antilles, are called Leeward Islands. These names, originally employed by sailors on the Caribbean Sea, have now become quite general.

* This parallel is not traced upon the map of the United States, but the parallel of 35° N. Lat. is there, and the margin of the map above it is divided into sections of one degree, so that it is easy to see where the parallel of 36° N. Lat. must lie.

Cities.—Describe the location of each of the following cities, and commit each list to memory:

IN RUSSIA.		IN TURKEY.		IN GREECE.	
ST. PETERSBURG,	Vilna,	CONSTANTINOPLE,	ATHENS,		
Moscow,	Kiev,	Adrianople,	Corfu,		
Warsaw,	Kasan,	BUKHAREST,	Zante,		
Odessa,	Astrakhan,	Salonika,	Syra (also called		
Riga,	Nijni Novgorod.	Jassy.	Hermopolis).		
IN ITALY AND SICILY.		IN NORWAY AND SWEDEN.			
Florence.	Genoa,	CHRISTIANIA,	Göteborg,		
Naples,	Venice,	Bergen,	Norrköping,		
ROME,	Bologna,	Trondhjem,	Malmö.		
Turin,	Messina,	STOCKHOLM,	Carlskroma,		
Palermo,	SAN MARINO.	Örnsköldsvik,	Helsingborg.		

Describe the position of London; of Paris. What parallel passes between these two cities? How far are London and Paris from the parallel of 50° N. Lat.? *Ans.* About 1°. Name all the European cities* within this distance of the parallel of 50° N. Lat., beginning with the most western. What two capitals a little north of this belt of cities? What two capitals a little south of the same belt?

* Write the names in the order in which they occur, and commit the list to memory. D, with a capital mark, south of Frankfort represents Darmstadt, capital of Hesse-Darmstadt.

CENTRAL EUROPE

by A. Guyot



SUPPLEMENTARY STUDIES ON MAPS.

CENTRAL EUROPE.

Mountains.—What mountains in the southern part of Central Europe? What two ranges in the south-eastern part? What range continues the Carpathian mountains toward the north-west? How do the *Alps* and *Transylvanian Alps* compare in elevation with the ranges farther northward? *Ans.* They are much higher. Where are the Vosges mountains? Jura mountains? Bohemian Forest mountains?

Rivers and Lakes.—Name and describe the course of the rivers which enter the Baltic Sea. Name and describe the course of the largest three rivers which enter the North Sea. What river enters the Rhine near the sea? By how many branches does the water of the Rhine enter the sea. What are the two principal branches called? Name the two principal tributaries in the middle course of the Rhine.

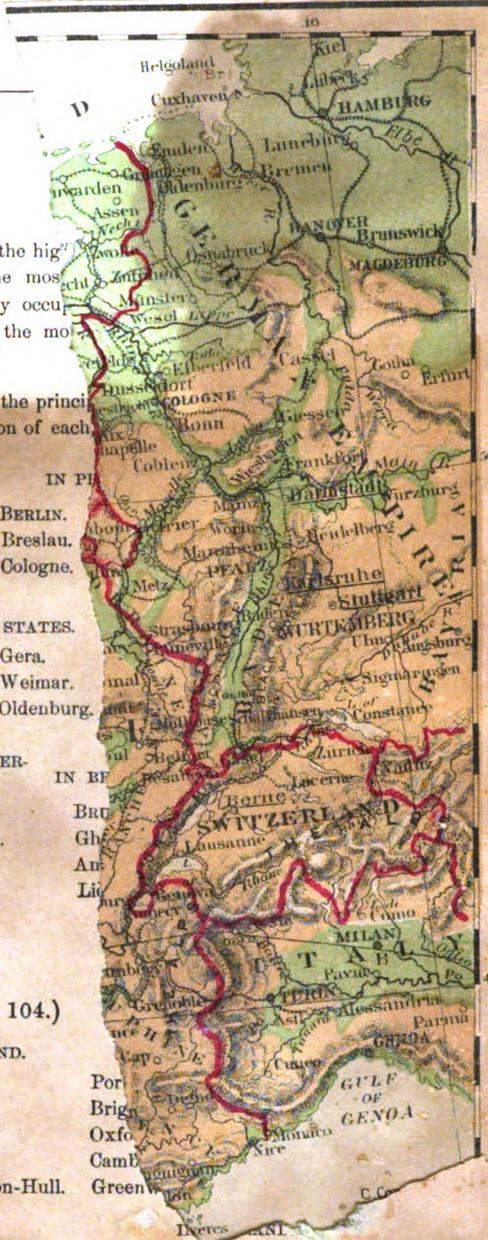
Name the largest three tributaries of the Danube. In what part of its course do they enter the Danube? What large river in the plain south of the Alps. What stream enters the Adriatic Sea just north of the mouth of the Po. Name the largest two lakes at the northern foot of the Alps. In what country are they? Name the largest lakes at the southern foot of the Alps. *Ans.* They are *Lago Maggiore*, *Lago di Como*, and *Lago di Garda*.

Countries.—What empire occupies the larger part of the basin of the Danube river? What kingdom (see page 91, Table V.) included in this empire? In what part of the empire is Hungary, and what is its surface? What empire in the highlands and plains north and west of the Austrian empire? What powerful kingdom (see page 91, Table V.) is at the head of this empire? What smaller kingdom also in this empire, and where is it situated? What kingdom in the lowlands west of the Baltic Sea? Of what (see page 46, III.) is Denmark composed?

What four small States in the highest part of the Danube? Which is the most western? Which is the most northern? Which is the smallest? What country occupies the lowlands at the mouth of the Danube? What country in the lowlands at the mouth of the lower Rhine?

Cities.—The following are the principal cities of Central Europe. Describe the location of each.

- | | | | | | |
|--------------------------------|------------|-----------------|-------------|-------------|------------|
| IN AUSTRIAN EMPIRE. | | | IN PRUSSIA. | | |
| VIENNA. | Trieste. | BERLIN. | Stettin. | Frankfurt. | Magdeburg. |
| Prague. | Lemberg. | Breslau. | Cologne. | | |
| Pesth. | Grätz. | Cologne. | | | |
| IN SMALLER CONFEDERATE STATES. | | | | | |
| Brunswick. | Altenburg. | Gera. | | | |
| Rostock. | Gotha. | Weimar. | | | |
| Schwerin. | Dessau. | Oldenburg. | | | |
| IN HESSE-DARMSTADT. | | IN SWITZERLAND. | | IN BELGIUM. | |
| DARMSTADT. | BERNE. | BRUSSELS. | | | |
| Mainz. | Geneva. | Ghent. | | | |
| Worms. | Basel. | Antwerp. | | | |



BRITISH ISLES. (See Map, page 104.)

Between what parallels and meridians are the British Isles situated? *Ans.* Between the parallels of 50° and 59° N. Lat., and the meridians of 2° E. Long. and 10° W. Lon. How many degrees of latitude and of longitude covered by the British Isles?

What two clusters of islands near the north end of Scotland? Name the largest of the Orkney Islands. Name the largest three of the Hebrides. Where are the islands of Skye; Mull; Islay; Arran? Where is the Isle of Man? Anglesey? Isle of Wight? Isle of Staffa?

What part of Great Britain is occupied by England? What part by Scotland? What part by Wales? What forms the boundary between England and Scotland?

What rivers of England flow into the North Sea? What streams of Scotland flow into the North Sea? Describe the course of the Thames; the Trent; the Tweed. What river flows into the Bristol Channel? Describe the course of the Severn. What two streams of England enter the southern part of the Irish Sea? What stream of Scotland enters the North Channel? Describe the course of the Clyde river; of the Mersey river.

In what part of Ireland is the Shannon river; the Slaney river; the Erne river? Describe the course of the Shannon. What two lakes (*Lough* means lake) in the course of the Shannon? Where is Lake Erne?

Describe the location of the following cities, and commit each list to memory:—

- | | | | | | | | | |
|-------------|---------------------|-------------|-----------------|-----------|--------------|-------------|--|--|
| IN ENGLAND. | | | IN WALES. | | | IN IRELAND. | | |
| LONDON. | Sheffield. | Portsmouth. | Merthyr Tydfil. | DUBLIN. | Waterford. | | | |
| Liverpool. | Bristol. | Brighton. | Swansea. | Belfast. | Londonderry. | | | |
| Manchester. | Newcastle. | Oxford. | Cardiff. | Cork. | Kilkenny. | | | |
| Birmingham. | Bradford. | Cambridge. | Pembroke. | Limerick. | Galway. | | | |
| Leeds. | Kingston-upon-Hull. | Greenwich. | | | | | | |

Name such of the towns mentioned in England as are on or near the coast, beginning with the most northern on the west coast. Name those which lie in the interior to the eastward of Liverpool. Which of the above cities very near London? Which three about equally distant from London to the south, the west, and the north. Which are nearly midway between London and Liverpool? What can you say (see page 49, 3) about the first six towns in the above list? What have you learned (see page 86, IV.) about Greenwich? In what part of Scotland are cities which are named above? What reason (see page 49, "Scotland") can you give for this?

WESTERN EUROPE. (See Map, page 105.)

Mountains.—What mountain ranges in the central part of France? What ranges on or near the eastern boundary? Name the principal mountain ranges of Spain. Which of these ranges cross Portugal?

Streams.—What part of Western Europe has the largest rivers? Into what waters do most of the rivers of France flow? What streams of France flow into the Bay of Biscay? What streams of France flow into the English Channel? What streams of France and Spain flow into the Mediterranean Sea? What streams of Spain flow directly into the Atlantic Ocean? Which of these streams cross Portugal? What is the general direction of most of the streams of Spain? Why is this? Why has Spain no rivers flowing into the Bay of Biscay?

Describe the course of the Rhône and name its largest tributary. Describe in

the same manner the Seine; the Loire; the Garonne; the Douro; and the Tagus.

Cities.—The following are the principal cities of these three countries; describe the position of each, and commit each list to memory.

- | | | | | | |
|------------|--------------|------------|-----------|--------------|--|
| IN FRANCE. | | IN SPAIN. | | IN PORTUGAL. | |
| PARIS. | Toulouse, | MADRID. | Malaga, | LISBON, | |
| Lyon. | Nantes, | Barcelona. | Murcia, | Oporto, | |
| Marseille. | Rouen, | Sevilla. | Cadiz, | Braga, | |
| Bordeaux. | St. Etienne, | Valencia. | Zaragoza, | Coimbra. | |
| Lille. | Besançon. | Granada. | | | |

WESTERN EUROPE

Physical and Political

By A. Guyot.



Bevedere, (Ital. and Ger.) bē'vā-dā'rā.
Bel-vi-dēre'.
Bēn-ā'rēg.
Bēn-At'tow.
Bēn-coo'lgā.
Bēn-dear'g.
Bēn-ē-ven'to.
Bēn-gū'f.
Bengazi, or Benghazi, bēn-gā'zī.
Benguela, bēn-gū'ā.
Bēn, bā-ne'.
Benicia, be-ni'she-ā.
Benin, bēn-ēn'.
Bēn Lō'mqud.
Ben Muich Dhui, bēn mū'ēk (almost meek) dū'ā.
Bēn'ning-ton.
Bēn Nē'vis.
Bēn'ton.
Bēn'ton-ville.
Benue, bēn'yū-ā.
Berar, bā-rār'.
Beraun, bā'rown.
Ber'bp-rā.
Beresina, bē-rē-zē'nā.
Bēr-ē-zōff', or Bēr-ē-zoff'.
Bēr'gēn.
Bēr'lin.
Bermudas, bēr-mū'dā.
Bēr-nard', Saint.
Bērne, or Bēr'n.
Bērri, or Bērri, bēr'rē'.
Bēr'wick (U. S.), bēr'k (Eng.)
Besançon, bā'sān'sōn'.
Bēs kī'dēs.
Bēth'ā-ny.
Bēth'lē-hēm.
Bēv'er-ly.
Beyroot. See Beirut
Bhoan, or Bhoan, boo-tān'.
Brighton, bī-ā'rīg.
Brid'gēn.
Brid'gēn.
Brisbane, briz-bān.
Brist'ol.
Britain, brit'gēn.
Brit'ish.
Brives, brēv.
Brook'hā-ven.
Brooklyn, brook'lin.
Browns'ville.
Brown'ville.
Brūce.
Bruges, brū'giz.
Bry-nā'ti, almost brū-nī'.
Bruneau, brū'no'.
Brūnn, brūn.
Brunsw'ick.
Brusa, or Broussa, brū'sā.
Brus'sel's.
Bucharest, by-kā-rēst'.
Büchberg, bük'berg.
Bū'dā.
Budweis, byd'wice.
Buenos Ayres, bō'nus ā'rīz; Span. Pron. bwā'nōs ī'res.
Buffa-lo.
Bū'fōrd.
Būg.
Bū'k'hā-rēst', or Bū'k'hā-rest'.
Bū'lgā'ri-ā.
Bū'r'dē-kin.
Bū'rgōs.
Bū'rgun-dy.
Bū'r'i-ca.
Burke'ville.
Bū'r'ing-ton.
Bū'r'māh.
Bū's'cā.
Bū'shire, bū-shēr.
Butte, büt.
C.
Cā-bā'bi.
Cā-bel'ō.
Cāb'ēs.
Cā-bool'.
Cab'ot's Head.
Cabrera, cā-brā'rā.
Caceres, cā'thā-res.
Cā'diz: Sp. Pron. cā'dēth.
Caen, kān.

Bor'ne-o.
Born'hōlm.
Hor-nū'g.
Bōs'nā Serai, sē-rā'e.
Bōs'po-rus, or Bōs'pho-rus.
Bōth'ni-ā.
Botuschany, bo-tū's-shā'ne.
Bouches, boosh.
Bou-gain'ville; Fr. Pron. boo'gān'vī'vī.
Bougie, boo'zhē'.
Boulogne, boo-lōn'; Fr. Pron. boo'lōn'.
Bourbon, boor'bon.
Bourges, boorz.
Bowling Green, bōl-ing grēn.
Brā'gā.
Bragança, or Braganza, brā-rā'hī'lōv'.
Brā'h'mā-poo'trā.
Braich-y-pwll, brī'kē-pool.
Brand'gēn-burg.
Brash'ear.
Brat'tle-bor-g.
Braunfels, brown'fels.
Brū'zil', or brā-zēl'.
Brā'zēs.
Brem'gēn (in U. S. Brē'mēn)
Bren'hām.
Bren'tā.
Brescia, bresh'ē-ā.
Bres'lau, or bres'low.
Brēst.
Brest-Litov, brēst-lē-tof'.
Bretagne, brē-tān'.
Breton, brit'un.
Bridge'port.
Bri'g'er.
Brieg, brēg.
Brigham, brig'am.
Brighton, brī'tōn.
Briodisi, brin'de-se.
Brisbane, briz'bān.
Brist'ol.
Britain, brit'gēn.
Brit'ish.
Brives, brēv.
Brook'hā-ven.
Brooklyn, brook'lin.
Browns'ville.
Brown'ville.
Brūce.
Bruges, brū'giz.
Bry-nā'ti, almost brū-nī'.
Bruneau, brū'no'.
Brūnn, brūn.
Brunsw'ick.
Brusa, or Broussa, brū'sā.
Brus'sel's.
Bucharest, by-kā-rēst'.
Büchberg, bük'berg.
Bū'dā.
Budweis, byd'wice.
Buenos Ayres, bō'nus ā'rīz; Span. Pron. bwā'nōs ī'res.
Buffa-lo.
Bū'fōrd.
Būg.
Bū'k'hā-rēst', or Bū'k'hā-rest'.
Bū'lgā'ri-ā.
Bū'r'dē-kin.
Bū'rgōs.
Bū'rgun-dy.
Bū'r'i-ca.
Burke'ville.
Bū'r'ing-ton.
Bū'r'māh.
Bū's'cā.
Bū'shire, bū-shēr.
Butte, büt.

Cagliari, kāl-yā're.
Ca-haw'ba.
Cahors, kā'or'.
Caicos, kī'kōs.
Cajamarca, or Caxamarca, kā-hā-mār'kā.
Cairo, (U. S.) kā'ro; (Egypt) kī'ro.
Calais, kā'līs, Fr. Pron. kā'lā'.
Calaveras, kā'lā-vā'rās.
Calcasieu, kāl'kē-shoo.
Cal-cut'tā.
Cāl'dās.
Caldera, kāl-dā'rā.
Cāld'well.
Cāl-ē-dō'nī-ā.
Cāl-I-for'nī-ā.
Callao, kāl-lā'ō, or kāl-yā'ō.
Cāl'ville.
Cā-loo'sā hatch'ee.
Calvi, kāl'vī.
Cam'brāy, or Cam'brāi; Fr. Pron. cām'brā'.
Cām'brī-ān.
Cām'bridge.
Cām-bō'dī-ā.
Cām'dgēn.
Cām'er-gēn.
Cām-gr-oon'.
Campagna, kām-pān'yā.
Cām-peach'y.
Campos Paricys, kām'pōce pā-Cā-m'y'tā.
Cām'q-dā.
Cām'q-dī-ān.
Cām'q-dī-guā.
Cā-nā'ry.
Cān-ā-v'ē-ral.
Cān-dā-har'.
Cām'dī-ā.
Cām-i-āp'ūs-caw.
Cām-ō-bō'lās.
Cañon, kān'yōn.
Cān-tā'brī-ān.
Canterbury, kān'tēr-bēr-ī.
Cān'tōn (U. S.), Cān-tōn' (China).
Cāp dē Crūz.
Cāp Haytien, hā'tē-ēn.
Capri, kā'prī.
Cāp'p-ā, or kā'p-p-ā.
Cā-rā'eis.
Cā-rā-vān'cā.
Car'bon-dāle.
Carlenas, kār'dā-nās.
Cār'diff.
Cār'dī-gān.
Cardiganshire, kār'dī-gān-shēr.
Cār'ib-bō'gān.
Cār'ly-ā-ville.
Carlisle, kār-lī'l'.
Carlsruhe, kārl'srū.
Carmarthen, kār-mār'thēn.
Cār-nār'vōn.
Cār'nō're.
Cār'ō-lī'nā.
Cār'ō-line.
Cār-rōn'dē-lēt.
Caroni, kā-rō-nē'.
Cār-pā'thī-ān.
Cār-pēn-tā'rī-ā.
Cār-rān-tū'gī.
Cār-rā'rā.
Cār'rol-tōn.
Cār'son.
Cār'tā-gē'nā.
Cār'tā-gē'nā.
Carthage, kār'thīj.
Cās-cādē'.
Cās'cō.
Caserta, kā-sēr'tā.
Cās'h-mēre'.
Cās-pe, kā's-pā.
Cās'pī-ān.
Cās'sāi. Kās-sā'ō, almost kā's-sī'.
Cās'sel.
Casu'aire, kā-sē-kē-ā'rā.
Castel-a-mare, kās-tē'l-ā-mā'rā.
Cās-tē'lō.
Castellon de la Plana, kās-tē'l-yōn dā lā plā'nā.
Castile, kās-tē'l'.

Castlebar, kās-sel-bār'.
Cāt-q-lō'nī-ā.
Cāt-q-mār'cā.
Cāt-tā'nī-ā.
Cā-taw'ba.
Catharina, cāth-ā-rē'nā.
Catoche, kā-tō'chā.
Cāt-ta-rau'gūs.
Cats'kill.
Cāt'tē-gāt.
Cā-t-tē'lā.
Cauca, kow'ka.
Cau'cā-sūs.
Cāv'ān (Ireland), cāv'vān'.
Caw'n'poor', or Caw'n'pore'.
Caxamarca, kā-hā-mār'kā.
Caxias, kā-shē'ās.
Cayambe, kā-ām'bā.
Cayenne, kā-ēn'.
Cayuga, kā-yū'gā.
Cedar, sē'dgr.
Celebes, sē'lē-biz.
Centerville, sēn'tēr-vīl.
Cephalonia, sēf-ā-lō'nē-ā.
Cē-rām'.
Cerigo, chēr'ē-gō.
Cerigotto, chā-rē-got'tō.
Cē'rō Gō'r'dō.
Certe, sēt.
Cetigne, or Cetinje, tēt-ing-gē.
Centa, sū'tā.
Cevennes, sē-vēn'.
Ceylon, sē'lon, or sī-lōn'.
Chā'fō, El Grān.
Chā'gōs.
Chagres, chā'grēs.
Chāl'co.
Chāl'cis.
Chaleur, shā'lur'.
Chalons, shā'lōn'.
Chambéry, shān'bā'rē'.
Chambly, shāmb'lī.
Champagne, shām-pān'; (Fr.) shām'pān'.
Champaign, shām-pān'.
Champlain, shām-plān'.
Chandeleur, shān-dē-lur'.
Chāng-Chau', or Chāng-Choo'.
Chāng-Shā.
Chapada, shā-pā'dā.
Chā-pā-lā.
Chā'p'el Hill.
Charente, shā'rānt'.
Chār't-ōn.
Charles'ton.
Charlottesville, shār'tōts-vīl.
Chartres, shārt'r.
Chateaugay, shāt-ō-gā'.
Chateauroux, shāt'ō-roo'.
Chatham, chāt'am.
Chatillon, shāt'ē'yōn'.
Chāt-tā-hoo'chee.
Chāt-tā-noo'gā.
Chaudiere, shō'dē-ēr'.
Chaumont, shō'mōn'.
Chau Phya, chōw fē-ā.
Chautauqua, shā-tā'quā.
Chā'vēs.
Chazy, shā-zē'.
Chāt.
Cheliffe, shē-lēf'.
Chelsea, chē'lē'.
Cheltenham, ehēlt'ngām.
Chemnitz, kēm'nīts.
Chemung, shē-mūng'.
Chenango, shē-nāng'gō.
Cheneyville, chē'nē-vīl.
Cher, shēr.
Che-raw'.
Cherbourg, shēr'boorg'.
Chesapeake, chēs'a-pēk.
Chēs'nūt, or chēs't'nūt.
Chēs-ter'field.
Chēs'ter-tōwn.
Cheviot, chīv'ē-ōt.
Cheyenne, shī-ēn'.
Chiapas, chē-ā'pās, or Chiapa.
Chiavari, chē-ā-vā're.
Chicago, shē-kā'gō.
Chick'a-saw'ha.
Chick-o-pee'.
Chieti, kē-ā'tē.

Chihuahua, chē-wā'wā.
Chili, chil'ē.
Chil'li-cōth'ē.
Chiloe, chē'lō-ā', almost chēl-Chim'bō-rā'zō.
Chī'nā.
Chin'chā.
Chinese, chī-nēz'.
Ching-ty'.
Chip'pe-wā.
Chō'be.
Chō'cō.
Chō'e-taw-hātch'ee.
Choiseul, shwā-zū'l'.
Chō-ly'ā.
Chotin, or Chotyū, kō-tēn'.
Chō-wān'.
Christiania, kris-tē-ā'nē-ā.
Christiansand, kris-tē-ān-sānd.
Christiansburg, kris'tyān-burg.
Chudleigh, chū'dlē.
Chui, chū-ē'.
Chuquibamba, chū-kē-b'm'bā.
Chuquisaca, chū-kē-sā'kā.
Cienfuegos, sē-en'fwā'gōce.
Cima d'Asta, chē'mā dās'tā.
Cimone, chē-mō'nā.
Cinea, thēn'kā.
Cincinnati, sīn-sīn-ā'tī.
Circassia, sīr-kās'shē-g.
Cireville, sīr-el-vīl.
Ciudad Real, sē-ū-dād rā-ā'l'.
Civita Vecchia, chē'vī-tā vēk'r-Chair, klār.
Clāre-mōnt', or clāre'mont.
Clār'en-don.
Clār't-ōn.
Clārke.
Clārks'burg.
Clay'ton.
Cler'mont (U. S.), clēr-mōn.
Cleveland, klēv'land.
Clinech, klī'uch.
Clingman's, klīng'mānz.
Clinton, klīn'ton.
Clonmel, klōn-mēl'.
Clyde, klīde.
Coango, kō-āng'gō.
Coast, kōst.
Coanza, kō-ān'zā.
Coban, kō-bān'.
Cobango, kō-bāng'gō.
Cobja, kō-bē'hā.
Coblentz, kō'blēnts.
Coburg, kō'būrg.
Coburg, kō'būrg, or kō'būrg.
Cochabamba, kō-chā-bām'bā.
Cochin-China, kō'chīn chī'nā.
Coco, kō'kō.
Cofre de Perote, kōfr dē pā'rōt.
Cognac, kōn'yāk'.
Cohahuila, kō-ā-wē'lā.
Cō-hōeg'.
Colmbra, kō-ēm'brā.
Cojutepeque, kō-hy-tā-pā'kā.
Colberg, kōl'bērg.
Colchester, kōl'chēs'tēr.
Colima, kō-lē'mā.
Collingwood, kōl'ing-wood.
Colmar, kōl-mār'.
Cologne, kō-lōn'.
Colombo, kō-lōm'bō.
Colonía, kō-lō'nē-ā.
Colorado, kōl-ō-rā'dō.
Colquitt, kōl'kwīt.
Columbia, kō-lūm'bī-ā.
Columbiana, kō-lūm-bī-ān'ā.
Columbus, kō-lūm'būs.
Comayagua, kō-mī-ā'gwā.
Combabe, kōm-bā-hē'.
Como, kō'mō.
Comorin, kōm'ō-rīn.
Comora, kō'mōrn.
Comoro, kōm'ō-rō.
Compiègne, kōn'pē'ān'.
Concepcion, or tīon, kōn-sēp'.
Conchos, kōn'chōs.
Concord, kōn'kōrd.
Conceh, kō-ne'kē.
Conemaugh, kōn'ē-mā.
Congaree, kōng'gā-rē'.

Congo, kōng'gō.
Connaught, kōn-nā't.
Connecticut, kōn-ē't-kūt.
Connemara, kōn-nē-mār'rā.
Constance, kōn'stāns.
Constantine, kōn'stān'tēn.
Constantinople, kōn'stān'tī-nō'.
Contocook, kōn'too-cook.
Contus, kōn'tūs.
Conway, kōn'wā.
Coosa, koo'sā.
Copenhagen, kō-pēn-hā'gēn.
Copiapo, kō-pē-ā-pō'.
Coquimbo, kō-kēm'bō.
Coral, kō'rāl; (Brazil) kō-rāl'.
Cordillera, kor-dīl'rā.
Cordova, kōr'dō-vā.
Corea, kō-rē'ā.
Corentyn, kō-rēn-tīn'.
Corfu, kōr'fū or kōr'fū.
Corinth, kōr'inth.
Corpus Christi, kōr-pūs kris'tē.
Corrib, kōr'rib.
Corrientes, kōr-ē-ēn'tēs.
Corsica, kōr'sē-kā.
Corso, kōr'sō.
Cortland, kōrt'lānd.
Cortona, kōr-tō'nā.
Coruña, kō-rūn'yā.
Corunna, kō-rūn'ng.
Corvallis, kōr-vāl'īs.
Coshocton, kō-shōk'tōn.
Cöslin, kōs-lēn'.
Cossacks, kōs'saks.
Cousseir, kōs-sār'.
Costa Rica, kōs'tā rē'kā.
Côte d'Or, kōt' dōr'.
Cotopaxi, kō-tē-pāk'sī.
Cottbus, kōt'būs.
Cottonwood, kōt'ton-wood.
Coudersport, kow'dēr-z-pōrt.
Council Bluffs, koun'sel-blīffs.
Coventry, kuv'en-tre.
Covington, kuv'ing-tōn.
Cracow, or Krakow, krā'kō.
Crawfordsville, krā'fōrdz-vīl.
Crefeld, krē'fēlt.
Cremnitz, krēm'nīts.
Crete, krēt'ā, or Crete, krēt.
Creuse, krēz.
Creux, krūz.
Crimea, krim-ē'ā.
Croatia, krō-ā'shē-g.
Croghan, (U. S.) krō'gān; (Ir.)
Croix, kroi; (Fr.) krwā.
Cromarty, krom'ar-tē.
Cronstadt, krōn'stāt.
Croton, krō'ton.
Crowley, krow'ly.
Crozet, krō'zēt.
Csaba, chō'bō.
Cuba, kū'bā.
Cuellar, kuv-yār'.
Cuena, kwen'kā.
Cuernavaca, kwēr-nā-vā'kā.
Cuevas de Vera, kwā'vā dā vēr-rā.
Cuilacan, ky-lē-ā-kān'.
Cumana, ky-mā-nū'.
Cumania, ky-mā'nē-ā.
Cumberland, kum'bēr-lānd.
Cumene, ky-nā'nē.
Curaços, ky-rā-sō'ā.
Curaray, ky-rā-rī'.
Curitiba, ky-rē-tē'bā.
Cutch, kūtch.
Cuyaba, ky-yā'bā.
Cuzco, kūs'kō.
Cyprus, sī'prūs.
D.
Dacca, dak'kā.
Dafu, dā'fū'.
Dagö, dā'gō.
Dahlonga, dā-lōn'gā.
Dahomey, dā-hō'mā', or dā-hō'mē.
Dakota, dā-kō'tā.
Dal Eif, dāl ēif.
Dalhousie, dāl-hoo'zē.
Dallas, dāl'lās.
Dalmatia, dāl-mā'shē-g.
Dalton, dāl'ton.

ā, as in dā; ā, as in dāne; ū, as in rūde like ō; ū, as in push; ē, as in tērm; ē, g, q, somewhat like ū, as in fra'grānt, Sa'lām, Hud'spū. th, as in thīn; th, as in wīth. n, nearly like rī.

Jenil, hā-neel'. [yā]
Jequitinhonha, zhā-kē-tēn-yōn'
Jer'e-mie, Fr. pron. zhā'rā'mē'

Khartoum, kā-rōom'.
Khatanga, kā-tāng'gā.
Khatmandoo, kāt'mān'ōōs'

Landes, lānz.
Langsa, lānz-gā'zā.
Lanes, lānz.
Langres, lāng'rē'

Loja, lō'jā.
Lombardy, lōm'bar-dī.
Lomboc, lōm'bōk'.
London, lōn'dn.

Mannagua, mā-nā'gwā.
Manaos, mā-nā'ōs.
Manassa, mā-nā-rā'sh.
Manasarowar, mā-nā-sā'rō-ār.

Mellila, mā-lēl'yā.
Melinda, mā-lēn'dā.
Mellonville, mēl'ōn-vīl.
Melville, mēl'vīl.

K.

Kabebe, kā-bā'ba.
Kabenda, kā-bēn'dā.
Kabon'po.
Kafir, kā'fir.

Kaohang, kā-gā-sē-mā'.
Kaifong, kā-fōng'.
Kaisariet, kā-sā-rī'ē'.
Kakama, kā-kā'mā.

Leeds, lēdz.
Leesburg, lēz'būrg.
Leuwaring, lē-uā-wā-rīng'.
Lewin, lē-wīn, or lē-wīn.

Maas, mā'sā.
Macao, mā-kā'ō, or mā-kōu'.
Macapa, mā-kā'pā.
Macassar, mā-kās'ār.

Mars, mā'rz.
Marselle, mā-rsāl'yē'.
Marselles, mā-rsāl'yē'.
Marschal, mā-rshā'l.

Melville, mēl'vīl.
Melville, mēl'vīl.
Melville, mēl'vīl.
Melville, mēl'vīl.

L.

Laaland, lā-lā'nd, or lōl'ānd.
Labrador, lāb'rā-dōr'.
Laccadive, lā-kā-div'.
Lachlan, lākh'lān.

Ladoga, lād'ō-gā, lā-dō'gā in
Ladrona, lā-drōn'. [U. S.]
Lafayette, lā-fā-ē-tē'.
LaFourche, lā-fōrsh.

Lafayette, lā-fā-ē-tē'.
Lafayette, lā-fā-ē-tē'.
Lafayette, lā-fā-ē-tē'.
Lafayette, lā-fā-ē-tē'.

Laing, lā'ng.
Lain, lā'n.
Lain, lā'n.
Lain, lā'n.

Laing, lā'ng.
Lain, lā'n.
Lain, lā'n.
Lain, lā'n.

Laing, lā'ng.
Lain, lā'n.
Lain, lā'n.
Lain, lā'n.

g, as in dg; o, as in done; u, as in ride like oo; y, as in push; ē, as in term; g, g, somewhat like ū, as in fragrant, Sa'lem, Hud'son. th, as in thin; th, as in with. d, nearly like th.

Monticello (Italy), môn-tê-lôn-ti-là. [chêl'ô]
 Mont-tô-ro.
 Mont-mo-ren'cy, Fr. pron.
 Mont-pel'ier. [môn-mo-râs'se']
 Montpel'ier. môn-pêl-yê-ê.
 Mont-re'al.
 Mont-rose.
 Mont-ser-rat', Fr. pron. môn-sô-râ.
 Monza, môn-zâ. [sêr'vâ]
 Mo-râ-vi.
 Moravia, mô-râ-vi-a.
 Moray, mô-râ.
 Morea, mô-rê-a.
 Mo-rê-li-â.
 Morena, mô-râ-nâ.
 Morgan, môr-gan.
 Morganfield, môr-gan-fêld.
 Morgantown, môr-gan-tôwn.
 Morlaix, môr-lâ.
 Morley.
 Morne au Diable, môrn ô d'ê.
 Morne de la Sâlle. [âbl']
 Morne du Mexique, môx'êk'.
 Morrisville, môr'is-vîl.
 Mortes, môrt'es.
 Moscow, môs'kô.
 Moselle, mô-zêl'. [kat'sês-krâil']
 Mosilikatze's Kral, mô-sil'zê.
 Mossamedes, môs'sag-mâ-dês.
 Mostaganem, môs-tâ-gâ-nêm'.
 Mosul, môsul, or môo'sul.
 Môt-tril'.
 Moulken, môok-dên'.
 Moulins, môo'lin.
 Moulmein, môl-mên'.
 Moultrie, môl'trê.
 Mourhab, môr-gâb'.
 Mozambique, mô-zam-bêk'.
 Mulden, môl'dên.
 Mull, môl.
 Muluya, môl-wâ.
 Mundo, môl'dô.
 Munfordville, môn'fôrdz-vîl.
 Munich, môn'ik.
 Munster, môn'stêr.
 Mur, môr.
 Murchison, môr'chi-sôn.
 Murcia, môr'she-â.
 Murrayboro, môr'rêz-bûr-g.
 Murray, môr'î.
 Mur-run-bid'gee.
 Murzuk, môr-zôk'.
 Muscat, môs-kât'.
 Muscatine, môs'ka-tên'.
 Musconeong, môs-kô-nôt'.
 Muskegon, môs-kê-gan [kông].
 Muskingum, môs-king'um.
 Mustang, môs'tang'.
 Maxinga, môx-ing'gâ.
 Mwedee, mô'wêd-ê-â.
 Mysore, mô-sôr'.

N.

Naab, nâb.
 Nabius, or Nabulus, nâ-bloos'.
 Nacogdoches, nâk'ô-dô'chiz.
 Nagasaki, nâ-g'zâ-kâ.
 Nahe, nâ'hê.
 Nain, nân.
 Namaqua, nâ-mâ-quâ.
 Nanur, nân-mûr'.
 Nân Chiang'.
 Nancy, nân'si'. Fr. pron. nân-si'.
 Nanking, nân-king'. [sê']
 Nanling, nân'ling'.
 Nân Shân'.
 Nantes, nânts; Fr. pron. nânt.
 Nantucket, nân-tuk'ê.
 Naples, nâ'piz.
 Nâ-po.
 Napoleon, nâ-pô-lé-on.
 Napoleone Vendee, Fr. pron. nâ-pô-lé-on' vân'dâ'.
 Narbonne, nâr'bun'.
 Narona, nâr-rôn'â.
 Narew, nâr'êv.
 Narragansett, nâr-gân'ê-ê'.
 Nasture, nâsh'yô-â.
 Nashvile, nâsh'vîl.
 Natal, nâ-tâl'.
 Natashquan, nâ-tâsh'quan.
 Natchez, nâch'êz.
 Natchitoches, nâch'ê-tôch'êz.
 Natuna, nâ-too'nâ.
 Nauen, nôw'en.
 Naugatuck, nâ-gâ-tuk'.
 Nauplia, nâ'pî-â.
 Navoo, nâ-voô'.
 Navarino, nâ-vâ-rê'no.
 Navarre, nâ-vâr'.
 Navia, nâ-vâ-â.
 Nâx'os.
 Neagh, nâ.
 Nebraska, ne-brâs'ka.
 Neches, nêch'êz.
 Neckar, nêk'âr.
 Negrais, neg-râis'.
 Neigherry, nêl'gêr'ê.
 Neisse, nî'sê.
 Neizeh, nî-zê.
 Nejd, or Nedjed, nêj'd.
 Nelson, nêl'son.
 Nemours, nâ'moor'.
 Nê-n, or Nêne.
 Neosho, nê-ô'shô.

O.

Oajaca, wâ-hâ'kâ.
 Oahu, wâ-hô.
 Oakland, ôk'lând.
 Obdorsk, ôb-dônsk'.
 Obidos, ô-bê'dôce.
 Obi, ô-bi.
 Occob, ôk-kô.
 Oceania, ô'shê-ân'î-â.
 Oceanica, ô'shê-ân'î-â.
 Ocmulgee, ôk-mul'gê.
 Ocola, ô-kô-lâ.
 Ocoee, ô-kô-ê.
 Odaibina, ô-dî-hê-nâ.
 Odenburg, ô'dên-boorg.
 Odense, ô'dên-sê.
 Oder, ô'dêr.
 Odessa, ô-dê-sâ.
 Odouze, ô-dôz-ê.
 Oelmas, ô-ê-lâs.
 Oeland, ô-lând.
 Oesel, ô-sêl.
 Ogenburg, ôg'dênz-bûrg.
 Oglio, ô-gi-ô.
 Ogechee, ô-gê-êhê.

Oglethorpe, ô-gl-thôrp.
 Ohio, ô-hi-ô.
 Oise, ôiz; Fr. pron. wâz, almost.
 Oka, ô-kâ. [wiz]
 Okeechobee, ô-kê-êh'ô-bê.
 Okfenokee, ô-kê-fô-ô-kê.
 Okinakee, ô-kin-ê-kâ.
 Okhotsk, ô-kôtsk'; Russ. pron. almost ô-nôtsk'.
 Oldenburg, ôl'dên-bôrg; Ger. pron. ôl'dên-boôrg'.
 Olburg, ôl-bûrg.
 Oldtown, ôld'tôwn.
 Olekminsk, ô-lêk-minsk'.
 Olenek, ô-lân-êk'.
 Oleron, ô-lârôn'.
 Ol'j-fants.
 Ol'mutz.
 Ol'on-te-ro's'ki.
 Olympia, ô-lim'pi-â.
 Omaha, ô-mâ-hâ.
 Oman, ô-mân'.
 Omabay, ôm'bâi.
 Ombrone, om-brô'nî.
 Onnetpec, ô-nâ-tâ-pêc'.
 Omoa, ô-mô-â.
 Omsk, ômsk. [ô-nâ'gâ]
 Onega, ô-nê-gâ; Russ. pron. Oueda, ô-nê-dâ.
 Onouega, ô-nô-ê-gâ.
 Onslow, ônz'lô.
 Ontario, ô-n-târ'î-ô.
 Ontonagon, ôntô-ng'gôn.
 Oostanaula, ôos'tân-â-lâ.
 Opelousa, ôp'ê-lôô'sâs.
 O'phir.
 Oporto, ô-pôrt'ô.
 Oposora, ô-po-soo'râ.
 Op'peln.
 Oran, ô-rân.
 Ormus.
 Orangeburg, ôr'anj-bûrg.
 Orange, ôr'ê-gn.
 Or'eu-burg.
 Orense, ô-rên-sâ.
 Orinda, ô-rê-wâ-lâ.
 Orinoco, ô-rî-nô-kô.
 Orizaba, ô-rî-zâ-bâ.
 Oriskany, ô-rî-sâ'nô.
 Orkney, ôrk'nê. [ô-râ'ân']
 Orleans, ôr'êl-anz; Fr. pron. Orlemais, ôr-lâ'mâ'.
 Orne, ôrn.
 Or'ro-vile.
 Ortelgal, ôr'tê-gâl.
 Orsova, ôr-sô-vô.
 O-sâ-câ, or O-sâ-kâ.
 Osage, ô-sâ-j'; Fr. pron. ô-zâh'.
 Osceola, ôs'ê-ô-lâ.
 Osel, see Oesel.
 Oshkosh, ôsh'kôsh.
 Osnabruk, ôs-nâ-brûk.
 Ossipee, ôs'î-pê.
 Ot-tend'; Fr. Os-tende'.
 Osuna, ô-sô-nâ.
 Oswegatchie, ôs-wê-gâch'î.
 Oswego, ôs-wê-gô.
 O-trân'tô.
 Ottawa, ôt'â-wâ, or ôt'â-wâ.
 Oude, ôwd.
 Ouniper, wim-per.
 Our, ôor.
 Ouro Preto, ô-ro prê'tô.
 Ouse, ôoze. [â]
 O-ran'bo.
 Ovidio, ô-ve-â-dô.
 Owasco, ô-wôsk'ô.
 Owego, ô-wê-gô.
 Owenboro, ô'wênz-bûr-g.
 O-wy'hee.
 Oxford.
 O-yapok, ô-yâ-pok'.
 Oyo, ô-ô.
 Ozark, ô-zark'.
 Pacarayma, pâ-kâ-rî-mâ.
 Pacific, pâ-sî'fik.
 Pâd-âng'.
 Pa-dre-born'.
 Padre Island, pâd'r.
 Padua, pâd'yû-â.
 Paducah, pâ-dû-kâ.
 Paintville, pânt'vîl.
 Páidos, pâ'î-dô.
 Pâi-â-wân'.
 Palenbang, pâl'ê-m-bâng'.
 Palencia, pâ-lên'tê-â.
 Palermo, pâ-lêr'mô.
 Palestine, pâl'ê-s-tîn.
 Pâik, pâk.
 Palma, pâl'mâ.
 Palmas, pâl'mâs.
 Palmira, pâl'mî-râ.
 Palo Alto, pâlo âl'tô.
 Palos, pâ'ô; pâ'lôs (U. S.).
 Palte, pâlt'â.
 Pâmir, pâ-mîr'.
 Pamlico, or Pamplico, pâml'î-
 Pampas, pâmp'pâs. [kô]
 Pamplona, pâmp-lôn-â.
 Pamunkey, pâ-mûng'ki.
 Panama, pâ-nâ-mâ'; Sp. pron. Panaro, pâ-nâ-rô. [pâ-nâ-mâ'.
 Panay, pâ-nê.

P.

Panola, pâ-nô-lâ.
 Pân-târ'.
 Pâpînsville, pâ'pînz-vîl.
 Papua, pâ'pû-â, or pâ'pû-ô-â.
 Para, pâ-râ.
 Pâ-râ-cels'. [gwi']
 Paraguay, pâ-râ-gwâ', or pâ-râ-
 Parahyba, pâ-râ-ê-bâ.
 Paramaribo, pâ'râ-mâr'î-bô.
 Parana, pâ-râ-nâ.
 Paranaqua, pâ-râ-nâ-gwâ'.
 Parapaname, pâ-râ-nâ-pâ-
 Parrys, pâ-rîs'st. [nâ'mâ]
 Par'gâ.
 Parua, pâ-rû-â.
 Paris, pâ-rîs; Fr. pron. pâ-rê'.
 Parkersburg, pâ'r'kêz-bûrg.
 Parma, pâ'r'mâ.
 Paruahyba, pâ'r'mâ-ê-bâ.
 Pârtos.
 Pâr'tras.
 Parry, pâ'r'î.
 Pascagoula, pâs'kâ-gôô-lâ.
 Pâs'co.
 Pass à l'Outre, pâs â l'ôô't'r.
 Passaic, pâs-â'ik.
 Passamaquoddy, pâs'â-mâ-
 kwôd'î.
 Passau, pâs'sôv.
 Pastasa, or Pastaça, pâs-tâ'sâ.
 Pâstos.
 Patagonia, pâ'tâ-gôn'î-â.
 Paterson, pâ'têr-sôn.
 Pa-ter-nos'ter.
 Patî, pâ-tê.
 Patna, pâ'tnâ.
 Patras, pâ'trâs.
 Patuxent, pâ-tûks'ênt.
 Pau, pô.
 Paul de Loanda, pâl dê lô-ân'.
 Paulding, pâl'dîng. [dâ]
 Paumotu, pô-mô-tôô'.
 Pavia, pâ-vî-â.
 Pawnee.
 Pawtucket, pâ-tûk'êt.
 Pax'ô.
 Pearl, pêrl.
 Pease, pêz.
 Peann, pêk'ân'.
 Pech-â.
 Pechill, pâ'chê-lê'.
 Pecos, pâ'kôs.
 Pedee, pê-dê.
 Pegu, pê-gô-ô'.
 Peipus, pê'p-ôôs.
 Peking, pê-king'.
 Pelew, pê-lê.
 Peling, pâ-ling'.
 Pen'â.
 Pembina, pêmb'ê-nâ.
 Penas, pê'nâs.
 Pendleton, pênd'l-tôn.
 Pen-jinsk'.
 Penjinsko, pênjîns'kô.
 Pennine, pê'nî-n.
 Pennsylvania, pêns'vî-lâ-nî-â.
 Penobscot, pê-nôb'skô't.
 Pensacola, pêns-â-kô-lâ.
 Pênt'land.
 Peoria, pê-ô-rî-â.
 Pepin, pê'pîn.
 Perak, pâ-râk'.
 Perardo, pê-rârd'ô.
 Pere Marquette, pêr mar'kê't'.
 Perigueux, pâ'rê-gô.
 Pernambuco, pêr-nâm-bôô-kô.
 Perouse, pâ-rooz'.
 Perpignan, pêr-pên-yân'.
 Perryville, pêr'vîl.
 Persepolis, pêr-sêp'ô-lîs.
 Persia, pêr'shî-â, not pêr'zhi-â.
 Persian, pêr'shî-ân.
 Perth, pêrth.
 Peru, pê-rû; Sp. pron. pâ-rôô'.
 Perugia, pê-rôô-jâ.
 Pesth, pêst.
 Petaluma, pêt-â-lôô-mâ.
 Petchora, pêch'ô-râ.
 Petraea, pê-trê-â.
 Petersburg, pê'têrz-bûrg.
 Petropaulovski, pâ-trô-pou-
 Peyton, pâ'tôn. [lôv'skê]
 Pharpar, fâr'pâr.
 Philadelphia, fil-â-dêl'fî-â.
 Philippe, fil'p'â.
 Philippe, fil'p'â.
 Philippine, fil'p'î-n.
 Philippopolis, fil'p'ô-pô-lîs.
 Philippopolis, fil'p'ô-pô-lîs.
 Phil Kearney, kâr'nî.
 Phoenix, fê-nîks.
 Pîave, pê-â-vâ.
 Pie Anethon, pêk-â-nî-tôô'.
 Pi-chin'châ.
 Picken, plîk'enz. [ôv'â]
 Pico de Yautpe, pê-kô dê yâ-
 Pico de Orizaba, pê'kô dê ô-rî-
 Pieton. [zâ'bâ]
 Pierre, pêr; Fr. pron. pê-êr'.
 Pietermaritzburg, pê'têr-mar-
 Pike's, pîks. [îts-burg]
 Pîketon, pîk'tôn.
 Pikeville, pîk'vîl.
 Pilatka, pî-lâ'tkâ.
 Pilica, pî-lî-tâ.
 Pilcomayo, pî-kô-mî-yô.
 Pil'sen.

Pimas, pê'mâs.
 Pina, pê-nâ.
 Pinar, pê'nâr.
 Pinaleno, pê-nâ-lâ-nô.
 Pinang, pe-nang'.
 Pînsk.
 Piqua, pîk'wâ.
 Piraeus, pê-râ'ûs.
 Pisa, pê-zâ.
 Pis-cât-â-qua.
 Piscataqui, pis-kât'â-quis.
 Pisco, pê'scô.
 Pisek, pî'sêk.
 Pisuerga, pî-swer'gâ.
 Pitie, pî-êk'.
 Pitshit, pî-têsh'î.
 Pittsbor-o.
 Pittsburg.
 Pittsfield.
 Piura, pê-ô-ô-râ.
 Placentia, plâ-sên'she-â.
 Placerville, plâ'cêr-vîl.
 Plaquemine, plâk'mên.
 Plateau, plâ'tô.
 Platte, plât.
 Plattsmouth, plâts'mûth.
 Platteville, plât'vîl.
 Plock, plôtsk.
 Plo-vest'.
 Plum'ner.
 Plotzk, plôtsk.
 Plymouth, plîm'ûth.
 Plym-lym'mon, or Plîn-lym'mon.
 Po, pô.
 Po-dolsk'. [pwâ'tô'r']
 Poitiers, poi-têrz; Fr. pron.
 Poitou, poi-tô; Fr. pron. pwâ'.
 Point de Gâlle. [too']
 Poland, pô'lând.
 Po-loks'.
 Polynesia, pôl'î-nê'shî-â.
 Pomerania, pô'm-ê-râ-nî-â.
 Pomeroy, pôm'êr-oi.
 Po-mô-nâ.
 Pompeii, pôm-pâ'yê.
 Ponce, Sp. pron. pon'thâ'.
 Pondicherry, pônd'ê-shêr'ê.
 Pontchartrain, pônt'châr-trân'.
 Pontchard, pônt'châr-drâ.
 Pont neuf, pô'n'nuf'.
 Pontianak, pônt-tê-â-nâk'.
 Pontotoc, pônt'ô-tôk'. [yân']
 Popayan, pô-pî-ân', or pô-pâ-
 Popocatepetl, pô-pô-kâ't-â-pê'tîl'.
 Portalegre, pôrt-â-lâ'grâ.
 Portage, pôrt'gî.
 Port au Prince, pôrt ô prints.
 Port de la Paix, pâ.
 Portland, pôrt'lând.
 Porto Alegre, pôrtô-â-lâ'grâ.
 Porto Imperial, pôrtô-êmp-pâr'tê-
 Porto Rico, pôrtô-rîk'ô. [al]
 Porto Vecchio, pôrtô vek'ê-ô.
 Portsmouth, pôrts'mûth.
 Portugal, pôrt'ô-gal.
 Posen, pôz'en.
 Pot-chef's-troom.
 Poteau, pô'tô.
 Potomac, pô-tô'mâk'.
 Potosi, pô-tô-sî, or pô-tô-sê.
 Pottsville, pôts'vîl.
 Poughkeepsie, pô-kîp'sî.
 Powder, pou'dêr.
 Py'dry.
 Prâ-gâ.
 Prague, prâg.
 Prairie du Chien, prî'rî'y d'ôô-
 shen; Fr. pron. prâ'rê' d'û
 Pregel, prâ'gêl. [shê-ân']
 Prescott, prê'skô't.
 Presidio, prê-sî-dî-ô.
 Pressburg, prêsb'ûrg; Ger.
 pron. prês'boorg.
 Preston, prêst'tôn.
 Prê-tô-rî-â.
 Princeton, prînts'tôn.
 Principa de Bera, prî'n'sê-pê
 Pripet, prîp'ê't. [dâ bê-â-râ.
 Prô's-nâ.
 Providence, prôv'ân's.
 Providence, prôv'î-dênts.
 Provo, prô'vô. [â]
 Prussia, prûsh'î-â, or prôv'îsh'.
 Pruth, prôuth; Ger. pron. prôôt'.
 Pskov, ps'kôf.
 Ptitsh, p'tîch'.
 Puebla, pwêb'êlâ.
 Puerco, pwêr'kô.
 Puerto Plata, pwêr'tô plâ'tâ.
 Puerto Principe, pwêr'tô prî'n'sê-
 Puget, pô-jê't. [sê-pâ]
 Pûmpet, pwê't-ê-pê't.
 Pulasai, pô-lâ-sâ.
 Pulo Way, pôo'lô wâ.
 Pulo, pôo'lô.
 Punta, pôon'tâ.
 Purissima, pôo-rîs'sê-mâ.
 Purus, pôo'rôos.
 Putumayo, pôo'tô-mî-yô.
 Pyren-ês, pîr'ê-nêz.
 Pyr'gos.

Q.

Quâ'de-lon.
 Quâ'ng-tông'.
 Quathamba, kwât-lâm'bâ.

R.

Quebec, kwê-bêk'.
 Queen Charlotte, kwên shâr't.
 Queensland, kwênz'lând.
 Quentin, kwên'tîn.
 Queretaro, kê-râ-tâ-rô.
 Qui Appelle, kê-âp-êl'.
 Quilimane, kê-lê-mâ'nâ.
 Quiloa, kê-lô-â.
 Quin'cy, or Quin'y.
 Quinebag, kwîn'ê-bâg'.
 Quitman, kwit'mân.
 Quito, kê'tô.
 Raab, râb.
 Râ'bâ.
 Raccoon, râk-ôon'.
 Racine, râ-sên'.
 Racket, râk'ê't.
 Râ'dâck.
 Radnau, râd'nôw.
 Radnor, râd'nôr.
 Radom, râ'dôm.
 Râ-gu'â.
 Rahway, râ-wâ.
 Rainier, râ-nêr.
 Rainy, râ-nî.
 Raleigh, râ-lî.
 Râl'ick.
 Kangoon, râng-gôon'.
 Rapidan, râp'id-ân'.
 Rappahannock, râp'â-hân'k.
 Raritan, râ-rî-tân'.
 Ras-el-Had, râs-êl-hâd'.
 Rat'is-bon.
 Râ-vên'nâ.
 Ray, râ.
 Raymond, râ'mônd.
 Raystown, râs'tôwn.
 Reading, rêd'îng.
 Recherche, rê-shêrsh'.
 Recife, rê-sê'fâ.
 Ré râ.
 Regensburg, rê-gens-bông'.
 Reims, or Rheims, rêms; fr.
 pron. rênz.
 Rendsburg, rends'boorg.
 Rennes, rên.
 Reno, râ'no.
 Requeña, rê-kân'yâ.
 Rêsh't, or Rêshd.
 Reunion, rê-ûn'ôn-â.
 Reuss, or Reus, rêce; Ger. rôze.
 Reval, rêv'âl, or rêv'âl.
 Revilla, rê-vê-lî-â.
 Reykjavik, or Reiklavik, rê-
 Reyna, rê-ê-nâ. [rê-ê]
 Rhode Island, rôd'î-lând.
 Rhodese, rôdz.
 Rhodope, rôd'ôp-g.
 Rhône, rôn.
 Riazan, rê-â-zân'.
 Ribadeo, rê-bâ-dê-ô.
 Rib'ble.
 Richebucto, rîsh-ê-buk'tô.
 Richelieu, rê'shê-lê-ô, or rôh'.
 Richmond, rîch'mônd. [lê']
 Rideau, rê-dô.
 Ridgeway, rîj'wâ.
 Rîe-n, rê-zên.
 Riga, rî'gâ, or rê'gâ.
 Rig'ô-lette'.
 Riley, rî-lî.
 Rîlo Dagh, rê-lô dâh'.
 Rimini, rê-mê-nê.
 Rimouski, rê-mô-ski.
 Riombamba, rê-ô-bâm'bâ.
 Rio Branco, rê-ô-brân'ô.
 Rio Brazos, rê-ô-brâz-ô.
 Rio Colorado, rê-ô-kô-lô-râ-dô.
 Rio Cochos, rê-ô-kôsh-ô.
 Rio de la Plata, rê-ô-dê-lâ-plâ-tâ.
 Rio Grande (Texas), rê-ô-grând.
 Rio Grande (S. A.), rê-ô-grând.
 Rio Grande del Norte, rê-ô-
 grând'â del nôrt'.
 Rio Janeiro, rê-ô-jânê-rô, or
 rê-ô-jân-ê-rô.
 Rio Negro, rê-ô-nê-grô.
 Rio Pecos, rê-ô-pê-kôs.
 Rio San Juan, rê-ô-sân-jân.
 Rio San Pedro, rê-ô-sân-pê-drô.
 Ripley, rîp'lî.
 Rip'on.
 Rivière du Loup, rê-vî-êr-dû
 Roanoke, rô-â-nôk'. [lô]
 Rochefort, rôsh-for'.
 Rochelle, rô-shêl'.
 Rochester, rôch'êr-ê.
 Rock, rôk.
 Rockbridge, rôk-brîj'.
 Rockfish, rôk'fîsh.
 Rockford, rôk'fôrd.
 Rockingham, rôk'îng-âm.
 Rock Island, rôk'î-lând.
 Rockland, rôk'lând.
 Rodex, rô-dê.
 Rodriguez, rôd-rê-g', or rô-dê-g'.
 Rogue, rôg.
 Rolling Fork, rôl'îng-fôrt'.
 Romania, rô-mâ-nî-â, or rô-mân-
 Romanov, rô-mân-zôp'. [rô-mân]
 Rome, rôm.
 Ron'dâ.
 Rondout, rôn-dout'.
 Roque, rôk.

â, ê, î, ô, û, as in mâte, mô't. mîte, mô'te, mûte. â, ê, î, ô, û, as in ât, pêt, ît, nô't, ùp. â, ê, î, ô, û, as in câre, thêre, fîrm, fôr, fûrl. â, as in fâr; â, as in lâst; g, as in gâ.

Roraima, rô-ri'mâ.
Roost-chook, or Rust-chuk'.
Rosario, rô-sâ-re-o.
Rouseheim, rô-zen-him'.
Rosenau, rô-zen-ow.
Rosetta, rô-zet'tâ.
Ros-sâ'no.
Rôs'tock.
Rotterdam, rô'ter-dâm'.
Rouen, rô'ên; Fr. pron. rôo.
Roumania, rô-mâ'nê-â. [ôn.
Rouse's, rôus'ez.
Rovuma, rô-vo'o'mâ.
Roxbury, rôks'ber-i.
Rudolstadt, rô'dôl-statt'.
Rügen, rô'gen.
Rug, roog.
Ruhr, roor.
Rupert, rô'pêrt.
Russia, rôsh'i-â, or rôo'shî-â.
Russian, rôsh'i-an, or rôo'shî-â.
Russellville, rô's'el-vîl. [an.
Rustchuk, rôos'chôok'.
Rutherfordton, rô'th'er-fur-ton.
Rutland, rô't'land.
Rutledge, rô't'lej.

S.

Saale, sâ'le.
Sable, sâ'bl.
Sabina, sâ-bê'nâ, Italy; Sâ-bî-nâ, U. S.
Sabine, sâ-bên'. [bör.
Sackett's Harbor, sâk'ets här'.
Saco, sâ'kô.
Sacramento, sâk-râ-mên'to.
Saddo, sâ-dâ'o; or Saldao, sâ-lâ-dô.
Saddle, sâ'd'el. [dâ'o.
Sadowa, sâ'dô-â.
Saghalien, sâ-gâ-lê'n.
Sag Harbor, sâg här'ber.
Saginaw, sâg'i-nâ.
Saguenay, sâg'e-nâ.
Sahama, sâ-hâ'mâ.
Sahara, sâ-hâ'râ, or sâ'hâ-râ.
Sainsk, sâ-ânsk'.
Saïda, sâ'dâ.
Saigana-gah, sî-gâ'nâ-gâ.
Saigon, sâ'gon.
Saintonge, sâ-n'tônzh.
Sakarua, sâ-kâ're-â.
Salado, sâ-lâ'dô.
Salva-man'ca.
Salamis, sâ'lâ-mis.
Salank, sâ-lânsk.
Salem, sâ'lem.
Salinées, sâ-lê'môz.
Salinas, sâ-lê'nâs.
Saline, sâ-lên'.
Salisbury, sâlz'ber-i.
Salneh, sâ'l'neh.
Salomon, sâ'lô-mon.
Salonika, sâ-lô-nê-kâ.
Salta, sâ'l'tâ.
Saltilo, sâ-l'tê'l'yô; Vulg. pron. sâ-l'tê'yô.
Saluda, sâ-lô'dâ.
Saluen, or Salwen, sâ'l'wên.
Salza, sâ'lzâ.
Salzburg, sâlz'bûrg; Ger. pron. sâlz'bôrg.
Samana, sâ-mâ-nâ.
Samar, sâ-mâr'.
Samarang, sam'a-rang'.
Samarang, or Samarang, sâ-mâr-kand'.
Sambre, sâ'm'br'.
Sampo, sâ'm'pû.
Samoa, sâ-mô-â.
Samoyedes, sam'oi-êdz'.
Samsô, sâ'm'sô.
San, sân.
Sana, sâ-nâ.
San Andros, ân-drôz'.
San Antonio, sân ân-tô'nî-ô.
San Antonio de Bexar, sân ân-tô'nî-ô dâ bê-hâr'.
Sanarom, sâ-nâr-om.
San Bartolomeo, bâ-tô'lô-mâ'ô.
San Bernardino, sân bêr-nâr-dê'nô.
San Blas, sân blâs.
San Borja, bôr'jâ.
San Carlos.
San Christoval.
San Clemente, clâ'mânt.
San dore-villo.
San Diego, sân dê-jô.
San Domingo, sân dô-mîng'gô.
Sandusky, sâ'n-dû'skî.
Sandwich, sâ'n-dwîch.
Sandy Hook, sâ'n'dî hûok.
San Felipe de Jativa, fâ-lê'pâ dâ hê-vâ.
San Fernando, fêr-nân'do.
San Francisco, sân frân-sîs'kô, or sân frân-sês'kô.
Sanganon, sâng'ganôn.
San Joaquin, sân hô-â-kên'.
San Jose, sân hô-sâ.
San Jose de Parral, hê-zâ'dê-pâr-riâl.
San Juan Bautista, hy-ân' bow-tê's'tâ.
San Juan, sân jôan; Sp. pron. sân hu-ân', or sân huân'.

San Luiz de Maranhão, sân lô-ês dâ mã-rân-yâ'ôn.
San Luis Rey, lô'ê râ'.
San Louis Obispo, lô'ê ô-bê-s'tô.
San Marino, mã-rê'no.
San Matias, mã-tê'as.
San Nicolas, nê'kô'lâ'.
San Paulo de Loanda, pow'lo dâ lô-ân'dâ.
San Pedro, pâ'drô.
San Rafael, râ'fâ-êl'.
San Rosalia, rô-sâ-lê'â.
San Sâ'bâ.
San Salvador, sân sâl-vâ-dor'.
San Sebastian, sê-bâs'tiân.
Sân'ta Catalina, cât-â-lê'nâ.
Santa Catherina, sânt-â kâ-tâ.
Santander, sân-tân'dêr. [rê'nâ.
Santa Cruz, sân'tâ krôz; Sp. pron. sân'tâ krôoth.
Santa Fe, sân'tâ fê; Sp. pron. sân'tâ fâ.
Santa Lú'cia.
Santa Marta, sânt-â mãrt-â.
Santarem, san-tâ'rem.
Santa Rosa, sân'tâ rô'sâ.
Sintee, sân'tê.
Santiago, sân-tê-â'gô.
Santiago de Compostella, dâ côm-pos-tê'lâ.
Santiago de Veragua, vâ-râ'guâ.
Santilla, sânt-tî'lâ.
Sânt'os.
Sâ-ô-nâ.
São, sôn.
São Paulo, souv pou'lo.
Sapienza, sâ-pê-nâ-zâ.
Sara, sâ'râ.
Saragossa, sar-â-gôs-â, or Zara.
Sarano, sâr-nâ-k'.
Saratoga, sar-â-tô-gâ.
Sarator, sâ-râ-tôv'.
Sarawak, sâ-râ-wâk, or sâ-râ-wâk'.
Sarawatu, sâ-râ-wâ'tô.
Sarayu, sâ-râ-yô.
Sardinia, sâr-dîn-i-â.
Sarmiento, sâr-mê-n'tô.
Sarnia, sâr-nê-â.
Sarpo, sâr'pô.
Sarthe, sârt.
Sassare, sâs'rê.
Saskatchewan, sâs-kâch'ê-wân'.
Saulk, sâ'k.
Sault St. Mary, Fr. pron. sôl sâx mã'r'y, but now usually called sôl sênt mã'ri.
Saumur, sô'mûr'.
Sauna, sâ'nâ.
Sava, sâ'vâ.
Savaunah, sâ-vân-â.
Save, sâv, or sâv.
Savoy, or sâv'wâ.
Saxony, sâks'ô-nî.
Sayansk, sâ-ânsk'.
Sazawa, sâ-zâ-wâ.
Scafel, skâ'fêl.
Scandinavia, skân'dî-nâ-vî-gâ.
Scarboro, skâr'bô-rô.
Schachow, shâ-chow'.
Schaffhausen, shâf-how'zen.
Schauenburg, shôw'en-bûrg.
Schawli, shâ'le.
Schelde, or Scheldt, skêlt.
Schemnitz, shêm'nîts.
Schneetady, skê-nêk'tâ-dî.
Schleswig, shîlê'wîz.
Scholarie, skô-hâr'ê.
Schodie, skô'dîk.
Schuylikil, skô'y'kîl.
Schwartzburg, shwârtz'bôorg.
Schweidnitz, shwîd'nîts.
Schwerin, shî-wâ-rên'.
Schyl, shêl.
Scilly, sî'lî.
Scio, sî'ô.
Sciotto, sî-ô'tô.
Scoutland, skô't'land.
Seoutari, skô'tâ-rê.
Seattle, sê'tl.
Sebago, sê-bâ'gô.
Sebastopol, sêb-âs-tô'pôl.
Sebou, sâ'bôo'.
Sê-dân'.
Seeland, sê'lând.
Segovia, sê-gô'vî-â.
Segre, sê-grâ.
Segura, sê-gû'râ.
Seine, sân.
Selangan, sê-lâng-gân'.
Seligher, sê-lê-gâr'.
Selimah, or Selimeh, sê-lê'mâ.
Selma, sê'l'mâ.
Selvas, sê'l'vâs.
Sem, sêm.
Semerone, sê-mê-rôn'.
Senaar, or Sennaar, sên-nâr'.
Seneca, sên'ê-kâ.
Senegal, sên'ê-gâl'.
Senegambia, sên'ê-gâm'bî-â.
Senna, sên'nâ.
Sera, sî'râ.
Seral, sâ-rî.
Sereth, sêr'ê't, or sâ'rê't.
Serinagar, sê-rîng-â-gûr'.

Serphanto, sêr-fân'to.
Serpho, sêr'fô.
Serra Espinhaço, sêrr-â ês-pên-yâ'sô.
Sêr-vî-â.
Severn, sêv'ern.
Severo, sâ-vâ'rô.
Sevilla, sâ-vê'lî-â.
Seyba, sî'bâ.
Seychelles, sâ-shêl'.
Shamo, shâ'mô.
Shanghai, shang'hî'.
Shang yü à-lîn'.
Shannon, shân'on.
Sharon, shâr'on.
Shasta, shâs'tâ.
Shawyunk, shong'gûm.
Shayenne, shâ-yên'.
Sheboygan, shê-boi'gan.
Shechem, shê'ch'em.
Shelburne, shêl'burn.
Shenandoah, shên-an-dô-â.
Sherif, shâ-rîf'.
Shetland, shê't'land.
Shetucket, shê-tûk'et.
Shiawasee, shî-â-wâs'ê.
Shieldsboro, shêldz'bûr-p.
Shiloh, shî'lô.
Shinri, shîn'rî.
Shiraz, shî-rîz'.
Shirwa, shîr'wâ.
Shlitz, shîltz.
Shrewport, shrêv'pôrt.
Shrewbury, shrêv'ber-y.
Shodiak, shô-dî-ak.
Sho-hong, shô-shong'.
Siak, sî-âk'.
Siam, sî-âm', or sê-âm'.
Siberia, sî-bê'rî-â.
Sicily, sî-tî-lî.
Sidra, sî'drâ.
Sierra Acaria, sê-êr-â-â-kâr-rî.
Sierra de Gata, gâ'tâ.
Sierra del Cibao, chê-bô-â.
Sierra Leone, sî-êr-â-lê-ô-nê.
Sp. pron. sê-êr-â-lê-ô-nâ.
Sierra Madre, sê-êr-â-mâ'râ.
Sierra Morena, sê-êr-â-mô-râ'nâ.
Sierra Nevada, sê-êr-â-nâ-vâ'nâ.
Siguenza, sê-gwên'tô-â.
Sihoon, sê'hôon'.
Sikhota Alin, sê-kô'tô-â-lîn'.
Sikiang, sê-kê-âng'.
Si-kok'.
Sillista, sî-lîs'trî-gâ.
Silver, sîl'vêr.
Simcoe, sîm'kô.
Si-mô'dâ.
Sinai, sî-nâ, or sî'nâ-î.
Sinloa, sîn-lô-â.
Sin'gall-ang.
Sinde, sînd.
Sinder.
Singan, sên-gân'.
Singapore, sîng-â-pô-r'.
Sing Sing, sîng'sîng.
Sinope, sîn'ô-pê.
Sioot, sê-oot'.
Sioux, sôo'; Fr. pron. sê-ôo'.
Sir Daria, sêr-dâ-rê-â.
Sistora, sîs-tô-râ.
Sistova, sîs-tô'vâ.
Sitka, sî'tkâ.
Siwah, sê'vâ.
Skagen, skâ'gen.
Skager Rack, skâg'er râk.
Skaneateles, skân-ê-â'tê-lêz.
Skiatho, skê-â'tô.
Skopelo, skô-pâ'lô.
Skyros.
Slamat, slâ'mât.
Slaney, slâ'nî.
Slatina, slâ-tî-nâ.
Sligo, slî'gô.
Slutch, slôch.
Slyne, slî-nê.
Smith, smîth.
Smithfield, smîth'fêld.
Smithport, smîth'pôrt.
Smolensk, smô-lênsk'.
Smyna, smî'n-â.
Snake, snâk.
Snæwell, snê-wêl'.
Sneeling, snê'lîng.
Snowdon, snô'dôn.
Snowhill, snô'hîl.
Soar, sôr.
Sobat, sô'bât.
Soocoro, sô-co'rô.
Soocora, sô-kô'trâ, or sôk'ô-trâ.
Soda, sô'dâ.
Sodom, sô'dôm.
So-est, zoost.
Sofia, sô-fâ'lî, or sô'fâ-lî.
Sofisk, sô-fê'sk.
Sokoto, sô-kô'tô.
Solimoos, sô-lê'môz.
Solon, sô'lôn.
Solway, sô'l-wâ.
Somali, sô-mâ'lê.
Sombereete, sôm-brê-râ'tâ.
Somerset, sôm'êr-sê't.
Somerville, sôm'êr-vîl.
Somme, sôm.
Sondershausen, son-ders how-sân.

Sonora, sô-nô-râ.
Soongaria, sôong-gâ-rê-â.
Sonseca, son-sâ-kâ.
Sophia, sô-fê-â.
Sorata, sô-râ'tâ.
Soria, sô-rê-â.
Sor'rên'to.
Soudan, sôo'dân'.
Southampton, sùth-hâmp'tûn.
South bend, south bënd'.
Spain, spân.
Spalatro, spâ-lâ'trô.
Spandau, spân'dow.
Spanish, spân'îsh.
Sparta, spâr'tâ.
Spartanburg, spâr'tân-bûrg.
Spartel, spâr-têl.
Spartivento, spâr'tê-vên'tô.
Spencer, spên'sêr.
Sperren, spêr'rên.
Spey, spî.
Speyer, spê'r.
Spezia, spê'tsê-â.
Spier, spî'r.
Spitzbergen, spîts-ber'gen.
Spitzkopf, spets-kôpf'.
Spô-kânê'.
Spree, sprâ.
Springfield, spring'fêld.
Squam, skwam.
Stadland, stât'lând.
Staffa, stâ'fâ.
Stafford, stâ'fôrd.
Stalimi, stâl'im-ê.
Stamford, stâm'fôrd.
Stanislawow, stân-is-lâ'wôv.
Stanley, stân'lî.
Stanovoi, stân'ô-voî.
Stargard, stâr'gârt.
Starkville, stârk'vîl.
Staten, stâ'tên.
Statesboro, stâts'bûr-p.
Stationsville, stâts'vîl.
Staunton, stân'tôn in Virginia; stân'tôn, or stân'tôn in Eng.
Stavanger, stâv-âng'gêr.
Stellacoomb, stê-lâ-koom'.
Steppe, stêp.
Stettin, stê'tên.
Steuenville, stê'bên-vîl.
Stillwater, stîl'wôt-êr.
Stokholm, stôk'hôlm.
Stokton, stôk'tôn.
Stoke, stôk.
Stolpe, stôl'pê.
Stonington, stôn'îng-tôn.
Stralsund, strâl'sônd.
Strandja, strand'yâ.
Strasbourg, strâs'bûrg; Fr. pron. strâs'boor'; Ger. Strass-burg, strâs'bôorg.
Strellitz, strê'lîts.
Struma, strû'mâ.
Stuart, stû'ârt.
Stuhlweissenburg, stûl-wî'sên-bûrg.
Stura, stj'râ.
Sturgeon, stj'rjôn.
Stuttgart, stj't'gârt; Ger. pron. stjô't'gârt.
Styr, stêr.
Suakin, su-â-kîn.
Su-chau', or su-chow, or soo-Suchona, soo-kô-nâ. [choo'.
Suede, soo'fâ.
Sudetic, sù-dê'tîk.
Suez, sôz'êz; Arab pron. sôz-êz', or sôz-âz'.
Suffield, sâf'êld.
Suffolk, sâf'ôk.
Suir, shûr.
Suliman, sul'imân.
Syl-ly', or Sool-loo', or Zulu.
Suna Paz, sî'nâ-pâz.
Sumatra, sôo-mâ'trâ.
Sumba, sôm-bâ.
Sumbawa, sôm-bâ-wâ.
Sumterville, sump'têr-vîl.
Sunapee, sùn-â-pê.
Sunbury, sùn'ber-i.
Sunda, sùn'dâ.
Sunderland, sùn'dêr-land.
Sunflower, sùn'flou-êr.
Sungari, sùn-gâ'rê.
Sur, sôor.
Surabaya, sôo-râ-bî-â.
Surat, sôo-râ't.
Surinam, sôo-rî-nâm'.
Suzannah, sù-zân-â.
Su-quehanna, sù'skwê-hân-â.
Sutlej, or Sutlee, sût'lêj.
Sutton, sût'tôn.
Suwalki, su-wâl'kê.
Suwanee, sù-wâ-nê.
Swabian, swâ-bî-ân.
Swanee, swôn'ê.
Swartwout, swârt'wout.
Sweden, swê'dên.
Switzerland, swîts'êr-land.
Syene, sî-ê-nê.
Syra, sê'râ.
Syrauce, sîr-â-kûs.
Syria, sîr'î-â.
Szamos, sô'môsh'.
Szarvas, sôr'vôsh'.
Szegedin, sêz'êd'ên', or sêz'êd'-în'.
Solnok, sôl-nôk.

Tabago, tâ-bâ'gô.
Tabatinga, tâ-bâ-tîng-gâ.
Ta'bor, tâ'bor, or tâ'bor.
Tabris, or Tabriz, tâ-brêz'.
Tacubaya, tâ-kî-bî-â.
Tad'mor.
Tadousa, tâ-doo-zâ.
Taflelt, tâ-fê-lê't.
Tahamic, tâ-gân'îk.
Tagus, tâ'gûs.
Tahoe, tâ-hô.
Tajuling, tâ-yü-ling'.
Takale, tâ-kâ'lâ.
Talavera, tâ-lâ-vâ-rî-â.
Talahuana, tâ-lâ-hwâ'nâ.
Tahlequah, tâ-lê-kwâ'.
Tahiti, tâ-hê'tî.
Talladega, tâ'l-â-dê-gâ.
Tallahassee, tâ'l-â-hâs'ê.
Tallapoosa, tâ'l-â-pôo'sâ.
Tallulah, tâ-lû-lâ.
Tamagaming, tâ-m-â-gâ-[mîng'.
Tambo, tâ'm'bô.
Tampa, tâ'm'pâ.
Tampico, tâ-m-pê'kô.
Tannarivo, tâ-nâ-rê-vôo'.
Tanaro, tâ-nâ-rô.
Tanganyika, tân-gân-yê'kâ.
Täng chau'.
Tangier, tân-jêr'.
Tansit, tâ'n'sî't.
Tao, tâ'ô, almost tow.
Taos, tâ'ôs, almost tous.
Tapajos, tâ-pâ'zhos, or tâ-pâ-Tapaling, tâ-pâ'lîng'. [hôs.
Tar, târ.
Taranto, tâ-rân'tô.
Tarawa, tâ-râ-wâ.
Tarbes, târb.
Tarifa, tâ-rê'fâ.
Tarija, tâ-rê'hâ.
Tarim, tâ'rêm.
Tarma, tâ'r-mâ.
Tarn, târn.
Tarnopol, târn-ô'pôl.
Tarnov, târ'nôv'.
Taro, tâ-rô.
Tarragona, târ-râ-gô'nâ.
Tarsia, târ'sî-â.
Tarsus, târ'sûs.
Tâsh-kênd'.
Tasman, tâz'mân.
Tasmania, tâz-mâ'nî-â.
Ta Siue Shan, tâ sê-wâ-shan'.
Tatra, tâ'trâ.
Taurus, tô'nôos.
Taunton (Eng.), tân'tôn.
Taunton (U. S.), tân'tôn.
Taurus, tâ'rûs.
Tavuen, tâ-yoo-ân'.
Tehad, châd.
Tehukeches, chê'kôk'chêz.
Tebu, tâ'bû.
Tiburon, tâ-bû'rôn.
Teche, tesh.
Teffe, tef'fâ.
Tegucigalpa, tâ-gû-se-gâl'pâ.
Tehama, tâ-hâ'mâ.
Teheran, tê'hârân'.
Tehern, tê'mârân'.
Tehuantepec, tâ-wân-tâ-pêk'.
Tejo, tâ-zhê.
Tejon, tâ-zhôn.
Temes, têm'êsh'.
Temesvar, têm-êsh-vân'.
Temk, têmk.
Tenancingo, tâ-nân-sîng'gô.
Teneriffe, tèn'îr'îf.
Tenez, tâ-nêz.
Tengri Nor, tâ'n'grê nôr.
Tennessee, tèn'ês-ê'.
Terecero, têr-sâ'rô.
Terek, tâ-rêk'.
Tergovist, têr'gô-vîst.
Terre Haute, têr'ê hôt; Fr. pron. têt'hôt, or têr'ê-hôt.
Tesintlan, tê-sênt'lân.
Teruel, tâ-rû-êl'.
Tête, tât.
Teterev, tâ-tê-rêv'.
Teton, têtôn.
Teulade, tê-lî-lê-dâ.
Tevere, tâ'vê-râ.
Texel, têx'el.
Tezeuco, têt-zê'kô.
Thaba Bossiou, tâ-bâ' bô's'ôo'.
Thames, têmz; thâmz, in Con-Thaya, tî-â [necticut.
Thebes, thêbz.
Theiss, tîs.
Thera, thê'râ. [stât'.
Theresienstadt, têr-â-sê-ên-Theresina, tâ-râ-zê'nâ.
Thermia, thêr-mê-â.
Thermopylae, thêr-môp'ê-lê.
Thian Shan, tê-ân' shân.
Thibet, thî'b'et, or thî-bê't.
Thibodeaux, thî'b'ô-dô'.
Thomas, tô'm-âs.
Thomasville, tô'm-âs-vîl.
Thome, tô'mâ.

Thorne, tôrn.
Thurso, thûr'sô.
Tiber, tî'ber.
Tiberias, tî-bê'rî-âs.
Ticonderoga, tî'kôn'dêr-ô-gâ.
Tidkelt, tê'dê-kêlt'.
Tierra-tsin, tê-ên'tsêng'.
Tierra del Fuego, tê-êr-â dêl Tiete, tê-â'tî. [tî-â'gô.
Tiflis, tîf-lê's'.
Tigris, tî'grîs.
Tikeri, tê-kâ'rê.
Tilsit, tîl'sî't.
Timbuctoo, tím-bûk'tôo.
Timur, or Timor, tê-môor'.
Tino, tê'nô, or Tinos or Tenos.
Tintellus, tím-tê-lôost'.
Tippacanoe, tîp'ê-kâ-nôo'.
Tipperrary, tîp-pê-râ-rê.
Titicaca, tê-tê-kâ-kâ.
Tiuno, tê-ü'no.
Tivoli, tîv'ô-lê, or tê'vô-lê.
Tixtlan, tîxt'lân.
Tlaxcala, or Tlascalca, tlâs-kâ-Tlaxco, tlâs'kô. [lâ.
Tobol, tô-bôl'.
Tobolsk, tô-bôlsk'.
Tocantins, tô-kân-tênz'.
Todos Santos, tô'dôce sân'tô-s.
Tokay, tô-kâ'î: Hung. pron. tô-Tokel, tô-ke-î' [koi'.
Tokeshan, tôk'shân.
Toledo, tô-lê'dô; Sp. pron. tô-Tollma, tô-lê'mâ. [lâ'ô.
Tolland, tô'lând.
Toll Pass, tô-pâs.
Tolosa, tô-lô'sâ.
Tolna, tô-lî-â.
Tom, tôm.
Tombigbee, or Tombigby, tôm-Tombo, tôm'bô. [bîg'bê.
Tomsik, tômsk.
Tonga, tông-gâ.
Tarim, tâ'rêm.
Torna, tôr'nê-ô. Sometimes written Torneo.
Toronto, tô-rô'tô.
Torreus, tôr'enz.
Torres, tôr'ês.
Tortosa, tô'r'tô'sâ.
Tortugas, tô'r'tô'gâ.
Totten, tô'tên.
Toulon, tôo'lôn'.
Toulouse, tôo'lôoz'.
Touraine, tû'rân'.
Tournay, tôor-nâ.
Tours, tôor.
Towanda, tô-wôn-dâ.
Trafalgar, trâ'fâl-gâr'.
Tralea, trâ-lê-â.
Trani, trân'ê.
Transvaal, trânsvâl'.
Transylvania, trân-sîl-vâ'nî-â.
Tras os Montes, trâ'sôce môn-têz'.
Traun, trôwn.
Travancore, trâv-ân-kôr'.
Trév'ers.
Trév'orse.
Trebizond, trêb'î-zônd.
Trent, trênt.
Trenton, trênt'ôn.
Tres Montes, trê's môn'tes.
Tres Puntas, trê's plû'tas.
Trevet, trêvz.
Treviso, trê vî-zô.
Tricala, trê-kâ'lâ.
Trier, trîr.
Trieste, trê-êst, or trê-ês'tâ.
Tringano, trîng-â'no.
Trinidad, trî'nî-dâd'.
Tripoli, trîp'ô-lî.
Tripolitza, trîp-ô-lî-zâ.
Trombetas, trôm-bê'tâs.
Tronthelm, or Dronthelm, trôn'd'yâm.
Troppan, trop'paw.
Troy, trôl.
Troyes, trwâ. [yô.
Trujillo, or Truxillo, trûj-hêl'.
Truro, trû-rô.
Tshnan, tsh-nân'.
Tsuareg, tô-âr-êz'.
Tuat, tî-tê.
Tubac, tû-bâk'.
Tucson, tôok'sôn.
Tucuman, tû-kî-mân'.
Tula, tû-lâ.
Tulancingo, tû-lân-sêng'gô.
Tulare, tôo-lâ'rê.
Tundja, tôond'jâ.
Tundra, tôond'râ.
Tunisia, tû'nî-sî-â.
Tunguska, tôong-gôos'kâ.
Tuolumne, tôo'lûm-nê.
Turin, tû-rîn.
Turran, tû'rân, or tû-rîn'.
Turkistan, tôok'kê's-tân'.
Turkey, tûr'kî.

g, as in dig; ô, as in dôue; y, as in ryde like ô, y, as in pysh; z, as in zörn; z, e, g, q, somewhat like ü, as in fru'grânt, Sa'lem, Hud'gon. ch, as in thin; rh, as in with. d, nearly like ru.

Tuscaloosa, tús'ká-ló'sq.
Tusean, tús'kán.
Tusecumbria, tús'kún-ró'ra.
Tusecumbria, tús'kún'bi-g.

U.

Ubort, ú'bórt.
Ucariy, ú-ki-á'ré.
Ucayali, ú-ki-á'ré.
Udine, ú-dén'.
Udong, ú-dóng, ú-dóng'.
Udskoi, ú-ó'skoi, ú-d'skoi'.
Uintah, ú-ntá.
Uit, wist.
Ujiji, ú-je'je.
Ulenborg, ú-lé-á-bórg.

V.

Vaal, váil.
Vaduz, vá'dúts.
Valais, vá'lá'.
Valdál, vá'dál.
Valdepeñas, váil-dá-pán'yás.

Va-len'ti-a.
Valladolid, vá'lá-dó-lid'; Sp.
Vallejo, vá'lé-á-lé'p.
Vallejo, vá'lé-á'hó, or vá'lé-á'hó.
Valparaiso, vá'l-pá-rí'só.

W.

Waag, wá'g, almost wá'g.
Waal, wá'il.
Wabash, wá'básh.
Wachusett, wá-chú'sét.
Wabasha, wá'bá-shá.
Wadi, wá'dí.
Wadesboro, wádz'bú-r-q.

Warrenton, war'én-ton.
Warsaw, war'sá.
Wartine, wá'rín.
Warwick, wó'r'ík in Eng.; wó'r'ík, or wó'r'ík in U. S.
Wartburg, wá'r-túrg.

Wicklów, wí'k'ló.
Wiesbaden, wés'bá'den.
Wieliczka, wé'lich'ká.
Wight, wít.
Wilkesbarre, wí'ks'bá-r-í.

Yanteles, yán-tá'lés.
Yao, yá'ó.
Yapura, yá-pú'rá.
Yár-kánd'.
Yarmouth, yá'r'múth.

AREA AND POPULATION OF THE STATES AND TERRITORIES OF THE UNITED STATES.

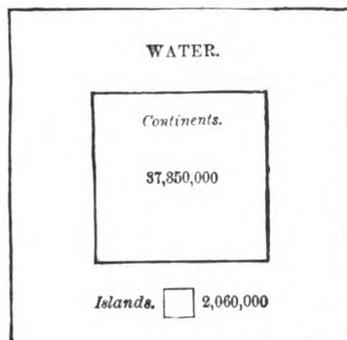
Table with 12 columns: States, Square Miles, Population, Inhabitants to a sq. mile, Capital, Population of Capitals, States, Square Miles, Population, Inhabitants to a sq. mile, Capital, Population of Capitals. Lists states like Alabama, Arkansas, California, etc., and territories like Alaska, Arizona, etc.

The States, 1,984,467 Square Miles; Inhabitants per Square Mile, 19.21. The Territories, 1,619,417 Square Miles; Inhabitants per Square Mile, 0.27. Total, 3,603,884 Square Miles; Total Population, 33,925,600; Inhabitants per Square Mile, 10.70.

GENERAL STATISTICS OF THE GLOBE.

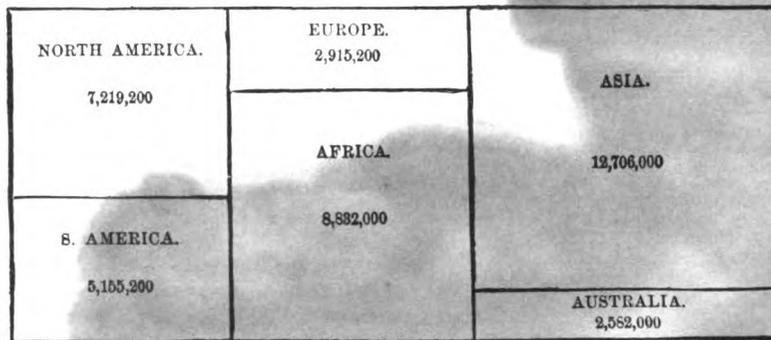
(The figures give the areas in geographical miles.)

RELATIVE AREA OF LAND AND WATER OF THE GLOBE.



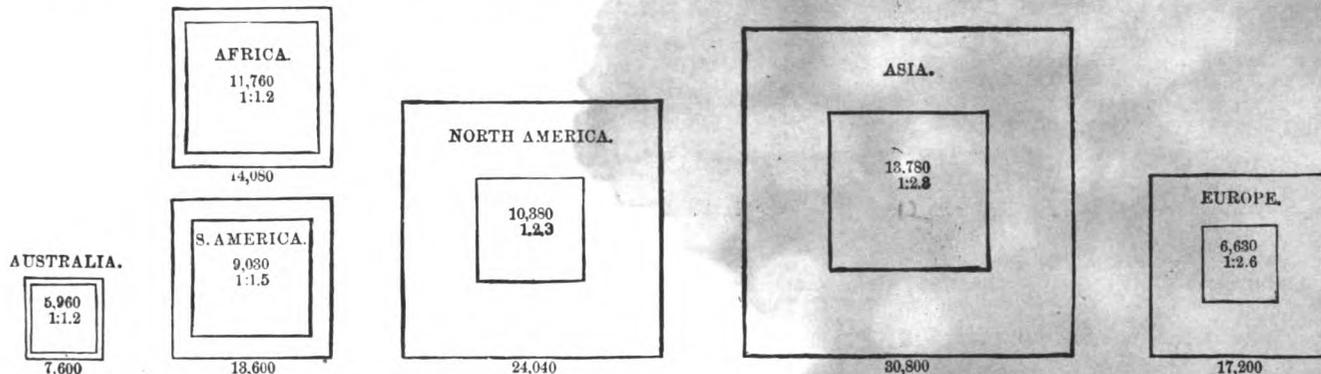
Surface of globe, 148,180,000.
 " " water, 108,770,000.
 " " land, 39,410,000.

THE AREAS OF CONTINENTS COMPARED.



WESTERN HEMISPHERE. NEW WORLD. 12,374,400.
 EASTERN HEMISPHERE.—OLD WORLD. Europe—Africa. 11,747,200. Asia—Australia. 15,288,400.

LENGTH OF REAL COAST-LINE IN EACH CONTINENT, COMPARED WITH THAT ENCLOSING ITS CONSOLIDATED AREA.



The figures at the bottom of the outer squares are the real coast-line (with its windings), in geographical miles. The figures in the inner squares give the length of the straight lines enclosing the consolidated area also in geographical miles. The figures in the centre express the relation between the two.

RELATIVE AREA OF THE HIGHLAND

NORTH AMERICA.	EUROPE. Highland.	ASIA.
	Lowland.	
Highland.	AFRICA.	Highland.
Lowland.		
S. AMERICA. Highland.	Lowland.	Lowland.
Lowland.		
	Lowland.	AUSTRALIA. Lowland.

AND LOWLAND IN EACH CONTINENT.

AREAS AND POPULATIONS OF THE PRINCIPAL COUNTRIES OF THE WORLD.

Name of Countries.	Date of Census.	Areas in English sq. miles.	Population.	Inhabitants on a sq. mile.	Name of Countries.	Date of Census.	Areas in English sq. miles.	Population.	Inhabitants on a sq. mile.
NORTH AMERICA.					Central America.				
NORTH AMERICA (Continent and Islands).....	1871	8,929,660	51,964,000	5.8	Central America.....	1871	188,373	2,671,000	14.2
Greenland.....	-	759,817	10,000	0.01	British Honduras.....	1871	13,500	25,600	1.9
British North America.....	-	3,524,147	3,888,600	1.1	Guatemala.....	1871	40,779	1,180,000	28.9
Bermuda.....	-	24	11,800	491.7	San Salvador.....	1871	7,335	600,000	81.8
St. Pierre and Miquelon (French).....	-	81	4,000	49.0	Honduras.....	1871	47,093	350,000	7.4
United States with Alaska.....	1870	3,603,884	38,925,600	10.70	Nicaragua.....	1871	58,171	350,000	6.0
Mexico.....	1869	761,675	9,173,000	12.0	Costa Rica.....	1870	21,495	165,000	7.7

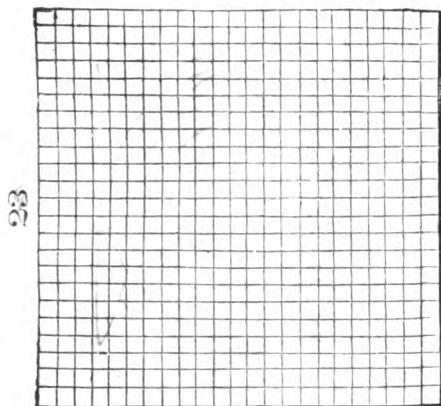
AREAS AND POPULATIONS OF THE PRINCIPAL COUNTRIES OF THE WORLD—Continued.

Name of Countries.	Date of Census.	Areas in English sq. miles.	Population.	Inhabitants on a sq. mile.	Name of Countries.	Date of Census.	Areas in English sq. miles.	Population.	Inhabitants on a sq. mile.
West Indies.					EUROPE.—Continued.				
West India Islands.....	1871	91,658	4,214,000	45.9	Denmark.....	1870	14,753	1,784,741	120.9
British Possessions together.....	1871	12,635	1,054,100	83.4	Faro e and Iceland.....	1870	40,267	79,755	1.7
Jamaica.....	1870	4,251	506,200	119.0	Central States.				
Spanish Possessions together.....	1870	49,480	2,068,900	43.6	British Empire.....	1871	8,050,000	171,609,600	21.3
Cuba.....	1870	45,880	1,396,500	30.4	Great Britain and Ireland.....	1871	121,315	31,817,100	262.3
Porto Rico.....	1864	3,625	616,000	165.5	Asiatic Colonies.....	1871	936,725	162,497,800	173.4
French Possessions.....	1868	1,017	306,200	301.0	Australian Colonies.....	1871	3,077,701	1,958,600	0.64
Dutch Possessions.....	1870	368	35,500	96.3	African Colonies.....	1871	256,982	1,859,060	7.2
Danish Possessions.....	-	118	37,800	317.8	N. and S. American Colonies.....	1871	3,654,978	5,078,200	1.4
Swedish Possessions.....	-	8	2,900	362.5	France.....	1866	204,091	26,469,800	178.7
Haytian Republic.....	-	10,205	572,000	56.0	Belgium.....	1869	11,373	5,021,300	441.5
Dominican Republic.....	-	17,827	136,500	7.6	Holland.....	1870	12,680	3,688,300	290.9
SOUTH AMERICA.					German Empire.....				
SOUTH AMERICA (Continent and Islands).....	-	6,959,447	25,675,000	3.8	Prussia, including Laenburg.....	1871	208,619	41,058,100	197.0
United States of Columbia.....	1870	357,157	3,000,000	8.4	Bavaria (Kingdom).....	1871	134,388	24,693,100	183.7
Ecuador.....	-	218,928	1,300,000	5.9	Saxony (Kingdom).....	1871	29,292	2,556,200	442.3
Peru.....	1871	510,450	2,500,000	4.9	Württemberg (Kingdom).....	1871	7,532	1,818,500	241.4
Bolivia.....	-	535,933	2,000,000	3.7	Grand Duchies.....	1871	18,940	3,572,000	188.7
Chili.....	1869	132,615	2,000,000	15.1	Baden.....	1871	5,912	1,461,400	247.0
Patagonia and Tierra del Fuego... Falkland Islands.....	- -	376,462 4,741	24,000 700	0.06 0.14	Dutchies.....	1871	4,549	1,019,400	224.1
Venezuela.....	-	368,238	1,500,000	4.2	Principalities.....	1871	2,174	476,300	218.9
British Guiana.....	1871	99,927	152,900	1.5	Free Cities, Hamburg and Bremen Lübeck.....	1871 1871	368 5,596	513,700 1,549,500	139.6 276.8
Dutch Guiana or Surinam.....	1870	59,798	59,900	1.0	Alsace and Lorraine.....	1871	999	197,500	201.7
French Guiana.....	-	35,079	25,200	0.7	Luxemburg.....	1871	999	197,500	201.7
Empire of Brazil.....	-	3,253,029	10,000,000	3.07	Austrian Empire.....	1869	240,348	35,904,400	149.4
Paraguay.....	1871	63,781	1,000,000?	15.6	Bohemia.....	1869	20,061	5,140,500	256.3
Uruguay.....	1871	66,721	300,000	6.5	Galicia.....	1869	30,309	5,444,700	179.6
Argentine Republic.....	1869	871,848	1,812,000	2.1	Hungary.....	1869	82,827	11,188,500	135.8
Galapagos Islands, to Ecuador....	-	2,954	unknown	-	Transylvania.....	1869	21,216	2,115,000	96.6
Aurora and South Georgia Island..	-	1,786	uninhabited	-	Switzerland.....	1870	15,992	2,669,100	166.9
AFRICA.					Southern States.				
AFRICA (Continent and Islands)....	-	11,556,620	192,520,000	16.07	Spain.....	1867	192,966	16,374,800	84.8
North Africa (total).....	1870	4,003,638	20,420,000	5.1	Portugal.....	1868	34,501	3,995,200	112.9
Marocco.....	1869	259,586	2,750,000	10.6	Italy.....	1871	114,295	26,716,800	233.7
Algeria.....	1869	258,312	2,921,100	11.3	Greece.....	1870	19,353	1,457,900	75.3
Tunis.....	1869	45,717	2,000,000	43.7	Turkish Empire (Europe and Asia).....	-	871,738	32,893,300	37.7
Tripoli, Barka, and Fezzan.....	-	344,416	750,000	2.2	Roumania.....	1870	46,710	4,500,000	96.3
Egyptian Dominion.....	1871	659,104	800,000	12.1	Servia.....	1871	16,817	1,319,300	78.4
Sahara.....	1871	2,436,503	4,000,000	1.6	ASIA.				
Central Africa (total).....	1871	1,449,597	77,300,000	53.1	ASIA (Continent and Islands).....	-	16,923,542	794,000,000	46.9
Middle Soudan.....	1871	631,034	38,800,000	61.4	Russia in Asia.....	1870	5,944,633	10,730,000	1.8
West Soudan, Senegal and Upper Guinea.....	1871	818,564	38,500,000	47.0	Caucasus Lands.....	1870	169,630	4,661,800	27.5
French Senegambia.....	1871	96,529	209,200	2.2	Siberia.....	1870	4,717,991	3,327,600	0.75
Liberia.....	1871	9,576	718,000	74.9	Western Asia.				
Dahomey.....	1871	3,985	180,000	47.7	Turkestan.....	1871	459,206	7,870,000	17.3
British Possessions.....	1868	17,115	577,300	32.7	Turkey in Asia.....	-	672,521	16,463,000	24.4
Portuguese Possessions.....	1869	35,878	8,500	0.2	Arabia.....	1871	1,026,038	4,000,000	3.9
Equatorial Africa.....	-	1,522,264	43,000,000	28.2	Persia.....	1870	635,965	5,000,000	7.8
East Africa (total).....	-	1,594,655	29,700,000	18.6	Afghanistan (with Herat).....	1870	251,165	4,000,000	15.9
Abyssinia.....	-	158,384	3,000,000	18.9	Beloochistan.....	1870	106,767	2,000,000	18.7
South Africa (total).....	-	1,965,910	16,000,000	8.1	Eastern Asia.				
Portuguese Poss. (West Coast)....	-	312,522	9,000,000	28.7	India and British Burmah.....	1871	1,558,744	206,225,600	132.3
Portuguese Poss. (East Coast)....	-	382,254	300,000	0.8	Ceylon.....	1871	24,705	2,405,300	97.3
Cape Colony.....	1871	221,311	682,600	3.1	Indo-China.....	1871	752,088	21,018,100	27.9
Natal.....	1867	17,801	269,400	15.1	East Indian Archipelago.....	1871	799,356	32,620,000	40.8
Orange River Free State.....	1867	42,473	37,000	0.9	Chinese Empire.....	1871	3,741,847	446,500,000	119.3
Transvaal Republic.....	1867	114,358	120,000	10.5	China Proper.....	1871	1,560,512	200,000,000	128.2
Free Kafir Land.....	1867	16,035	35,000	2.2	Japan.....	1871	149,399	34,785,300	232.8
Islands in the Atlantic Ocean (total).....	-	4,034	465,000	115.2	Eastern Turkestan.....	1870	595,395	580,000	0.9
Madeira and Azores.....	1868	1,311	363,800	278.1	AUSTRALIA AND POLYNESIA.				
Other Islands in the Atlantic Ocean (total).....	-	2,723	99,100	36.4	AUSTRALIA (Continent and Islands).....	-	3,425,209	4,305,300	1.2
Madagascar.....	-	233,871	6,000,000	25.6	New South Wales.....	1871	308,560	501,600	1.6
Zanzibar.....	-	228,573	5,000,000	21.9	Victoria.....	1871	88,451	729,900	8.25
Other Islands in the Indian Ocean (total).....	-	4,681	620,000	132.4	South Australia.....	1871	380,602	189,000	0.49
EUROPE.					Northern Territory.....				
EUROPE (Continent and Islands)....	-	3,848,954	301,600,000	78.4	-	-	523,531	-	-
Northern States.					Queensland.....				
Russian Empire (Europe and Asia).....	1867	8,003,778	81,925,400	10.2	Western Australia.....	1871	668,259	120,100	0.18
Russia in Europe (with Poland)....	1867	2,059,227	71,195,400	34.5	Tasmania.....	-	975,824	24,800	0.02
Sweden.....	1870	170,592	4,168,500	24.4	-	-	26,215	99,300	3.8
Norway.....	1870	122,280	1,753,000	14.3	New Zealand.....	-	106,259	294,000	2.7
					New Guinea.....				
					274,618				
					Sandwich Islands.....				
					7,633				
					Islands under French rule.....				
					11,097				

STATISTICS OF THE GLOBE.

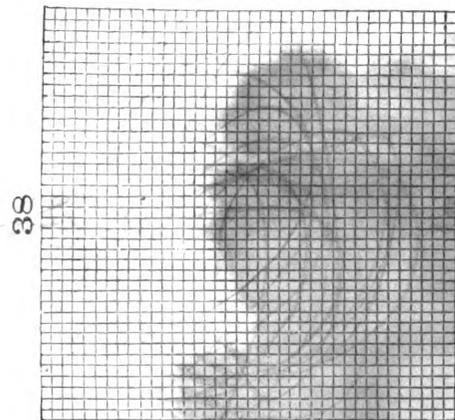
DENSITY OF POPULATION IN EACH CONTINENT.*

THE GLOBE.



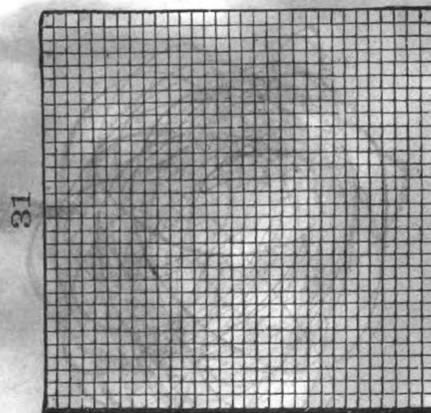
Total population, 1,288,000,000.
Average on each geographical square mile, 33.

EUROPE.



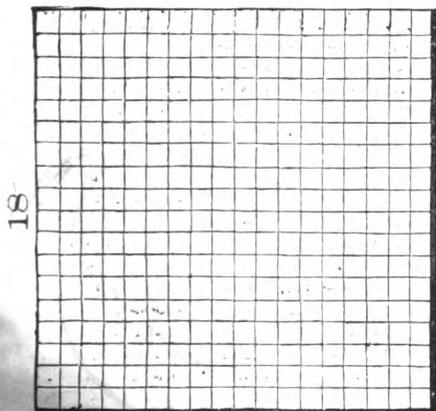
Total population, 272,000,000.
Average on each geographical square mile, 93.

ASIA.



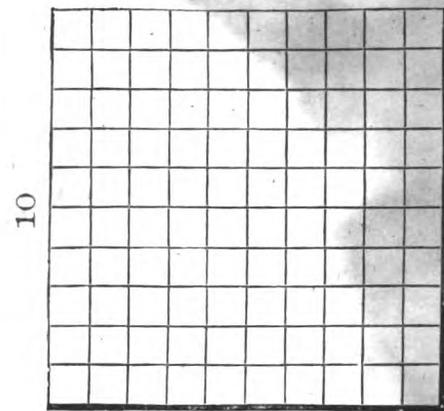
Total population, 755,000,000.
Average on each geographical square mile, 59.

AFRICA.



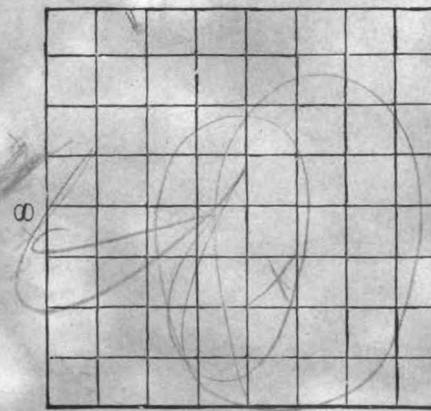
Total population, 190,000,000.
Average on each geographical square mile, 22.

NORTH AMERICA.



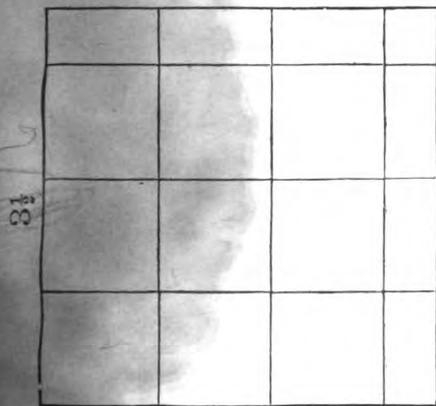
Total population, 49,000,000.
Average on each geographical square mile, 7.

SOUTH AMERICA.



Total population, 20,000,000.
Average on each geographical square mile, 4.

AUSTRALIA.



Total population, 2,000,000.
Average on each geographical square mile, 0.8.

* NOTE.—Each large square represents 16 geographical square miles. The number of the smaller squares within each gives the average number of inhabitants to each large square. The large square of Australia is divided into squares and fractions of squares.

POPULATION OF THE LARGEST CITIES OF THE WORLD COMPARED.

London (1871).....	3,251,800	Vienna (1869).....	833,900
Soo-choo (Suchau), China.....	2,000,000	St. Petersburg (1869).....	667,000
Paris (1866).....	1,825,300	Bangkok, Siam.....	500,000
Peking (1845).....	1,648,800	Liverpool (1871).....	493,300
Yeddo, Japan.....	1,554,800	Glasgow (1871).....	479,200
Canton, China.....	1,236,000	Madras (1871).....	395,400
Constantinople (1864).....	1,075,000	Naples (1872).....	448,700
New York (1870).....	942,292	Ningpo (1865).....	400,000
Calcutta, India (1872).....	447,600	Shanghai, China.....	276,600
Chang-chau (Fokien), China (1863).....	1,000,000	Osaka, Japan.....	373,000
Bombay (1872).....	644,400	Manchester (1871).....	355,700
Hang-chau, China.....	800,000	Moscow (1867).....	399,300
Berlin (1873).....	929,000	Birmingham (1871).....	343,700
Philadelphia (1870).....	674,022	Lyon (1866).....	324,000
Fuh-chau, China.....	600,000	Dublin (1871).....	295,800
Rio Janeiro, Brazil (1867).....	420,000	Marseille (1866).....	300,100
Lucknow, India (1871).....	284,800		

TABLE,
SHOWING THE
POPULATION OF THE PRINCIPAL CITIES OF THE WORLD.

North America.		North America — Continued.		North America — Continued.		South America — Continued.	
UNITED STATES.				BRITISH AMERICA.		ARGENTINE REPUB.	
Census of 1870.		Population.		Population.		Population.	
I. NORTH ATLANTIC STATES.		III. S. ATLANTIC STATES.		MEXICO.		BRAZIL.	
Boston, Mass.	250,526	W. Troy, N. Y.	10,693	Mexico (1862)	210,300	Rio Janeiro (1867)	420,000
Providence, R. I.	68,904	Altoona, Pa.	10,610	La Puebla (1869)	75,500	Bahia	120,000
New Haven, Conn.	50,840	Portsmouth, Va.	10,492	Guadalajara (1869)	70,000	Pernambuco	90,000
Worcester, Mass.	41,105	Rondout, N. Y.	10,114	Guanajuato (1869)	65,000	Maranhão, San Luiz de	40,000
Lowell, Mass.	40,928	Ogdensburg, N. Y.	10,076	Queretaro (1869)	47,600	Para	135,000
Cambridge, Mass.	39,634	IV. GULF STATES.		Jalapa (1869)	37,200	Europe.	
Hartford, Conn.	37,180	Charleston, S. C.	48,956	San Luis (1869)	34,600	NORTHERN STATES.	
Portland, Me.	31,413	Savannah, Ga.	28,235	Merida (1869)	23,500	RUSSIA.	
Lawrence, Mass.	28,921	Atlanta, Ga.	21,789	Monterey, (1869)	13,500	St. Petersburg (1869)	667,000
Charlestown, Mass.	28,323	Augusta, Ga.	15,389	Zacatecas (1869)	15,400	Moscow (1867)	289,200
Lynn, Mass.	28,233	Wilmington, N. C.	13,446	Vera Cruz (1869)	10,000	Warsaw (1867)	251,600
Fall River, Mass.	26,766	V. CENTRAL STATES.		CENTRAL AMERICA.		Odessa (1867)	121,200
Springfield, Mass.	26,703	St. Louis, Mo.	310,864	New Guatemala, Guatemala	40,000	Kishenew	104,000
Salem, Mass.	24,117	Chicago, Ill.	298,977	Leon, Nicaragua	25,000	Riga (1867)	97,700
Manchester, N. H.	23,536	Cincinnati, O.	216,239	San Jose, Costa Rica	25,000	Saratov (1867)	93,200
New Bedford, Mass.	21,320	Louisville, Ky.	100,753	S. Salvador, San Salvador	15,000	Vilna (1867)	79,300
Bridgeport, Conn.	18,969	Cleveland, O.	92,829	Managua, Nicaragua	10,000	Kasan (1867)	78,600
Taunton, Mass.	18,629	Detroit, Mich.	79,577	Comayagua, Honduras	8,000	Kiev (1867)	70,600
Chelsea, Mass.	18,547	Milwaukee, Wis.	71,440	WEST INDIES.		Kharkov (1867)	60,000
Bangor, Me.	18,289	Indianapolis, Ind.	48,244	Havana, Cuba (1861)	35,000	Tula (1867)	58,100
Norwich, Conn.	16,653	Memphis, Tenn.	40,226	Kingston, Jamaica	26,000	Berdichev (1867)	52,800
Burlington, Vt.	14,387	Kansas City, Mo.	32,260	Matanzas (1853)	20,000	Astrakhan (1867)	47,800
Lewiston, Me.	13,600	Toledo, O.	31,584	Port-au-Prince, Hayti	15,000	Nijni-Novgorod (1867)	40,700
Haverhill, Mass.	13,092	Columbus, O.	31,274	St. Domingo, Dominican Rep.		Voronez (1867)	41,322
Newburyport, Mass.	12,595	Dayton, O.	30,473	South America.		SWEDEN.	
Newport, R. I.	12,521	Nashville, Tenn.	25,865	VENEZUELA.		Stockholm (1871)	136,500
Concord, N. H.	12,241	Covington, Ky.	24,505	Caracas (1869)	47,000	Goteborg (1869)	55,000
Waterbury, Conn.	10,826	Quincy, Ill.	24,052	Valencia	25,000	Norrköping (1868)	23,600
Nashua, N. H.	10,543	Peoria, Ill.	22,849	Maracaibo	25,000	Malmö	23,300
Biddeford, Me.	10,282	Evansville, Ind.	21,830	Barcelona	12,000	NORWAY.	
II. MIDDLE ATLAN. STATES.		Davenport, Iowa	20,038	UNITED STATES OF		Christiania (1865)	63,500
New York, N. Y.	942,292	St. Paul, Minn.	20,030	COLOMBIA.		Bergen (1865)	30,400
Philadelphia, Pa.	674,022	St. Joseph, Mo.	19,565	Bogota	45,000	Drontheim (1865)	19,200
Brooklyn, N. Y.	396,099	Dubuque, Iowa	18,434	Popayan	33,000	DENMARK.	
Baltimore, Md.	267,354	Minneapolis and E. Minneapo- lis, Minn.	18,079	Cartagena	18,000	Copenhagen (1870)	151,200
Buffalo, N. Y.	117,714	Leavenworth, Kan.	17,873	Socorro	12,000	Odense (1870)	17,000
Washington, D. C.	109,199	Fort Wayne, Ind.	17,718	Panama	11,000	CENTRAL STATES.	
Newark, N. J.	105,059	Springfield, Ill.	17,364	Aspinwall	7,000	ENGLAND.	
Pittsburg, Pa.	86,076	Grand Rapids, Mich.	16,507	Lima (1871)	160,100	London (1871)	3,251,800
Jersey City, N. J.	82,546	Terre Haute, Ind.	16,103	Arequipa	35,000	Liverpool (1871)	489,200
Albany, N. Y.	76,216	New Albany, Ind.	15,396	Cuzco (1857)	30,000	Manchester (1871)	355,200
Rochester, N. Y.	62,386	Newport, Ky.	15,087	Ayacucho	25,000	Birmingham (1871)	349,200
Alleghany City, Pa.	53,180	Burlington, Iowa	14,930	Pasco	14,000	Leeds (1871)	299,200
Richmond, Va.	51,038	Lexington, Ky.	14,801	Callao	10,000	Sheffield (1871)	299,200
Troy, N. Y.	46,465	Bloomington, Ill.	14,790	ECUADOR.		Bristol (1871)	182,500
Syracuse, N. Y.	43,051	La Fayette, Ind.	13,566	Quito	70,000	Salford (1871)	124,800
Scranton, Pa.	35,092	Sandusky, O.	13,000	Guayaquil	20,000	Newcastle on Tyne (1871)	128,200
Reading, Pa.	33,930	Keokuk, Iowa	12,766	Cuenca	20,000	Bradford (1871)	145,800
Paterson, N. J.	33,579	Fond du Lac, Wis.	12,764	BOLIVIA.		Hull (1871)	121,000
Wilmington, Del.	30,841	Oshkosh, Wis.	12,663	La Paz (1865)	76,400	Portsmouth (1871)	113,000
Utica, N. Y.	28,804	Springfield, O.	12,632	Cochabamba (1865)	40,700	Sunderland (1871)	95,200
Harrisburg, Pa.	23,104	Little Rock, Ark.	12,380	Sucre	24,000	Brighton (1871)	90,000
Trenton, N. J.	22,874	Des Moines, Iowa	12,035	Potosi	22,800	Nottingham (1871)	84,500
Oswego, N. Y.	20,910	Jackson, Mich.	11,447	CHILI.		Preston (1871)	85,000
Elizabeth, N. J.	20,832	E. Saginaw, Mich.	11,350	Santiago (1865)	115,400	Bolton (1871)	82,500
Hoboken, N. J.	20,297	Aurora, Ill.	11,162	Valparaiso (1865)	70,400	Oldham (1871)	82,500
Lancaster, Pa.	20,233	Hamilton, O.	11,081			Norwich (1871)	80,500
Poughkeepsie, N. Y.	20,080	Rockford, Ill.	11,049			SCOTLAND.	
Camden, N. J.	20,045	Madison, Ind.	10,709			Glasgow (1871)	478,200
Erie, Pa.	19,646	Portsmouth, O.	10,592			Edinburgh (1871)	201,700
Wheeling, W. Va.	19,280	Galesburg, Ill.	10,158			Dundee (1861)	80,500
Norfolk, Va.	19,229	Hannibal, Mo.	10,125			Aberdeen (1861)	71,500
Petersburg, Va.	18,950	Council Bluffs, Iowa	10,020				
Auburn, N. Y.	17,225	Zanesville, O.	10,011				
Newburg, N. Y.	17,014	Akron, O.	10,006				
Williamsport, Pa.	16,030	VI. PACIFIC STA. AND TERR.					
Elmira, N. Y.	15,863	San Francisco, Cal.	149,473				
Cohoes, N. Y.	15,357	Sacramento, Cal.	16,283				
New Brunswick, N. J.	15,058	Oakland, Cal.	10,500				
Allentown, Pa.	13,884	Stockton, Cal.	10,066				
Alexandria, Va.	13,570						
Yonkers, N. Y.	12,733						
Binghamton, N. Y.	12,692						
Lockport, N. Y.	12,426						
Georgetown, C. T.	11,384						
Schenectady, N. Y.	11,026						
York, Pa.	11,003						
Rome, N. Y.	11,000						

POPULATION OF THE PRINCIPAL CITIES OF THE WORLD—Continued.

Europe—Continued.		Europe—Continued.		Europe—Continued.		Western Asia—Continued.	
	Population.		Population.		Population.		Population.
IRELAND.		Bremen (1871).....	82,900	Florence (1872).....	167,100	AFGHANISTAN.	
Dublin (1871).....	295,800	Lübeck (1871).....	39,700	Genoa (1872).....	130,300	Candahar.....	100,000
Belfast (1871).....	174,400	BAVARIA.		Venice (1872).....	128,900	Herat (1865).....	100,000
Cork (1871).....	78,400	Munich (1871).....	169,500	Bologna (1872).....	116,000	Cabool.....	70,000
Limerick (1871).....	39,800	Nuremberg (1871).....	82,900	Messina (1872).....	111,900	BELOOCHISTAN.	
FRANCE.		Augsburg (1871).....	51,300	Livorno (1872).....	97,100	Kelat.....	12,000
Paris (1866).....	1,825,300	Wurtzburg (1871).....	40,000	Catania (1872).....	84,400	Eastern Asia.	
Lyón (1866).....	324,000	Ratisbon (1871).....	29,200	Verona (1872).....	67,100	INDIA.	
Marseille (1866).....	300,100	WURTEMBERG.		Padua (1872).....	66,100	Calcutta (1872).....	447,600
Bordeaux (1866).....	194,200	Stuttgart (1871).....	91,600	Modena (1872).....	56,700	Bombay (1872).....	644,400
Lille (1866).....	154,700	Ulm (1871).....	26,300	Bari (1872).....	50,500	Hyderabad (1870).....	400,000
Toulouse (1866).....	126,900	BADEN.		Pisa (1872).....	50,300	Madras (1872).....	395,400
Nantes (1866).....	112,000	Mannheim (1871).....	39,600	Parma (1872).....	45,500	Lucknow (1871).....	284,800
Rouen (1866).....	100,700	Carlsruhe (1871).....	36,600	Brescia (1872).....	38,900	Patna (1857).....	284,100
St. Etienne (1866).....	96,600	Heidelberg (1871).....	30,000	Piacenza (1872).....	35,000	Benares (1866).....	200,000
Brest (1866).....	79,800	AUSTRIA.		GREECE.			
Toulon (1866).....	77,100	Vienna (1869).....	833,900	Athens (1867).....	43,400	Delhi (1869).....	154,400
Le Havre (1866).....	74,900	Pesth, Hungary.....	200,500	Corfu (1867).....	25,300	Sirinagur.....	40,000
Reims (1866).....	60,700	Prague, Bohemia (1869).....	157,300	Zante (1867).....	20,300	INDO-CHINA.	
BELGIUM.		Lemberg, Galicia (1869).....	87,100	TURKEY IN EUROPE.			
Brussels (1869).....	314,100	Gratz, Styrria (1869).....	80,700	Constantinople (1864).....	1,075,000	Bangkok.....	500,000
Antwerp (1869).....	126,700	Brum, Moravia (1869).....	73,500	Bukharest (1860).....	121,700	Singapore (1869).....	150,000
Ghent (1869).....	121,500	Trieste, Illyria (1869).....	120,000	Adrianople (1869).....	100,000	Hue.....	100,000
Liège (1869).....	105,400	Szegedin, Hungary (1869).....	70,200	Salonika (1871).....	85,000	CHINESE EMPIRE.	
Bruges (1869).....	49,800	Theresienstadt, Hungary ('69)	56,300	Jassy (1860).....	65,700	Su-chau.....	2,000,000
HOLLAND.		Buda, or Ofen, Hungary (1869)	54,000	Bosna Serai (1867).....	50,000	Peking (1845).....	1,648,800
Amsterdam (1869).....	264,700	Cracow, Galicia (1869).....	49,800	Gallipoli.....	50,000	Canton.....	1,236,000
Rotterdam (1869).....	116,200	Presburg, Hungary (1869).....	46,500	Western Asia.			
The Hague (1869).....	90,100	SWITZERLAND.		RUS'IA IN ASIA.			
Utrecht (1869).....	59,300	Geneva (1870).....	67,400	<i>(In 1867.)</i>			
Leyden (1869).....	39,300	Zurich (1870).....	56,700	Tashkend (1868).....	80,000	Amoy.....	250,000
Groningen (1869).....	37,600	Basle (1870).....	44,800	Tiflis, Georgia.....	60,900	JAPAN.	
PRUSSIA.		Berne (1870).....	36,000	Irkutsk, } Siberia.....	27,400	Yeddo.....	1,554,900
Berlin (1873).....	929,000	Lausanne, Vaud (1870).....	26,500	Tomsk, }	24,400	Miaco.....	500,000
Breslau (1871).....	208,000	SOUTHERN STATES.		Tobolsk, }	20,300	Osaca.....	373,000
Cologne (1871).....	129,200	SPAIN.		TURKESTAN.			
Königsberg (1871).....	112,100	Madrid (1871).....	332,000	Yarkand.....	120,000	Africa.	
Hanover (1871).....	104,200	Barcelona (1860).....	189,900	Bokhara (1866).....	70,000	Cairo (1871).....	355,900
Frankfort-on-the-Main (1871).....	90,900	Sevilla (1860).....	118,300	Kashgar (1869).....	65,000	Alexandria (1871).....	219,600
Danzig (1871).....	89,100	Valencia (1860).....	107,700	Kokan.....	65,000	Jakoba, Soudan (1867).....	150,000
Magdeburg (1871).....	84,500	Malaga (1860).....	94,700	TURKEY.			
Stettin (1871).....	76,100	Murcia (1860).....	80,800	Damascus.....	200,000	Tunis (1869).....	125,000
Barmen (1871).....	74,500	Cadiz (1860).....	71,500	Smyrna.....	150,000	Marocco (1862).....	100,000
Aix-la-Chapelle (1871).....	74,200	Zaragoza (1860).....	67,400	Baghdad (1869).....	150,000	Abeokuta, Guinea (1863).....	100,000
Altona (1871).....	74,100	Granada (1860).....	60,300	Aleppo.....	100,000	Fez, Marocco (1868).....	100,000
Elberfeld (1871).....	71,400	PORTUGAL.		Beirut (1866).....	100,000	Algiers (1866).....	52,600
Düsseldorf (1871).....	69,400	Lisbon (1863).....	224,100	Brusa.....	60,000	Khartoom, Nubia (1864).....	45,000
Crefeld (1871).....	57,100	Oporto (1863).....	86,300	Bassarrah.....	20,000	Tananarivo, Madagascar.....	80,000
Posen (1871).....	53,400	Braga (1863).....	19,500	Diarbekr.....	35,000	Port-Louis, Mauritius.....	35,000
Halle (1871).....	52,600	ITALY.		Jerusalem.....	20,000	Cape-town (1865).....	28,500
Cassel (1871).....	46,400	Naples (1872).....	448,700	ARABIA.			
Potsdam (1871).....	43,800	Milan (1872).....	262,000	Mecca.....	50,000	Oceania.	
Erfurt (1871).....	43,600	Rome (1872).....	244,500	PERSIA.			
Frankfort on-the-Oder (1871).....	43,200	Palermo (1872).....	219,400	Teheran.....	120,000	Melbourne, Australia (1871)...	193,700
SAXONY.		Turin (1872).....	207,800	Tabriz (1868).....	110,000	Manila, Philippine I. (1858)...	160,000
Dresden (1871).....	177,100	FREE CITIES.		Ispahan.....	60,000	Sydney, Australia (1871).....	134,800
Leipzig (1871).....	106,900	Hamburg (1871).....	240,300				
Chemnitz (1871).....	68,200						

POPULATION OF CAPITAL CITIES OF THE UNITED STATES. (Census of 1870, Official.)

Albany, N. Y.....	76,216	Columbia, S. C. ¹	9,298	Indianapolis, Ind.....	48,244	New Orleans, La.....	191,418	Santa Fe, New Mex.....	4,765
Annapolis, Md.....	5,744	Columbus, O.....	31,274	Jackson, Miss.....	4,234	Newport, R. I.....	12,521	Springfield, Ill.....	17,364
Augusta, Me.....	7,808	Concord, N. H.....	12,241	Jefferson City, Mo.....	4,420	Olympia, W. T. ³	1,203	St. Paul, Minn.....	20,030
Austin, Tex.....	4,428	Denver, Col.....	4,759	Lansing, Mich.....	5,241	Providence, R. I.....	68,904	Tallahassee, Fla.....	2,023
Atlanta, Ga.....	21,789	Des Moines, Iowa.....	12,035	Little Rock, Ark.....	12,380	Raleigh, N. C.....	7,790	Topeka, Kan.....	5,790
Boise City, Idaho.....	995	Dover, Del.....	1,906	Lincoln, Neb. ³	2,441	Richmond, Va.....	51,038	Trenton, N. J.....	22,874
Boston, Mass.....	250,526	Frankfort, Ky.....	5,396	Madison, Wis.....	9,176	Sacramento, Cal.....	16,283	Tucson, Arizona T. ³	3,224
Carson City, Nev. ³	3,042	Harrisburg, Pa.....	23,104	Montgomery, Ala.....	10,588	Salem, Oregon ²	1,139	Washington, C. T.....	109,199
Charleston, W. Va.....	3,162	Hartford, Conn.....	37,180	Montpelier, Vt. ³	3,023	Salt Lake City, Utah T.....	12,854	Yankton, Dakota T.....	737
Cheyenne, W. T. ³	1,450	Helena, Montana ³	3,197	Nashville, Tenn.....	25,865				

¹ Includes 236 of Insane Asylum.

² Precinct.

³ Township.

UNITED STATES EDUCATIONAL STATISTICS (CENSUS FOR 1870).

States and Territories.	Public Schools.			Not Public, Classical, Technical & Professional Schools.			Not Public, Other Schools.		
	Teachers.	Pupils.	Income.	Teachers.	Pupils.	Income.	Teachers.	Pupils.	Income.
Alabama.....	3,008	67,263	\$629,626	207	4,218	\$ 275,355	149	4,385	\$71,370
Arizona.....	-	-	-	-	-	-	7	132	6,000
Arkansas.....	1,966	72,045	552,461	79	2,453	55,987	252	7,028	73,514
California.....	1,883	75,527	1,027,733	258	4,351	1,040,836	363	5,629	277,739
Colorado.....	156	4,517	75,025	12	121	5,800	20	336	7,090
Connecticut.....	2,357	88,449	1,420,846	106	1,341	265,213	463	8,831	164,220
Dakota.....	48	1,223	8,684	-	-	-	4	32	600
Delaware.....	388	16,835	127,729	63	859	53,550	59	1,881	31,433
D. of Columbia.....	218	11,182	439,929	134	1,814	221,310	221	6,507	150,003
Florida.....	265	10,132	76,389	32	580	11,005	185	3,958	67,175
Georgia.....	327	11,150	175,844	408	9,658	385,067	1,702	45,342	692,388
Idaho.....	26	1,048	16,178	-	-	-	7	160	3,760
Illinois.....	20,097	677,623	7,810,295	571	11,755	896,372	3,388	78,397	1,263,372
Indiana.....	11,042	446,076	2,063,599	325	8,337	336,511	285	10,064	69,461
Iowa.....	8,866	205,923	3,245,352	310	6,453	182,191	143	5,278	42,550
Kansas.....	1,864	58,030	690,635	78	1,181	119,241	13	671	7,359
Kentucky.....	5,351	218,240	1,159,451	643	15,542	1,042,100	352	11,357	345,075
Louisiana.....	459	25,832	473,707	44	5,191	448,325	1,063	29,147	277,652
Maine.....	6,625	152,765	843,435	219	5,691	402,374	142	4,180	60,334
Maryland.....	2,150	83,226	1,146,057	413	6,563	626,490	724	17,595	255,698
Massachusetts.....	6,140	242,145	3,207,826	532	7,942	1,076,428	889	19,250	593,630
Michigan.....	8,977	254,828	2,164,489	316	5,480	297,155	266	6,319	88,371
Minnesota.....	2,7 8	108,498	895,204	51	793	76,376	77	3,065	40,159
Mississippi.....	-	-	-	78	1,461	95,839	1,650	41,990	683,500
Missouri.....	7,332	320,313	3,092,733	717	12,820	661,966	949	87,204	586,076
Montana.....	46	1,544	32,925	8	59	1,200	11	151	7,045
Nebraska.....	813	17,052	182,160	13	156	16,900	14	406	8,500
Nevada.....	56	1,858	81,273	-	-	-	28	517	29,221
New Hampshire.....	3,110	59,408	403,310	180	3,344	143,966	65	1,925	27,622
New Jersey.....	3,010	80,105	1,562,573	106	1,571	198,347	767	48,124	1,226,389
New Mexico.....	5	788	1,000	21	486	16,759	46	1,124	12,133
New York.....	23,729	719,181	8,912,024	2,049	43,728	3,722,193	3,140	99,113	3,302,563
N. Carolina.....	1,518	41,912	205,181	342	6,712	234,320	842	16,394	196,441
Ohio.....	21,713	737,993	8,528,145	1,018	21,093	1,088,899	823	32,009	627,600
Oregon.....	703	29,822	139,387	69	1,745	51,123	54	1,026	57,512
Pennsylvania.....	17,118	745,734	7,292,946	1,201	21,265	1,719,588	1,203	44,924	616,115
Rhode Island.....	775	27,250	355,582	42	1,198	78,550	134	4,148	180,880
S. Carolina.....	781	31,922	279,723	139	2,120	206,040	183	4,767	92,190
Tennessee.....	2,141	82,907	683,008	685	19,669	647,754	761	23,192	319,990
Texas.....	-	-	-	57	800	38,550	649	22,276	381,380
Utah.....	-	-	-	5	120	1,800	403	20,944	149,147
Vermont.....	4,622	52,067	516,702	204	4,196	112,157	334	6,650	78,433
Virginia.....	171	8,700	98,770	380	6,861	509,437	2,146	44,458	547,378
Washington.....	158	4,760	33,746	12	260	5,988	27	479	8,568
W. Virginia.....	2,647	101,493	593,811	73	1,672	78,406	78	1,784	19,844
Wisconsin.....	7,669	337,008	2,209,384	176	3,600	307,953	110	3,406	89,273
Wyoming.....	4	175	2,876	-	-	-	11	130	5,500
Total.....	183,198	6,228,060	\$64,039,673	12,767	255,190	\$17,675,907	25,077	726,688	\$13,696,146

UNITED STATES CENSUS FOR 1870.

With the Population of each decade for half a century.

States.	1870.	1860.	1850.	1840.	1830.	1820.
New York.....	4,387,464	3,880,785	3,097,394	2,428,921	1,918,608	1,572,111
Pennsylvania.....	3,522,050	2,906,215	2,311,786	1,724,032	1,348,233	1,047,507
Ohio.....	2,695,260	2,339,511	1,980,329	1,519,467	1,037,963	812,266
Illinois.....	2,539,891	1,711,951	851,470	476,183	157,445	55,161
Missouri.....	1,721,295	1,182,012	682,044	383,702	140,455	66,557
Indiana.....	1,680,637	1,359,428	988,416	685,806	343,031	147,178
Massachusetts.....	1,457,351	1,231,066	994,514	757,699	610,408	523,159
Kentucky.....	1,321,011	1,155,684	982,405	779,828	687,917	564,135
Tennessee.....	1,258,520	1,109,801	1,002,717	879,210	681,904	422,571
Virginia.....	1,225,163	1,596,318	1,421,661	1,239,797	1,211,405	1,061,129
Michigan.....	1,187,234	749,112	397,654	212,397	81,639	8,756
Iowa.....	1,194,320	674,913	392,214	43,112	-	-
Georgia.....	1,184,109	1,057,286	906,185	691,392	516,823	340,963
N. Carolina.....	1,071,361	775,881	305,291	30,945	-	-
Wisconsin.....	1,064,985	992,622	869,039	753,419	737,587	638,829
Alabama.....	996,992	964,201	771,623	590,756	393,527	157,901
N. Jersey.....	906,066	672,035	489,555	373,306	320,823	277,426
Mississippi.....	827,322	791,305	606,526	375,651	196,021	75,448
Texas.....	818,899	604,215	212,532	-	-	-
Maryland.....	780,894	687,049	583,034	470,019	447,040	407,359
Louisiana.....	726,915	708,002	617,762	342,411	215,570	132,923
S. Carolina.....	705,606	703,708	668,507	594,398	581,135	572,741
Maine.....	626,915	628,279	583,169	501,793	389,455	288,290
California.....	582,031	379,994	92,597	-	-	-
Connecticut.....	587,454	490,147	370,792	309,978	297,675	255,148
Arkansas.....	484,471	435,450	209,897	97,574	30,388	14,255
Minnesota.....	446,056	172,023	6,077	-	-	-
West Virginia.....	442,014	-	-	-	-	-
Kansas.....	373,299	107,206	-	-	-	-
Vermont.....	330,551	315,098	314,120	291,948	280,632	235,996
N. Hampshire.....	318,300	326,073	317,976	284,574	280,328	244,612
Rhode Island.....	214,354	174,620	147,545	108,630	97,199	83,015
Florida.....	188,248	149,424	87,445	54,477	-	-
Nebraska.....	129,322	28,841	-	-	-	-
Delaware.....	125,015	112,216	91,532	78,085	76,748	72,761
Oregon.....	101,883	52,465	13,294	-	-	-
Nevada.....	58,711	6,857	-	-	-	-
Territories.....	720,000	259,577	124,614	43,712	39,834	33,039
Total Union.....	38,925,598	31,443,321	23,191,876	17,069,453	12,866,020	9,693,392

TERRITORIES, 1870.

Columbia.....	131,700	Indian Territory.....	68,152	Montana.....	34,596
New Mexico.....	111,303	Colorado.....	47,164	Washington.....	37,432
Utah.....	99,581	Arizona.....	41,710	Idaho.....	2,583
Alaska (unorg'd).....	70,461	Dakota.....	40,501	Wyoming.....	11,513

STATISTICS OF AGRICULTURE IN THE UNITED STATES, 1870.

States and Territories.	Acres of Improved Land.	Wheat, Bushels of.	Indian Corn, Bushels of.	Rice, Pounds of.	Tobacco, Pounds of.	Cotton, Bales of.	Wool, Pounds of.	Butter, Pounds of.	Hay, Tons of.	Cane Sugar, Hhds.
1 Alabama.....	5,062,204	1,055,068	16,977,948	222,945	152,742	429,482	381,253	3,213,753	10,613	31
2 Arizona.....	14,585	27,052	32,041	-	100	-	679	800	10	-
3 Arkansas.....	1,859,821	747,736	13,382,145	78,021	504,886	247,968	214,784	2,753,931	6,829	92
4 California.....	6,218,133	16,676,702	1,221,222	-	63,890	-	11,391,743	7,969,774	551,773	-
5 Colorado.....	95,594	258,474	232,930	-	890	-	204,925	392,920	19,787	-
6 Connecticut.....	1,649,592	38,144	1,570,354	-	8,323,798	-	254,129	6,716,007	563,328	-
7 Dakota.....	42,545	170,662	133,140	-	-	-	8,810	209,795	13,317	-
8 Delaware.....	693,115	895,477	3,010,390	-	250	-	58,316	1,171,963	41,890	-
9 D. of Columbia.....	8,266	3,782	28,020	-	-	-	4,495	2,019	-	-
10 Florida.....	739,172	2,225,056	401,687	157,455	39,789	97,562	100,989	100,989	17	952
11 Georgia.....	6,831,856	2,127,017	17,646,459	22,277,380	288,596	473,934	846,947	4,459,572	10,518	644
12 Idaho.....	29,808	75,650	-	-	-	-	3,415	111,480	6,985	-
13 Illinois.....	19,329,952	30,128,405	129,921,395	-	5,249,274	465	5,739,249	26,983,405	2,747,339	-
14 Indiana.....	10,104,279	27,747,222	51,094,538	-	9,325,392	3	5,029,023	22,915,023	1,076,768	-
15 Iowa.....	9,391,467	29,435,692	68,985,095	-	71,732	-	2,967,043	27,512,179	1,777,339	-
16 Kansas.....	1,971,002	2,391,198	1,025,525	-	33,241	7	335,005	5,022,758	490,289	-
17 Kentucky.....	8,103,850	5,728,704	50,091,096	-	105,305,809	1,080	2,234,450	11,874,978	204,609	-
18 Louisiana.....	2,045,640	9,906	7,596,628	15,854,912</						



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