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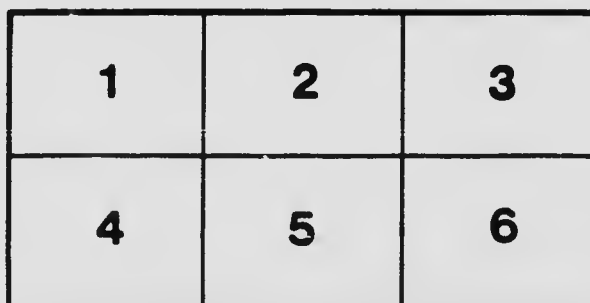
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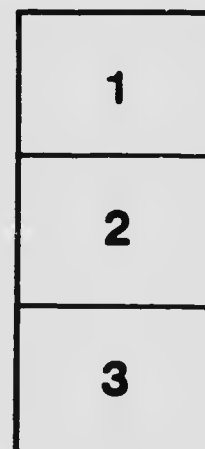
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NEW ELEMENTARY GEOGRAPHY

ADAPTED FOR USE IN

CANADIAN SCHOOLS

Prescribed by the Board of Education for use in the Schools of Quebec.



F. E. GRAFTON & SONS
MONTREAL



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PREFACE.



Champlain's Monument,
Quebec.

THIS Geography is designed for a pupil's first textbook in the subject, and recognizes the fact that geography for schools should be a practical study of man's physical surroundings in their relations to him. Hence the central idea of the treatment is *man*,—his history, customs, industries, and commercial relations as determined or modified by the forces of nature.

It recognizes, further, the fact that *one of the most important functions of elementary geography is to teach the names, locations, and characteristics of the countries* into which man has divided the earth. These are the units of the world's geographical intercourse. A knowledge of them constitutes the proper foundation for the study of geography in more advanced grades; while it fits the large proportion of pupils who leave school at an early age to understand the countless geographical references which they will encounter in daily life.

It points out the great divisions of the inhabitants of the earth into separate groups according to race and speech, in each of which there is an essential similarity of manners, customs, and general views of life. The provinces and territories of Canada are studied in groups that are simple and practical, being in accordance with the historical development of the Dominion and in conformity with its physical geography.

This book develops the subject upon a definite and natural plan, and in harmony with approved principles of teaching. *Each lesson, while complete in itself, prepares the way to the following lesson.* The pupil is led from that which is perfectly familiar and in easy range of his observation, to form correct ideas of things that are remote and strange; and not until such notions have been formed are these things named or defined. *Specialization are demanded only after the materials for their formation have been studied.* The pupil's own country is presented early in the treatment, and then all other countries are studied in their relations to it.

The subject is treated simply and sensibly. The book keeps well within the range of the pupil's comprehension, but never descends to baby talk or other artificial means to hold his attention.

The pupil is required to work rather than the teacher, and at the same time the book excites the interest of both pupil and teacher and stimulates them



University College, Toronto.



New York and Brooklyn Bridge.

to independent thought. *The text abounds in questions that inspire thought, and, at the end of the treatment of each grand division, carefully prepared exercises lead to the comparison of the parts of the subject already studied, and form a thorough review of the pupil's work.*

The text exemplifies the fundamental laws of composition, and may be used in language work. In many lessons the chief topic is introduced by easy questions and exercises that prepare the pupil to understand the text of that section. At the end of the treatment *carefully prepared test questions help to fix the leading facts of the lesson* and also to enlarge the pupil's knowledge.

It recognizes *the value of map-drawing* in elementary geography, and introduces it in such manner that it shall be properly used *as means to an end*, and not as an end in itself.

The relief maps contain the names of the features represented, and require no accessories to adapt them for practical use.

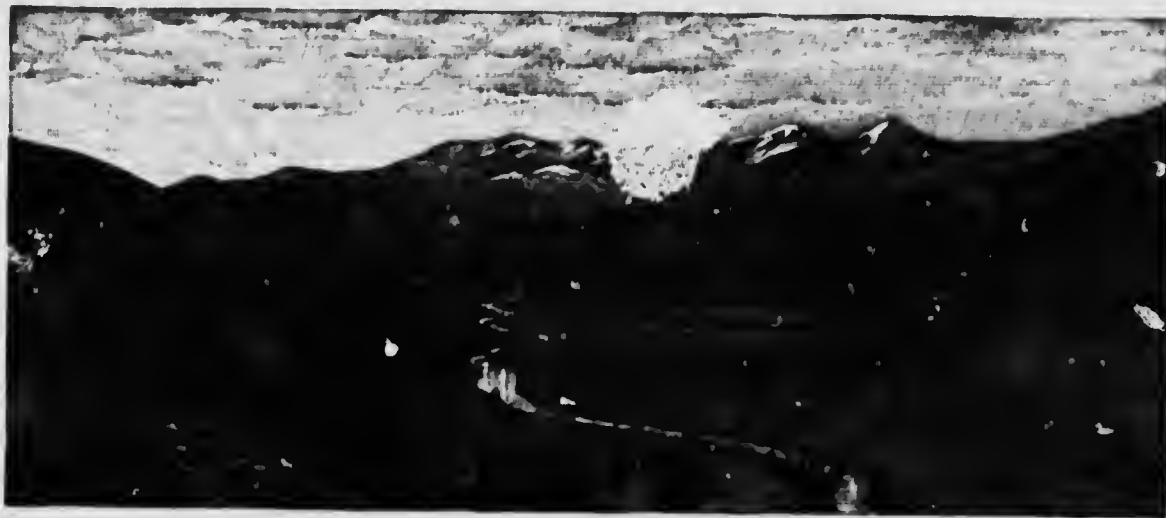
The maps of corresponding divisions of the land are drawn on the same scale, so that relative areas are accurately depicted and may be directly compared. Thus a single scale serves for all the maps of the grand divisions.

The pictures, most of which have been reproduced from photographs, are of simple subjects within the comprehension of young pupils, and they have been arranged upon the pages in such manner and in such numbers that they serve a really useful purpose in illustrating the text. Those used to illustrate the chapter on Canada have been selected with special care and are of recent date, setting before the eye the resources and the development of our beloved country.

Brock's Monument,
Queenston.

Arts Building, McGill University.

ELEMENTARY GEOGRAPHY.



1. Direction — East and West.

Here is a picture of a school 1. Can you



tell what time it is by the clock? The boy coming in at the door has been playing in the sunshine on his way to school, and is a little late. The sunshine comes into the schoolroom, too.

Here is another picture of the same schoolroom. What time is it by the clock in this

picture? It is late in the afternoon, school has just closed, and the pupils are going home. Is the sunshine still coming into the schoolroom? Does it enter at the same windows through which it came in the morning? Through which windows in the picture does it come in the afternoon? Through which windows does it shine in the morning? On which side of the schoolroom is the sun in the morning? On which side is the sun in the afternoon? So the





The land stretches out from us as far as we can see.

sun is on one side of the room in the morning, but on the opposite side in the afternoon.

Does the sun shine into your schoolroom in the morning? In the afternoon? Can you point to a window through which the sun shines in the morning, but not in the afternoon? To one through which it shines only in the afternoon? Can you point in the direction toward sunset? The side of the room toward the sunset is called the *west* side. Now can you point toward sunrise? The side of the room toward sunrise is the *east* side.

Notice which side of your schoolhouse the sun shines on late this afternoon, and which side it shines on early to-morrow morning, for in the next lesson you will have to point out the east side and the west side of your schoolroom.

The sun shines on one side of the house in the morning, but on the other or opposite side in the afternoon. The direction toward sunrise is called east, and the side of the house or room toward the early morning sun is the east side. The direction toward sunset is called west, and the side of the room or house toward the late afternoon sun is the west side.

2. The Land Ends toward the East.

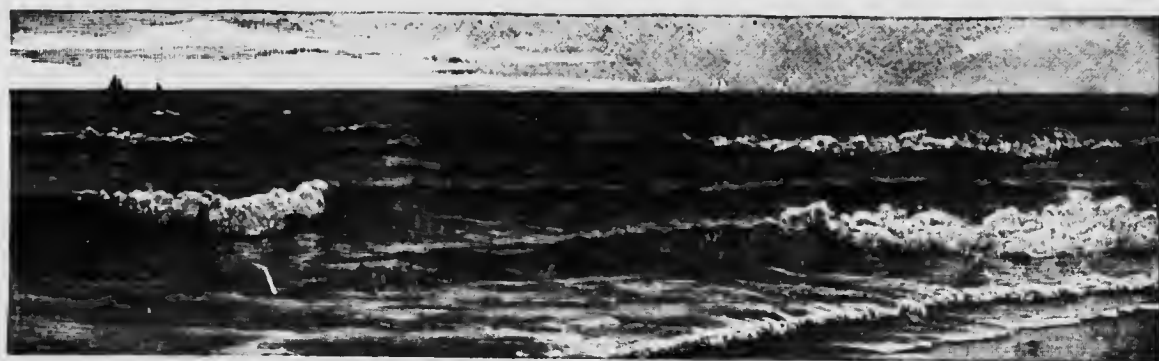
Point to the east side of the schoolroom. How do you know that it is the east side? Point to the west side of the room. How do you know it is the west side?

What did you walk upon as you came to school this morning? On what is the road

or the sidewalk? We walk on the ground, we build our houses on the ground, and the trees and the grass grow out of the ground. We sometimes call the ground *land*. In your walks about home you always find ground to walk on, and although you may come to a pond or a stream of water on which you cannot walk, you can generally see the land on the other side; so you are sure that you have not reached the end of the land.

If you were to start at your schoolhouse and travel on and on in any direction, do you suppose you would ever reach the end of the land? Let us see. Which way shall we go? Stand up and face the east side of the room. We will travel toward the east. We may have to start on foot, and perhaps we must go a little way across the fields, but before long we shall probably reach a road or a railway on which we may ride toward the east. We pass through town after town and through the open country, where we can see a long way over the fields to the *horizon*, or the place where the sky seems to meet the land in the distance. The land stretches out from us on all sides as far as we can see.

At last we catch glimpses of dark blue water far ahead. It seems to grow broader and wider as we go forward, and finally we reach its edge. It is a vast expanse of water, greater perhaps than any you have ever seen. The



The water extends away until it seems to meet the sky.

shore, or margin of the land, stretches off to the right and to the left as far as we can see; while the water extends away toward the east until it seems to meet the sky, on the distant horizon.

The surface of the water is usually heaving up and down in waves, which, one after another, seem to move swiftly toward the land.

If the shore is a flat and sandy beach, these waves roll over and fall on it with a roar, in long lines of snow-white foam. If the shore is high and rocky, the waves dash wildly against the rocks with a louder roar, sending white spray high into the air.

We have actually reached the end of the land toward the east! The water before us is the sea or ocean. It is different from most streams and ponds, not only because we cannot see across it, but also because its water is so salt that it cannot be used for drinking.

The land which we walk on comes to an end at some distance to the east of our home, where it meets the sea or ocean.

The sea or ocean is a great body of water so wide that we cannot see across it.

The water of the sea is so salt that it cannot be used for drinking.

3. The Land Ends toward the West.

Which way did we travel in the last lesson? Stand with your back toward the east. In what direction are you facing?

We will now travel from home toward the west, to see if the land ends in that direction. We can go most of the way

by railroad. At first we may travel over land that seems smooth and level. We pass through many towns, and sometimes we see houses in the country, but not so many as we found when journeying toward the east.

Presently the land before us becomes rough and hilly. The hills are so very high and steep that they are called *mountains*. Their bare and rocky tops seem to touch the clouds, and are often covered with snow even in summer. We cross these mountains only to



A flat and sandy beach.



A high and rocky shore.

find others, and for the rest of our journey we are seldom out of sight of mountains. By and by we reach the top of a mountain from which we can see blue water stretching out in front of us, seeming to meet the sky in the far-distant west.

We go down the mountain to the shore, which stretches out to the right and to the left as far as we can see. The great waves come rolling in and dash into white foam. If we taste the water we find that it is salt. We have reached the end of the land toward the west! The sea or ocean is again in front of us, but now the sea is west of the land, while before the sea was east of the land!

The land we live on is very wide, from east to west. It takes a railway train nearly six days and nights to cross from the ocean on the east to the ocean on the west.

At about noon to-day notice in which direction your shadow falls, and be able to tell about it to-morrow.



The hills are so high that they are called mountains.

TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. **ENDING OF THE LAND.** In what directions does the land end? What is the sea? What is the shore?
- II. **SURFACE OF THE LAND.** What two kinds of land did we travel over? What is a mountain?
- III. **WIDTH OF THE LAND.** How do you know the land is wide?

4. The Land Ends to the North and to the South.

Stand with your right hand toward the east and with your left hand toward the west. The direction in front of you is called *north*; and the direction behind you is called *south*. In what direction does your shadow fall at noon? At noon, how can you find the north? How can you find the north in the early morning or in the late afternoon?

If we journey from home toward the north, we may travel by railway at first; but soon

the railway ends. We then travel on foot or in a canoe or boat, for there are many streams and great ponds or lakes over which we may paddle. We shall be many weeks and perhaps months on the way. We must camp out at night, as there are no towns or farms, and but very few people; for our way lies through the wilderness of a great, lonely land.

At last we reach the end of the land, and the salt water of the sea is before us. Here, however, we are likely to find the sea full of great floating fields of ice, for in the far north the winters are so long and so cold that the ice becomes very thick,—so thick that it is not all melted during the short summer.

We have found that the land ends toward the east, toward the west, and toward the north. Point to the east; to the west; to the north; to the south. Let us see if the land ends also toward the south.

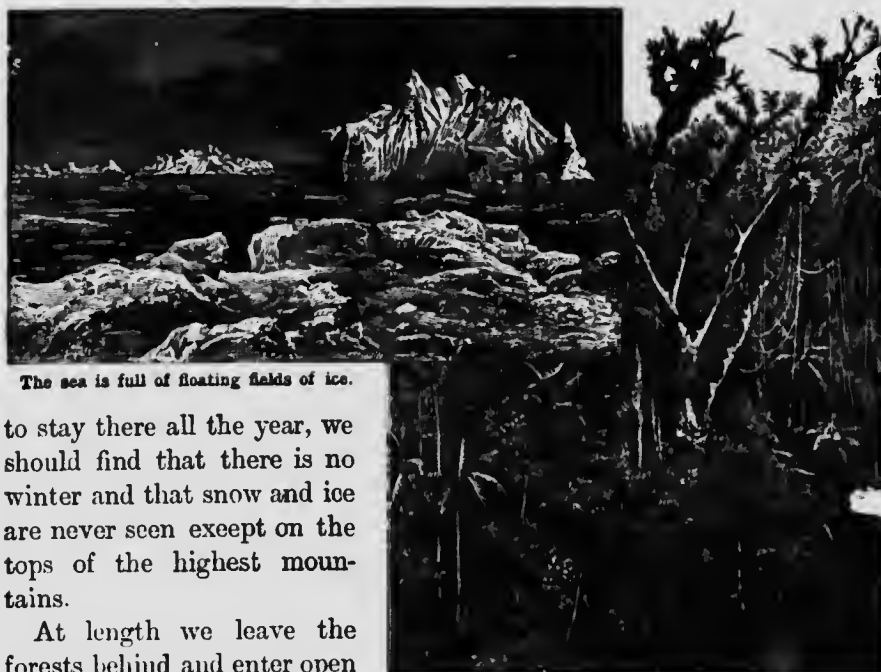
When we start from home we may travel

at first by rail, but after a while the railway ends, and we must go on foot or on horseback.

We pass through but few towns. The people look and dress and live much as we do at home, but we cannot understand them when they talk, for they speak a language different from ours.

For weeks we travel through dark, gloomy forests, where the trees stand so close together, and the tangled vines are so thick, that we cannot pass through until we have cut a path. In the forests we may see troops of long-tailed monkeys playing in the trees, and flocks of beautiful green, red, and yellow parrots flying about.

The weather is very warm, and if we were



The sea is full of floating fields of ice.

to stay there all the year, we should find that there is no winter and that snow and ice are never seen except on the tops of the highest mountains.

At length we leave the forests behind and enter open country again. As we advance we notice that our shadows at noon fall toward the *south*, instead of toward the north as at home. We also notice that there is a winter season and a summer season, but that it is winter during the months when it is summer at home. Think of it: if we lived there, we should wear overcoats on the First of July and straw hats at Christmas!

We go forward and gradually reach a colder region, where the winters are long and the summers short, until at last we are stopped by a vast expanse of salt water. The sea is again before us! We have reached the end of the land toward the south!

We cannot pass through until we have cut a path.

5. The Continent of America.

In what directions have we traveled? What has stopped each journey? Where, then, is the sea?

If we travel from home in *any* direction, we shall at last come to the sea, for the sea lies on all sides of the land.

Were we to follow the shore of the sea entirely around the land until we reached our starting place again, we should find that the shape of the land is something like the outline on the next page. The pic-

ture which you draw of a house or a tree is smaller than the thing itself. In the same way, this map of the land is much smaller than the land itself. The real land is so very large that it would take several years to walk all around its edge.

On this map the land is shaded, but the sea is white, so you can easily tell the one from the other. The directions are marked near the edges of the map. The east side of the land is the side toward the east side of the map, the west side of the land is the side toward the west side of the map, and so on. You see that most of the land is in one great mass, but that along its margin there are several smaller masses of land, each completely surrounded by water. The continuous mass of land is called a *continent*. It is the continent of America. The smaller masses of land surrounded by water are called *islands*. The continent and islands together are sometimes called simply America.

TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. DIRECTIONS. How can you find north? South? East? West? In what directions does the land end? Where have you found the sea?
- II. HEAT AND COLD. What kind of weather is there far north of your home? Where is a land that has no winter? When is there winter in the far south?

You will notice that the sea or ocean which surrounds the continent is one continuous body of water; but its different parts are called by different names. What is the name of the part of the sea east of America? What is the name of the part west of America? Of the part north of America?

Is the continent as wide in the middle as it is farther north or farther south? In the middle it looks like a mere strip or neck of land. At the narrowest part of this neck a man might walk across the continent in a single day from the Atlantic to the Pacific Ocean. A narrow neck of land connecting two larger masses of land is called an *isthmus*, which means "neck." Find the isthmus on the map. What is its name? The land is so narrow here that we may say the isthmus connects two *grand divisions* of the continent. One of these is called North America, the other South America. Why are they so called? We live in North America. Find North America on the map.



TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. **THE MAP.** In what respect is the outline map like the land? Name one way in which it is different. Which is the east side of the map? The west side? The north, and the south sides?
- II. **THE CONTINENT.** Name it. Name its grand divisions. By what oceans is it surrounded? How is it different from an island? What is an isthmus?

6. Across the Sea to the East.

What is a continent? In which continent do you live? In which grand division do we live? Which ocean east of North America?

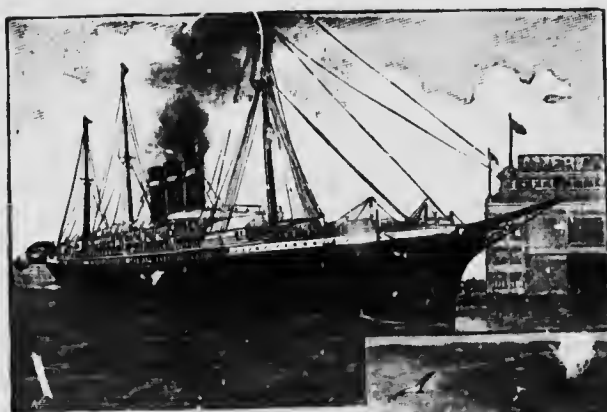
To-day we will go to the east shore of North America and get on a great steamship in which we will sail out on the Atlantic Ocean. The steamship is built of steel, and there is room in it for more than a thousand people. It is driven through the water, by means of powerful engines, as fast as a freight train moves. We will sail toward the east.

As we move away, the land grows blue and misty in the distance, and finally sinks out of sight behind us. There is now nothing to be seen but the ship, the water all around us, and the sky overhead. We steam along, day and night; the sun seems to rise out of the water in front of us each morning, and to go down into the water behind us every evening.

Even when the weather is bright and pleasant, the waves of the sea are generally large enough to make the ship rise and fall and rock from side to side so that it is hard to keep our balance while walking about the ship. But when the storm winds blow, the waves rise high and toss

the great ship about as if it were a cork. We must not go out on deck then, for the high waves sometimes dash over the ship, and we might be swept away and drowned. But after the winds die out and the waves subside, we may again go on deck.

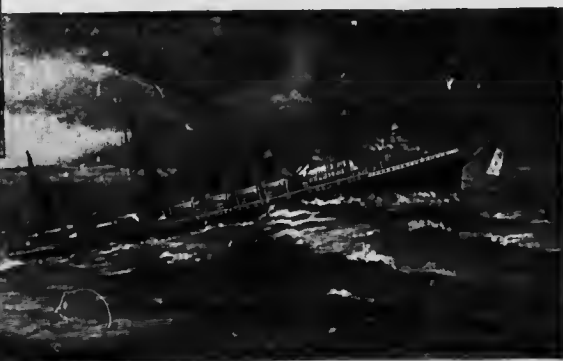
All this time the engines have been driving our ship eastward. At last, about a week after starting, we can see land far ahead. As we draw near the land, it seems to rise out of the sea, and its shore extends far to the right hand and to the left. Finally our ship stops, and we go ashore. We have crossed the Atlantic



We will get on a great steamship.

Ocean and have reached another continent! This land, which we reach by sailing to the east, is called the Eastern Continent.

Near the southeast corner of the map you may see a very large island. What is its name? The word *Australia* means "southern country." What is the difference between an island and a continent? Aus-



The high waves sometimes dash over the ship.

TOPICS FOR ORAL OR WRITTEN WORK.

(Tell about each Topic in Sentences.)

- I. THE STEAMSHIP. Its material. Its size. Its use. Its swiftness.
- II. THE JOURNEY. Starting place. Direction of journey. Time of journey. Stopping place.
- III. MID-OCEAN. By what the ship is surrounded. Where the sun seems to rise and to set.

7. The Eastern Continent.

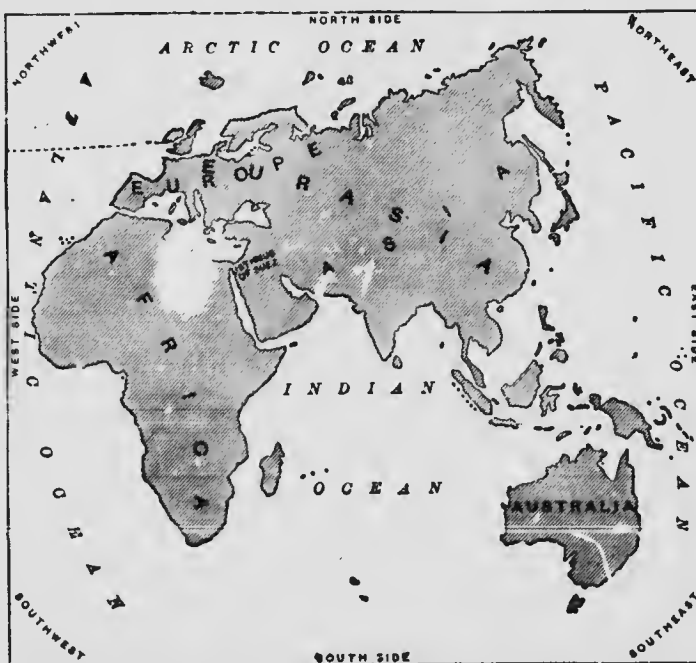
How many continents have we learned about? What ocean between them? How long does it take to cross from one continent to the other? On which continent do you live? What is the other continent called?

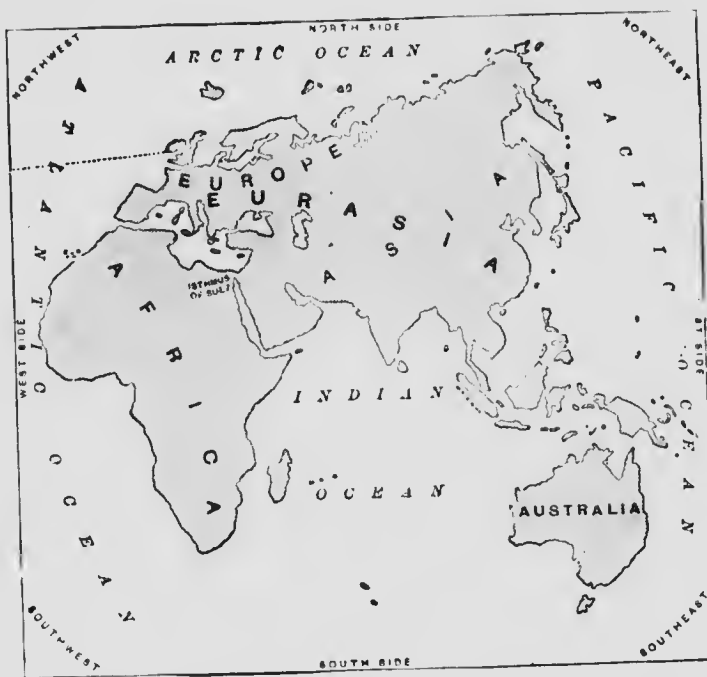
The shape of the Eastern Continent is something like this outline.

Are most of the islands near this continent directly east of it? Are they directly south? The direction halfway between south and east is called *southeast*; that between south and west is *southwest*. What is the direction between north and west called? Between north and east? In what direction from the Eastern Continent are most of the islands?

tralia is generally called a continent. Why?

Compare the map of America with the map of the Eastern Continent. Which of these continents is the larger? It is nearly twice as large as America. Name the three continents in the order of their size.





What is the name of the ocean north of the Eastern Continent? Which ocean is east of it? Which ocean is south? Which ocean is west?

In what direction did we cross the Atlantic to reach the Eastern Continent? The dotted line on the map shows where we approached the continent and landed. In what direction is America from the Eastern Continent? If we call this the Eastern Continent, what may we call America?

Like America, the Eastern Continent is nearly separated into two parts by the ocean. Only a narrow neck of land joins the two parts. What is such a neck of land called? What is the name of the neck which joins the two grand divisions of the Eastern Continent?

What is the name of the grand division southwest of the Isthmus of Suez? The other grand division may be called Eurasia, but the western part of it is often spoken of as the grand division of Europe, while the eastern and larger part of it is spoken of as the grand division of Asia.

TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. CONTINENTS. What is a continent? How many have you studied? Name them.
- II. GRAND DIVISIONS. Name the grand divisions of each continent.
- III. OCEANS. What is an ocean? Name those that you have studied.

8. Our Interest in the Eastern Continent.

Although the Eastern Continent is separated from our land by the wide ocean, which some of us may never cross, still there are at least two good reasons why we should learn about it.

In the first place, many of the things in common use come to us from that far-away land. Much of our tea and rice, and nearly all of

our pepper and other spices come from Asia. The linen of which your handkerchief is made, and much of the woolen, and most of the silk, of which your clothes are made, come from Europe. Most of the white metal, tin, which forms the outside coating of our tinware, comes from Australia and the islands southeast of Asia. These and hundreds of other useful things are brought to us across the ocean.

But the Eastern Continent is even more interesting for another reason. It is our old home! Perhaps we ourselves never lived there, but our ancestors, that is, our parents, or our grandparents, or our great-grandparents, once lived in Europe; for many years ago all the white people of the world lived in Europe, southwestern Asia, and northern Africa, and most of the white people in the world still live there. So we call the central and northwestern parts of the Eastern Continent the home of the white people or "*Caucasian*" race.

The part of Europe that is of greatest interest to Canadians is the group of islands where we landed after our journey across the ocean,

as shown by the dotted line on the map. These are the British Isles, the centre of the great Empire to which Canada belongs. Here is London, the capital of the British Empire, and the largest and richest city in the world. In the city you may see the Houses of Parliament where the laws are made. At a little distance outside of the city is Windsor Castle, the home of the King. Many other lands of the Eastern Continent are parts of the British Empire. Two of the most important are India, a large country north of the Indian Ocean, and Australia, a large island east of it. Find these on the map.

The greater number of Canadians are descendants of people who left their homes in the British Isles. Many others are of French origin, that is to say their forefathers came from France. This is a country on the mainland of Europe, just south of the British Isles.

One of the first white men to find the way to America was Christopher Columbus. He sailed from Spain, the country south of France. Much of the southern part of the American continent is occupied by descendants of Spanish people.

The English and the French also took possession of large tracts in North America. The English settlements extended along the Atlantic coast, while the French were the discoverers and first white settlers of Canada. Read about this in your Canadian History and how the *Indians* were civilized.

TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. THE EASTERN CONTINENT. Why is it useful to us? Why is it interesting?
- II. WHITE MEN IN AMERICA. Where is the home of the white race? Why are you interested in this race? Who was Christopher Columbus? Why are England, France, and Spain especially interesting to us?

9. Homes of the Races of Mankind.

Where is the home of the Caucasian race? Have you ever seen any negroes? Chinamen? Indians?

How does the color of negroes differ from that of white men? How does their hair differ? Negroes usually have broader and flatter noses, and thicker lips, than white men.

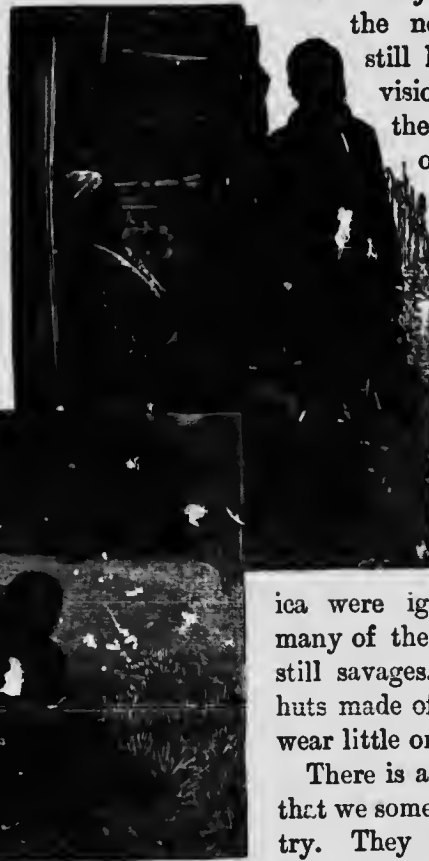
The ancestors of every negro in this country came from Africa, for Africa is the home of the

black or negro race, and most the negroes in the world still live in that grand division. Find Africa on the map. In what part of the Eastern Continent is it?

Negroes have been living in this country so long that those we see here have learned to speak and dress and live much as the white men do; but the first negroes who were brought to Amer-

ica were ignorant savages, and many of the negroes in Africa are still savages. They live in rude huts made of mud and grass, and wear little or no clothing.

There is another kind of people that we sometimes see in this country. They have yellowish skin,



and slanting, almond-shaped eyes, and each of them wears his hair in a long braid. They dress in a manner that seems odd to us, wearing loose jackets and queer shoes, and many of those living here are laundrymen. What are these people called?

The Chinese belong to the yellow or Mongolian race.

The home of this race is in eastern and northern

clothing, and passed their time in hunting or fighting with bows and arrows. The white men called them Indians.

There are now many more white people than Indians in America, but as the Indians used to be the only inhabitants, and as all the red men in the world still live on this continent, America is said to be the home of the red or Indian race.

TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. RACES OF MANKIND. How many races are there? Describe the appearance of one race. Where is the home of each?
- II. RACES IN AMERICA. Name and describe the first race that lived here. The second. What other kinds of men have you seen?

10. Our Journey Eastward Completed.

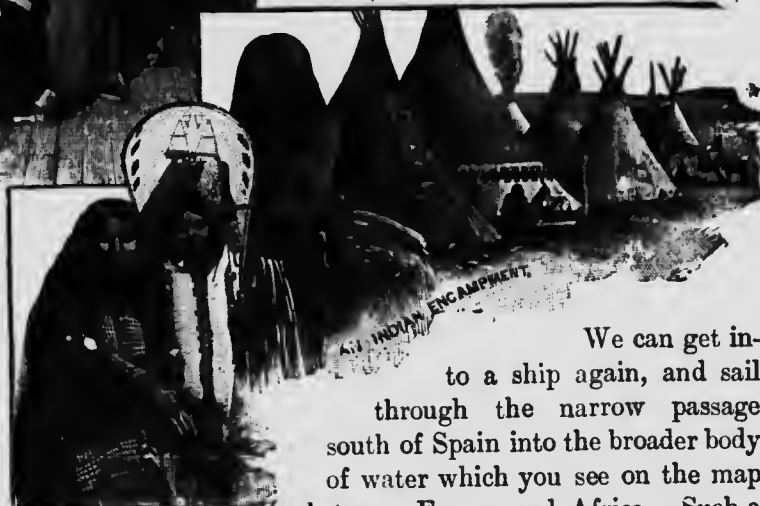
Look at the map on p. 12. In what direction from home did we travel to reach our landing place in Europe? Let us continue our journey to the east across the Eastern Continent.



Asia. Though but few of them live in our country, there are about as many yellow people in the world as there are white people.

The people that live in the extreme southeast of Asia and in the neighboring islands are somewhat different from the yellow race; their eyes do not slant, and their skin is of a brownish color. They are called Malays. The great islands southeast of Asia are the home of the brown or Malay race.

When the white men first came to this country, the only people they found here had long, coarse black hair, and reddish-yellow skin. Most of them lived in huts or wigwags made of skins or bark. They wore little



We can get in to a ship again, and sail through the narrow passage south of Spain into the broader body of water which you see on the map between Europe and Africa. Such a narrow passage of water is called a *strait* or *channel*.

The broad body of water is called the Mediterranean Sea, which means a sea "in the midst of the land." Why is it so called?

How long did it take our steamer to cross

the Atlantic? The Mediterranean Sea is about two-thirds as long as the Atlantic Ocean is wide. About how long, then, will it take our steamship to reach the Isthmus of Suez? We will leave the ship there.

Near the Isthmus of Suez are many of the places told about in the Bible. At the African end of the isthmus is the "Land of Egypt." Near by in Asia is the place where Joseph was sold by his brethren, and not far away are the places where Jesus lived.

But we must push onward to the east, for it will take us many months to cross Asia to the shore of the Pacific Ocean. We must travel on camels or on horses, and we shall not see many wagons or carts, for there are few good roads. The people dress in strange fashions; they have curious manners, and speak in languages that we do not understand. Much

for this is the home of the yellow race. They are all busy, but nearly all of them are very poor. We pass through many large towns and cities, where most of the houses are only one or two stories high, and where there are few horses, carts, or wagons in the narrow and crowded streets.

At length we reach the end of the land, and



In the "Land of Egypt."

of our way lies over sandy or rocky deserts. Then we climb over mountains so high that their tops are above the clouds.

After a time we descend into lowlands where there are very many people. We cannot understand what they say, but we see that each man wears a braid and has yellow skin and slanting eyes like our laundryman at home. What people are they? But there are so many of them! The land is fairly alive with yellow people;



In the narrow and crowded streets.

the ocean once again extends far out to the eastward before us. What is the name of this ocean? Here we find steamships with white men on them, and we sail away from the shore.

We gradually lose sight of the land, and day after day we sail onward, always to the east, with nothing in sight but sky and water. Probably we begin to doubt if there is any land ahead of us, for we have been sailing more than twice as long as it took to cross the Atlantic.

At last, however, land appears before us, stretching far off to the right hand and to the left. Our voyage is ended; we have crossed the Pacific Ocean and have reached the western shore of another continent.

The shape of the continent is like this:

Can you tell its name?

From what land did we start when we crossed the Atlantic Ocean? In what direction did we go? What land did we reach? When we continued our journey, did we change the general direction in which we traveled? What land did we reach at last? From what shore of America did we start? What shore did we reach? Can you explain this?

11. Our Journey Teaches the Shape of the Earth.

Stick a pin into a large, round apple, as in the picture below. With a pencil scratch a line around the apple, moving the pencil always in the same direction. What point on the apple do you finally reach? In your journey constantly to the east from your home, what point do you finally reach?

The continent of America, on which we live, the Eastern Continent, and the oceans on which we have traveled, form parts of the surface of a great ball, which we call the *earth*. In our long journey eastward, over sea and over land, we traveled around this ball until we came again to the land from which we started.

Pretend that your apple is the round earth and that the pin in it is the place where you live. Scratch several journeys round the apple from your home, each in a different direction. What place do you



always reach? If you should journey on the earth in any direction from your home, and continue without turning to the right or to the left, what place would you finally reach? Why?

The earth seems to us flat instead of round, because it is so large, and we are so close to it, that we can see but a small part of it.

From a great height in the sky we might see that the earth is round, and it would look something like one of the pictures below.

Each picture shows one half of the earth, while the picture beside it shows the other half. A perfectly round body is called a *sphere*. *Hemisphere* means "half a sphere," and as the earth is nearly a sphere, a map or picture of half the earth is called a map or picture of a hemisphere.

Look at the two pictures below. You see that the continent of America stretches across one side of the round earth. This half of the earth is called the Western Hemisphere. The Eastern and the Australian continents are on the opposite side of the earth. That half of the earth is called the Eastern Hemisphere.

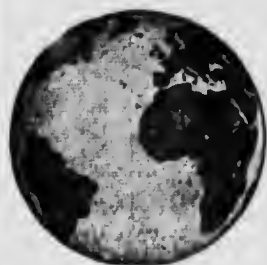


Western Hemisphere.

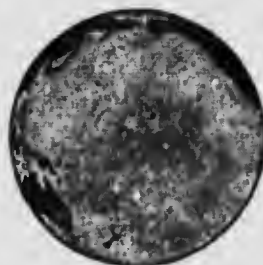


Eastern Hemisphere.

In the first two pictures on the next page you see the Atlantic Ocean stretching across one side of the earth, and the Pacific Ocean covering almost all of the opposite side.



Atlantic Ocean.



Pacific Ocean.

The two pictures below show the Northern Hemisphere from above the most northern point of the earth, and the Southern Hemisphere from above the most southern point. You see that about half of the Northern Hemisphere is land, but that almost all of the Southern Hemisphere is covered with water. The ocean about the most southern part of the earth is called the Antarctic Ocean.



Northern Hemisphere.



Southern Hemisphere.

Is most of the earth's surface land or water? About three-fourths of the earth's surface is water; only about one-fourth is land.

TOPICS FOR ORAL OR WRITTEN WORK.

(Answer in Sentences.)

- I. THE EARTH. What is its shape? Why do you think so? How much of its surface is land, and how much water?
- II. THE LAND. Name the continents. In which hemisphere is each?
- III. THE WATER. Name the five oceans. Tell where each ocean is.

12. The Turning of the Earth.

The great ball on which we live is always turning slowly around toward the east. This

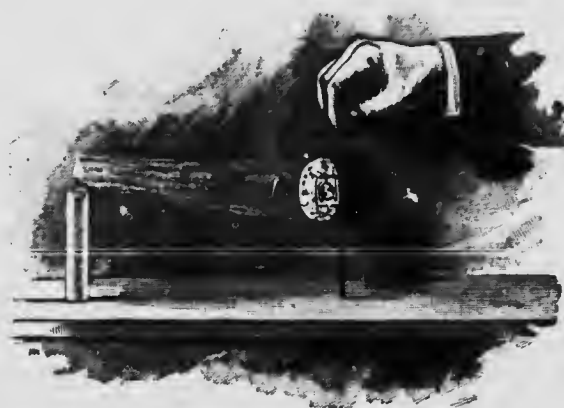
motion of the earth makes the sun *appear* to rise in the morning, to move westward across the sky during the day, and to set in the evening. It is really the earth that moves.

The turning of the earth once around in front of the sun makes day and night. We divide this time into twenty-four hours.

Get an apple and pretend it is the round earth. Pin a postage stamp near the middle of one side for America, and a larger piece of paper on the other side for Asia. Stick a straight wire or hat pin through the center of the apple from the stem, and hold it in front of the candle on the teacher's desk, as in the picture below. We will pretend that the candle is the sun. Now, twirl the pin so as to make the apple *turn slowly*. See how America and Asia are brought by this turning, first into the light, or day, and then into the shadow, or night, and then into the light again.

When it is day in America it is night in Asia. In about twelve hours, however, the earth will turn so far that Asia will be toward the sun, and America away from it. Will it then be day or night in Asia? In America?

Imagine a line passing through the center of the earth, from one side to the other, around which all parts of the earth move as it turns. We call this imaginary line the earth's *axis*. One end of the axis is at the most northern point of the earth, and is called the *north*



pole. The other end of the axis is at the most southern point, and is called the *south pole*.



Imagine a line passing around the earth just halfway between the poles. This line divides the earth into a northern and a southern hemisphere, and is called the *equator*. The equator extends exactly east and west.

TOPICS FOR ORAL OR WRITTEN WORK.

(Tell about each Topic in Sentences.)

- I. **THE MOTION OF THE EARTH.** The direction in which it moves. The time which it takes to turn once. The divisions we make of that time.
- II. **THE RESULT OF THE EARTH'S MOTION.** Apparent. Real.
- III. **LINES AND POINTS.** The axis. The north pole. The south pole. The equator.

13. The Zones.

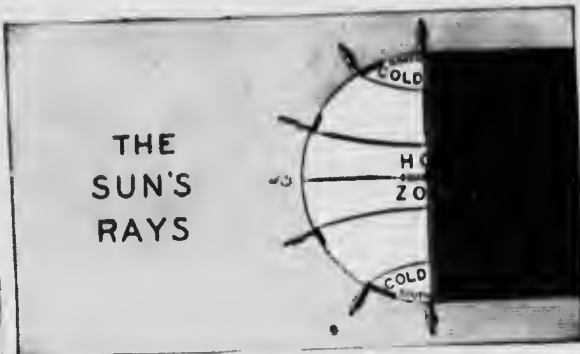
Why is it day with us during part of the time only? What, then, do we get from the sun? Is it generally warmer in the daytime or at night? Why? What, then, besides light do we get from the sun? Without the heat from the sun we should all freeze to death.

What part of the day is the hottest? Is the sun low down or high up in the sky during the middle of the day? Does the sun give us more heat when it is high up in the sky and nearly overhead, or when it is low down in the sky, as in the early morning and late afternoon?



Life in the frigid zone.

Look at the picture at the top of the next column; to which man does the sun seem to shine from directly overhead? On what part of the earth is that man standing? There is a broad zone or belt, midway between the poles, in some part of which the sun is always overhead at noon. In that zone the days and nights are each about twelve hours long; the weather is warm all the year; and where there



The sun's rays in the different zones.

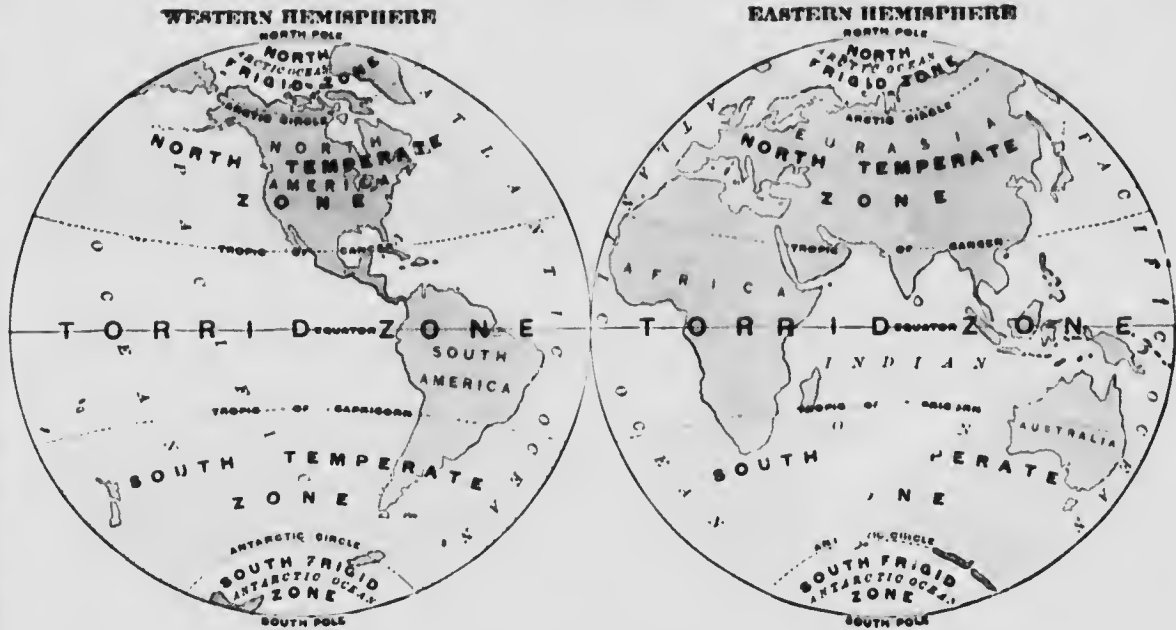
is enough rain the trees and grass are always green. This belt is called the *hot* or *torrid zone*. Its width is about one fourth the distance on the earth's surface between the north pole and the south pole.

To which two men in the picture does the sun seem low down in the sky? In the parts of the earth near the poles the sun is never high in the sky, and in winter, in much of those regions, it does not rise at all for several weeks. In midsummer it does not set, but seems to

circle around the sky just above the horizon. The winter is so long and cold, and the summer is so short, that no trees grow tall, and only a few kinds of plants live there. Those parts are called the *cold* or *frigid* zones.



Life in the torrid zone.



zones. There is a north frigid zone around the north pole, and a south frigid zone around the south pole.

Between the hot and the cold zones the sun is never quite overhead, and the weather is neither so hot in summer as in the torrid zone, nor so cold in winter as in the frigid zone. There are two of these belts. One is called the *north temperate zone*; the other, the *south temperate zone*. Each of them is nearly as wide as the torrid zone.

In which zone is the sun always nearly overhead at noon? In which zones do shadows fall toward the north at noon? Can you tell why? In which zones do shadows fall toward the south at noon? Can you tell why?

In the temperate zones, spring, summer, autumn, and winter follow one after the other; but when it is winter in the north temperate zone, it is summer in the south temperate zone. In which season do most of the trees and plants begin to grow and put forth leaves and flowers? In which are they covered with leaves and fruit? When do they shed their leaves?

When do they seem dead and bare? We live in the north temperate zone. When the trees are covered with fruit near our home, how do the trees look in the south temperate zone?

In summer the days are longer than the nights in the temperate and frigid zones, but in winter they are shorter. The nearer to the poles we get, the longer we find the days of summer and the nights of winter; until finally, at the poles themselves, we should find that daylight lasts all summer, and the darkness of night lasts nearly all winter.

What zone lies around the north pole? Around the south pole? Through which zone does the equator pass? Where is the north temperate zone? The south temperate zone? Name the five zones in order, beginning at the north.

What is the name of the line at the edge of the north frigid zone? Of the south frigid zone? At the north edge of the torrid zone? At the southern edge? Name these lines in order, beginning at the north.



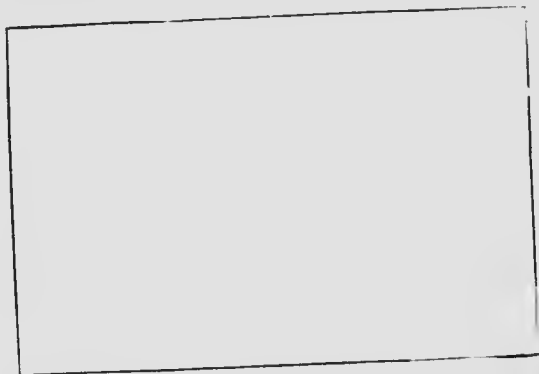
TOPICS FOR ORAL OR WRITTEN WORK.

(Tell about each Topic in Sentences.)

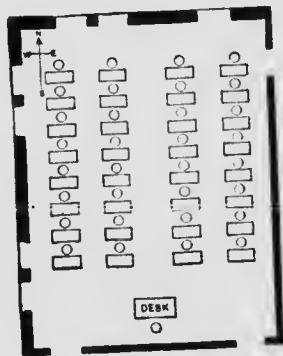
- I. ZONES. What a zone is. Where each zone is.
- II. LENGTH OF DAY AND NIGHT. In the torrid zone. In the frigid zones. In the temperate zones.
- III. HEAT. Where heat comes from. Where the sun is when it gives us the most heat. Why the torrid zone is hot. Why the frigid zone is cold.

14. Map Reading.

Here is a drawing, or plan, of the floor of a room which is 24 feet long and 16 feet wide.



The right side of the plan represents the east side of the floor. The plan is just like the floor in shape, but much smaller. How many inches long is the plan? How many feet long is the floor? If 3 inches in the plan stands for 24 feet in the floor, what does 1 inch in the plan stand for? See if 1 inch in the width of the plan stands for 8 feet in the width of the floor. The plan is said to be drawn on a scale of 1 inch to every 8 feet.



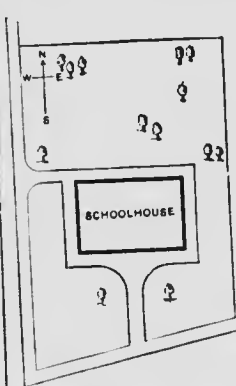
Plan of a schoolroom.

On the same scale, draw the floor plan of another room which is only half as large as the first; that is, 12 feet one way and 16 feet the other way. If you draw this plan correctly, you will find that it is just half as

large as the first. If the plans are drawn on the same scale, you can tell by comparing them just how much larger one room is than the other; and if you know the scale on which the plan is drawn, you can tell from it the real size of the room.

Which is the east side of your schoolroom? How many feet long is the room? How many feet wide is it? Draw a plan of your schoolroom floor, making the right side of your plan represent the east side of the floor. Your teacher will help you to draw it to a scale. Show upon your plan the location of the doors, windows, desks, and other objects in your schoolroom.

How long is your school yard? How wide is it? In what part of it is the schoolhouse? Make a plan, or map, of the yard; show the location of the gate and of the schoolhouse.



Map of a school yard



Map of a town.

In what direction does your schoolhouse front? On what street is it? In what direction does the street extend?

On what street is your home? In what direction is it from the schoolhouse? Make a map showing the location of the schoolhouse and of your home.

The pupils may help the teacher to make upon the blackboard a map showing the principal streets and buildings of the town. Each pupil may try to make such a map himself. Write the names of the different places on the map. Show on it which direction is east.



Two slopes which meet at their lower edges.

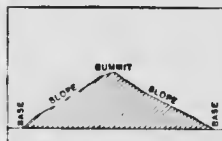
15. Field Work.

Arrangements should be made, whenever possible, to give the class the great benefit of lessons in the field.

Is the land about your schoolhouse level or sloping? In what direction does the land slope? Are the slopes gradual or steep? Are they called *hills*?

Point to the top, or *summit*, of a hill. Point to the foot, or *base*, of a hill. The sides of a hill are called its *slopes*. Sometimes there are two slopes, one on each side. Are the slopes just alike? Which is the longer? Which is the steeper? Are all the hills you have seen just alike?

Make in sand or clay a model of the hill which you have just been studying. Draw on the blackboard a *profile* or *section* of the hill, as in the picture, showing how steep the slopes are and which one is the longer. Write a description of the hill which you modeled.



Profile or section of a hill.

What becomes of rain water that falls on the land? How far down a slope will water run? What stops it? Above is a picture of two slopes which meet at their lower edges, forming a *valley*. Where the slopes meet thus we often find a *stream*. Examine a stream in your neighborhood. What is a stream? Is the stream straight or winding? Is it clear or

muddy? What makes a stream muddy? Is this stream in a valley? How many slopes has the valley? Are all the streams that you have seen, in valleys? Model a valley in which a stream flows.

Examine the shore of a pond or lake. Some shores are steep and rocky; others are low and level. At some places on the *coast* or shore of the ocean the waves dash against the land, breaking off great pieces of rock and rolling them about until they are worn into sand, which is carried away by waves and currents. At other places the waves wash up the sand and spread it as a smooth and gently-sloping beach. So the edge of the land is constantly changing its shape, and is generally crooked.

How can you find the directions north, south, east, and west? It is also possible to find these directions at night by means of the stars. On a clear night, you may see a group of seven stars, as in the picture below. What does the shape of the group remind you of? The group of stars is called the Dipper. If you follow onward with your eye the line of the front side of the Dipper, you will see another bright star. This is called the North Star. *The earth's axis always points toward it.* The direction on the earth toward this star is north.



The group of stars is called the Dipper.

We may also find the north by means of a wonderful instrument called the *compass*. It is a little bar of magnetized steel balanced on a sharp point about which it can turn freely. When disturbed, this bar or needle swings to and fro, but always settles to rest with one of its ends pointing very nearly toward the north pole.

When suitably mounted in a glass-covered box, this instrument is called the *mariner's compass*, because it is always used by mariners or sailors in guiding ships over the trackless ocean.



Mariner's compass.

MAP OF THE WORLD.

As the earth is a globe, it is impossible to show accurately on a flat surface the whole outside of it in one view.

It is important, however, to have a general view of the earth's surface at one time, in order to show the relative positions of places, their true direction from one another, the belts of heat or cold in which they lie, and many other things. The most convenient arrangement for this purpose is that of the map of the world given on page 23.

This Mercator map does not give the true proportions as to size, and we notice this especially in the great land masses in the north. In many other ways, however, the advantages of the Mercator map more than make up for this defect. *The British Empire, to which we belong, is shown in color.*

What continent is shown in the centre of this map? What are its two grand divisions? In which of these is our own country? What ocean is east of North America? What continent is beyond this ocean? Name its grand divisions. What ocean is west of our continent? What continents lie beyond this ocean? What ocean is west of Australia?

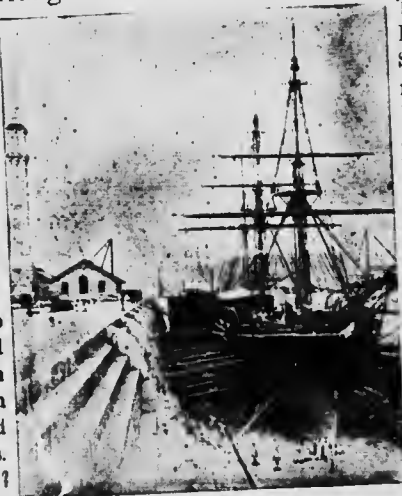
What grand division extends farthest south? In what cape does it end? Which extends farther south, Australia or Africa? What noted cape is at the southern end of Africa? Find Bering Strait. What continents does it separate? What strait is between Europe and Africa? Asia and Africa? Find the Suez Canal.

Find the great seaport of London. A seaport is a city or town to and from which sea-going vessels sail. Find New York. These two cities are the world's greatest centres of commerce. Tell on what waters and in what directions a steamer would sail on the following voyages: From London to Montreal for a cargo of flour and meat. From New York to Havana for sugar. To Para for rubber. To Manila

by way of Cape Town for hemp. From London to Calcutta by way of Cape Horn. From Vancouver to Melbourne. From Liverpool to New Orleans for a cargo of cotton. *Other voyages may be suggested by the teacher.*

Find the equator. In what latitude are all places north of the equator? South? Between what degrees of latitude are most of the large cities of the world? What city of Asia has about the same latitude as New Orleans? What cities of Africa? What cities are south of the 30th degree of south latitude? In what latitude are the West Indies?

Find New Zealand, Jamaica, British Guiana, India, Tasmania, and the Falkland Islands. Point out Quebec, Gibraltar, Aden, and Singapore. Name the waterways commanded by each. Where are the British Isles, Newfoundland, Vancouver, and Japan? Find Malta, Trinidad, and Ceylon. Locate the Baltic Sea, Hudson Bay, and the Sea of Okhotsk. Find the Arabian Sea, Gulf of Mexico, and the Bay of Bengal. Turn the book round so that the south of the map will be the top. Which half of the world has most water? Which has most land? Find Cuba and Madagascar. Point out Paris, Berlin and Tokio. Where are the Cape of Good Hope, North Cape, Cape Horn, and Cape Farewell? Notice the position of North America upon the earth's surface. What grand division can be reached by sailing east from



Dry Dock, Esquimalt.

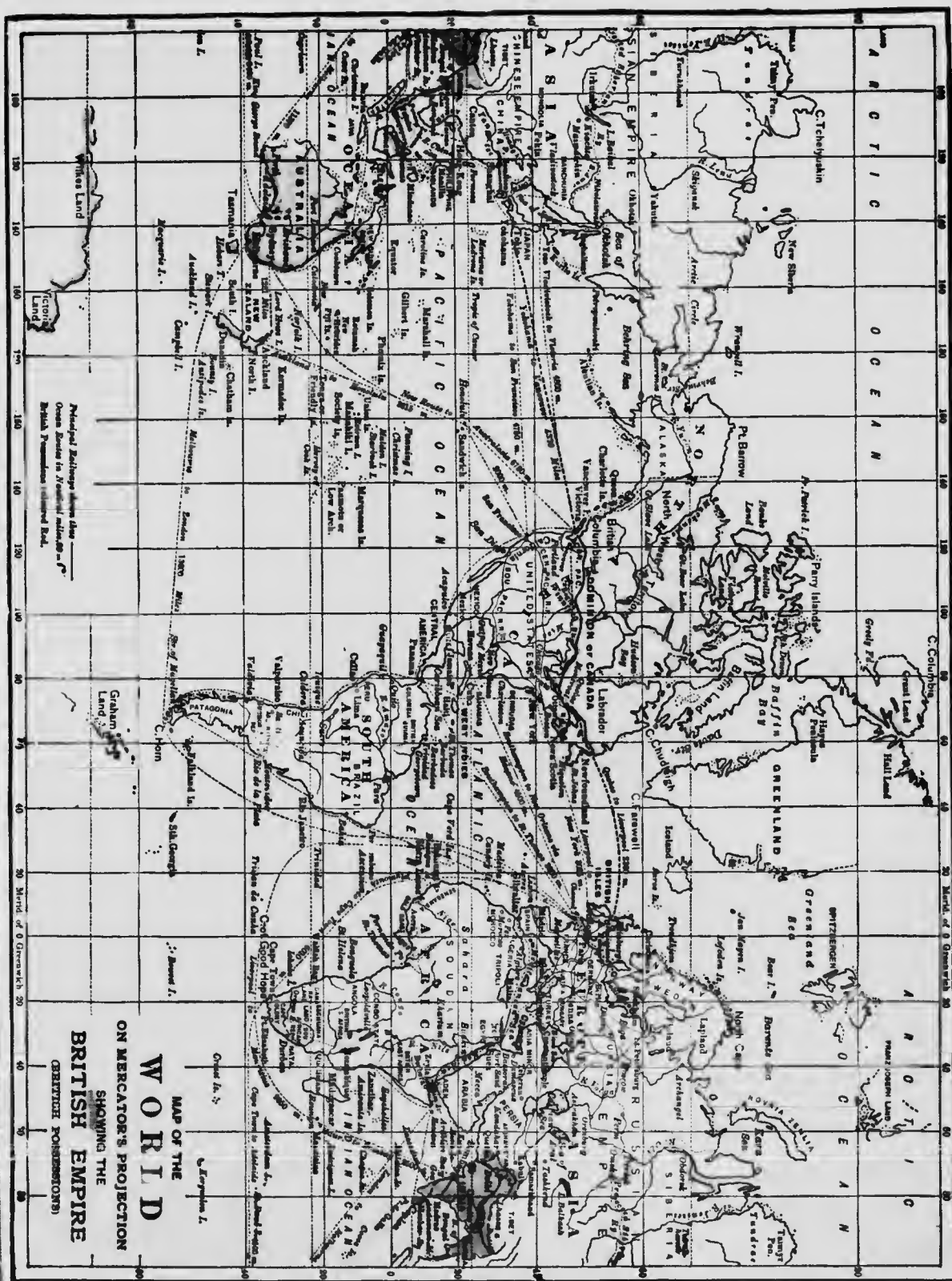
North America? By sailing west? What oceans would be crossed? In what direction would we sail to reach Australia? On what ocean? What is the most southern land called? What is the most northern land called? In what ocean is it situated? What sea is between North and South America? What sea between Europe and Africa? What sea between Asia and Africa? What is the southern point of Africa called? What is the southern point of Ceylon called? What islands lie to the east of Asia in the temperate zone? What part of America is nearest to Japan? Where are the Sandwich Islands? In what direction from San Francisco are they? Point out the Sea of Japan, the China Sea, and Iceland.

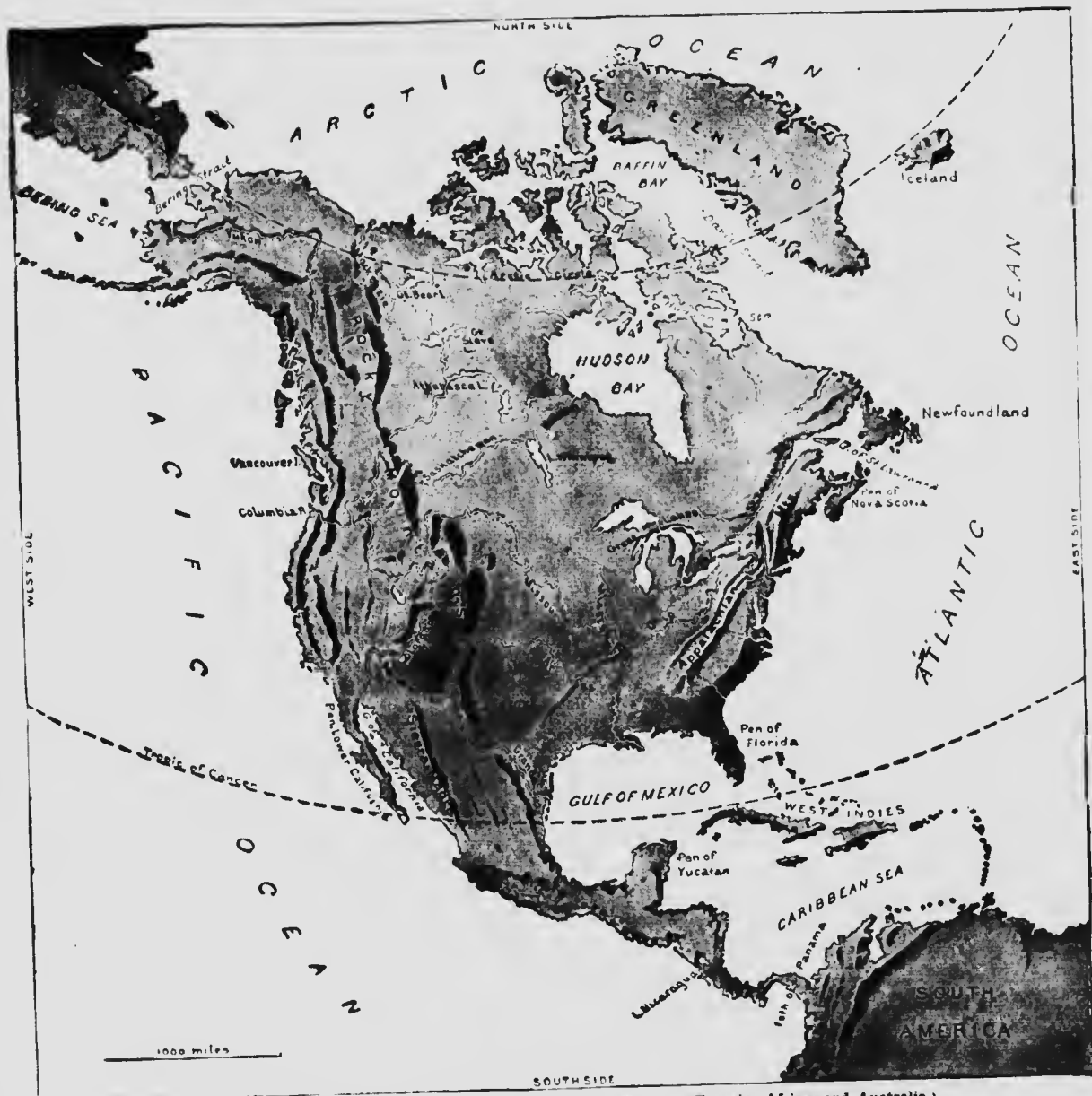
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NORTH AMERICA. Same scale as the maps of South America, Eurasia, Africa, and Australia.

In some parts of North America there are plains that lie but a short distance above the level of the sea. These plains are called *low-lands*. There are also plains that lie far above the level of the sea. These plains are called *plateaus*. From these high plains the mountains often rise still higher, and the elevated regions,

whether mountains or plateaus, are called *high-lands*. Look at the relief map of North America. Notice that some parts are darker than others. This difference in shade is to show the difference in the *altitude* of the land, or its height above the sea level. The darker in shade, the greater the altitude of the land.

NORTH AMERICA.

16. Position and Shape.

In what continent do we live? In what grand division of that continent? In a former lesson we studied a map of North and South America together; a larger map of North America by itself is shown on the opposite page.

What circle crosses the northern part of North America? What tropic crosses the southern part? Is North America, then, north or south of the equator? In what zones is it?

What ocean is north of North America? East? South and west? With what land is North America connected on the southeast? How? What land is shown in the northwest corner of the map? What strait separates North America from Asia? What is a strait?

If you should sail west from North America across the Pacific, what continent would you reach? Which side of it? If you should sail east from North America across the Atlantic, what continent would you reach? On which side of it would you land?

How many sides has North America? Which side is longest? Which of the other two sides is the longer? Where is North America widest?

Is the coast line on any side of North America a straight line? Point to a place where the shore bends inward so far that a part of the water is almost shut in by the land. A body of water extending into the land from a larger body of water is called a *gulf*, *bay*, or *sea*.

What large bay in the northern part of

North America? What strait connects it with the Atlantic Ocean? The strait and the bay were named after Captain Henry Hudson, who was one of the first white men to sail into them. While in this bay, his crew sailed away with the ship, and left Hudson and his son in a little boat to die from cold and hunger.

What strait and bay west of Greenland? Great blocks of ice, called *icebergs*, larger than the largest house, and vast fields of ice can be

seen floating in these waters. Seals, walruses, and other animals that live in cold water often climb out upon the floating ice, and great white or polar bears sometimes swim to the ice to catch and eat these animals.

What gulf is in the extreme east of North America? The part of the ocean near the Gulf of St.

Lawrence is one of the best places in the world for catching codfish and mackerel.

What large gulf is in the southern part of North America? What sea is north of the Isthmus of Panama? What long, narrow gulf is on the west coast of North America?

What sea is in the northwest, between North America and Asia? Most of the seals whose fur is made into sealskin muffs and jackets are killed in this sea. What strait connects this sea with the Arctic Ocean? What is a gulf, bay, or sea?

Find a place just south of the Gulf of St. Lawrence where a part of the mainland of



Polar bears swim to the ice.

North America extends out into the Atlantic Ocean so as to be nearly surrounded by water. A portion of land thus extending from a larger body of land and nearly surrounded by water is called a *peninsula*, which means "almost an island." What is the name of this peninsula? The Acadians, about whom Longfellow wrote in the beautiful poem "Evangeline," lived in Nova Scotia.

What peninsula is between the Gulf of Mexico and the Atlantic Ocean? What peninsula is southeast of the Gulf of Mexico? What long, narrow peninsula is in the southwest of North America?



Draw an outline map of North America like the small one here given, but larger and without the islands. Compare it with this one, and find your errors. Practice sketching this map on the black-board and on paper until you can draw in two minutes a good outline of North America.

17. Islands.

On which side of North America are most of the islands? Name the largest island north of North America. What island is east of Greenland? In what zones is Greenland? Most of this island is always deeply buried under snow. The first white men to visit it were sailors from Iceland. They found a little grass-covered slope, which they called Greenland; then this name was given to the whole island. Do you think the name suits it?

What island is east of the broadest part of North America? This island was visited by English sailors a few years after Columbus came to America. Icebergs from Greenland

are often seen floating in the ocean as far south as Newfoundland.

What islands are east of the Gulf of Mexico? Columbus was the first white man who visited these islands. Until the time of Columbus few people believed the earth to be round, and no one knew of any Western Continent. When people went to Asia from Europe they traveled eastward, as we did in crossing the Eastern Continent. Columbus was sure that he could reach Asia quicker by sailing westward around the earth. When he landed on these islands he thought he had reached the Indies in Asia, so he called the people Indians, and afterwards the islands were called the West Indies. In what zone are most of these islands?

What island near the middle of the west coast of North America?

TOPICS FOR ORAL OR WRITTEN WORK.

- I. LOCATION OF NORTH AMERICA. Zones. Bordering oceans.
- II. SHAPE. General shape. Comparison of three coast lines in length. Description of one coast line: general direction; indentations; projections; islands.

18. Mountains.

The map on p. 24 shows by the smooth and even shading where the surface of the land is smoothest and flattest, and by the broken and irregular shading where the surface is most broken into steep slopes.

In which part of North America does the surface seem most uneven? The whole western part of North America is broken by mountains.

Are the slopes of the hills which you have seen gentle, or steep? Are those hills as high as a church spire? Are they as high as the clouds? Some hills are so high that their tops are often hidden in the clouds. Such hills are always called *mountains*. But a mountain need not be as high as the clouds, for any hill that is quite steep and much higher than the surrounding country is likely to be called a mountain. Very many of the mountains in the western part of North America are so high



Map Studies.—Look at the map above. Name and locate the capital of Canada. What two cities are on the St. Lawrence? What city is in Nova Scotia? What three cities are in southern Canada west of the Great Lakes? Notice what circle crosses the northern part of Canada.

What very large island is northeast of North America? By what waters is Greenland surrounded? What circle crosses Greenland? In what zone is the greater part of Greenland? What island is east of Greenland? What oceans

surround Iceland? What should you suppose the climate of these islands to be?

On which side of the Rocky Mountains are there vast plains? Name the largest river flowing into the Gulf of Mexico. What highlands are on the east and west sides of the Mississippi basin? Which part of the central plain is drained by the Mississippi river and its branches?

What river forms the outlet of the Great Lakes?

Sketch the general outline of North America, using only three straight lines.



The Rocky Mountains.

that their rocky tops are frequently hidden by the clouds.

Some hills stand by themselves and are surrounded, on all sides, by low land. In what directions does the ground slope away from the top of such a hill? More often, however, hills extend in long lines with slopes on but two sides, like the ridge of a roof. Such a line of hills is called a *ridge* or a *range*; and a number of neighboring ranges, extending in about



Such a line of hills is called a ridge or a range.

the same direction, form a *chain* of hills or mountains.

In what direction do most of the ranges in western North America extend? What is the name of the longest mountain chain? These mountains extend nearly the whole length of North America. In the north they are always covered with snow, and even near their southern end, in the torrid zone, some of the higher points, or *peaks*, are snow-covered throughout the year; for the higher we go, the colder we find the air to be, so that even in the torrid zone, if the land is high enough, we find ice and snow.

What two long ranges west of the Rocky Mountains? Between these ranges, and the Rocky Mountains is a broad *highland*. It is crossed by short mountain ranges and deep narrow gorges, or *canyons*. This highland, with the mountain ranges on its borders, is much higher than any other part of North America, and is often called the *Rocky Mountain highland*.

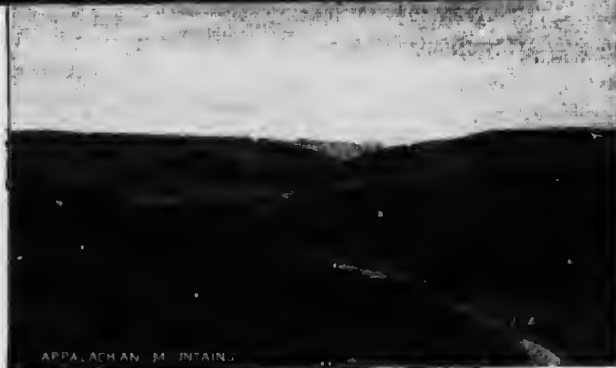
Where this highland is widest, what part of the width of North America does it occupy?

Where does it cover almost the whole width of the continent?

What other mountains in North America? Near what ocean are they? Between what two gulfs and in what direction do they extend?

Which look higher and more rugged on the map—the Rocky Mountains, or the Appalachian? The Appalachian Mountains are much the lower. Their highest summits are

scarcely as high as the flat country at the foot of the Rocky Mountains. They are not high enough to be covered with snow all the year, and few are so high and rocky that trees and grass cannot grow on their very tops. Thus the Appalachian Mountains, with their smooth, flat tops covered with trees, look very different from the higher mountains of the West, which are covered with trees only part way up their slopes, while their pointed and uneven tops, when not covered with snow or hidden by the clouds, are seen to be rugged crags of naked rock.



TOPICS FOR ORAL OR WRITTEN WORK.

- I. MOUNTAINS. A mountain. A mount. A range. A mountain chain.
- II. ROCKY MOUNTAIN HIGHLAND. Its location. Its direction. Its greatest width. Its borders.
- III. APPALACHIAN MOUNTAINS. Their location. Comparison with Rocky Mountains: in height; in appearance.

19. Plains.

In the map on p. 24 what part of North America seems smoothest and flattest? Is there a place near your home where the ground, for a great distance in every direction, is flat and nearly level? Such a place is called a *plain*.

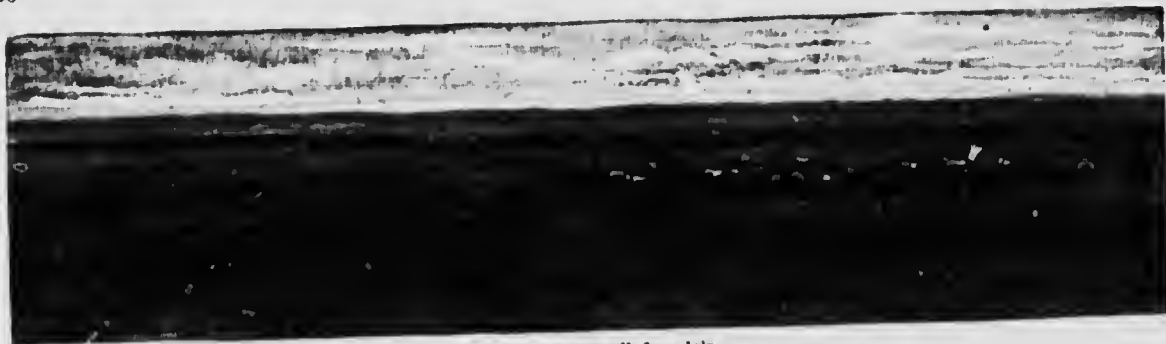
The central part of North America is a vast plain. What mountains border this great central plain on the west? On the east? By what is it bordered on the north? On the south?

Did you walk uphill or downhill in coming to school this morning? Perhaps part of the way

the ground was so nearly level that you could not tell whether it sloped up or down. If your path had been alongside of a stream of water, even though flowing in the gutter, you could have told which way the ground slopes.

How does the flow of water show this?

Much of the great central plain of North America is so nearly level that you cannot see its slope. How can you tell which way it slopes? The *rivers*, or large streams, are shown on the map (p. 24) by white lines. You see that several of them flow from the Rocky Mountains or the Appalachian Mountains, across the plain to the sea. Notice these rivers, and tell which way the northern part of the plain slopes; the central part; the southern part.



Such a place is called a plain.

The part of the plain near the Rocky Mountains is higher than the tops of the Appalachian Mountains, and might be called a *plateau*, which is another name for a high and broken plain. The parts of the central plain near the Appalachian Mountains and between the Gulf of St. Lawrence and Hudson Bay are also low plateaus. These higher parts slope gradually down to the central part of the plain, which is a broad lowland.

East of the Appalachians is a small plain. What ocean borders it? Which way does this plain slope? It is called the *Atlantic coast plain*.



Part of the Atlantic coast plain.

Model North America, showing the Rocky Mountain highland, the Appalachians, and the central plain.

TOPICS FOR ORAL OR WRITTEN WORK.

- I. PLAINS. A plain. A plateau.
- II. GREAT CENTRAL PLAIN. Its location. Its borders. Its slopes. Its plateaus. Its lowlands.
- III. ATLANTIC COAST PLAIN. Its location. Its slope.

20. Drainage.

In what direction does the southern part of the central plain slope? What river shows this? It is the largest river of North America. Several large rivers flow into it and are called its *branches*. Any stream is a branch of the stream into which it flows. Name two branches of the Mississippi flowing from the west. In what direction, then, does the western part of the central plain slope? Name one eastern branch of the Mississippi. In what direction does the eastern part of the central plain slope?

Hold this book open as shown in the picture. So held, the book forms a little trough with two side slopes and a bottom slope. This is like the great trough in the land in which the Mississippi flows, except that the land is not so smooth and regular. What is such a trough in the land called?



How wide a valley have you seen in your walks? The Mississippi valley is hundreds of miles wide, and its side slopes are very gradual.

Let us travel up the Mississippi to the place where the Ohio joins it. This place is called the *mouth* of the Ohio. The place where any stream flows or empties into a larger stream

or other large body of water is the mouth of the stream. Point to the mouth of the Mississippi; of the Arkansas; of the Missouri. If we travel up the Ohio from its mouth, we shall pass the mouths of many streams, for the Ohio, like the Mississippi, has many branches, though they are not shown on the map. If we ascend these branches, we shall find that they, too, have smaller branches, and these have still smaller branches, until the streams are mere brooks or rills. A river, with all its branches, big and little, is called a river *system*.

When rain falls, some of the water flows directly into the streams, but much of it sinks into the ground. The ground can hold much water. The water-soaked ground often rests upon a bed of rock or clay, so that the water cannot sink further, but trickles down until it reaches the surface and bubbles out as a *spring*, as shown in the picture below.



A section through a spring.

When you walk in the country, and come to a spring, you will know that the water bubbling out into the little pool fell as rain, perhaps weeks before, and has been flowing underground ever since. So springs may flow throughout dry seasons.

There are many such springs in the central plain, from each of which a little stream flows to join other streams and become part of the great Mississippi system. The place where a stream begins or rises is the *source* of the stream. It may be a spring, or a pond, or a marsh, or the melting snow and ice upon some mountain side. Point to the source of the Mississippi; of the Arkansas; of the Missouri.

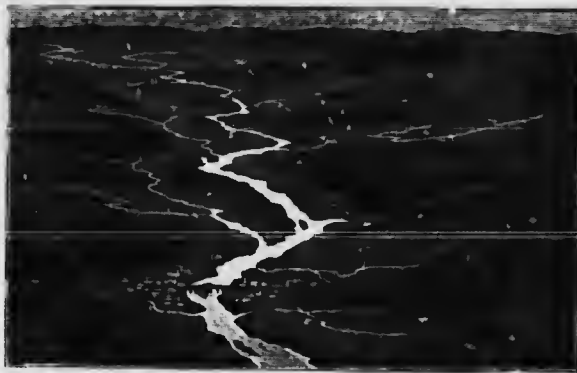


A river system.

All the land sloping toward any stream of the Mississippi system is in the Mississippi valley or *basin*. A stream basin includes all the land drained by the stream and by any of its branches. Point out the basin of the river in the picture below. Draw your pencil around the basin of the Mississippi River. (Map, p. 24.)

In the lower part of the Mississippi River the water is muddy. Where do you think the mud comes from? Where does the mud in the gutters come from, on a rainy day?

Swift streams wash away particles of the land through which they flow. If the earth on a hillside is loosened in any way, the rain water will wash much of it down to the lower land. If this should go on long, what would happen to the hillside? Streams are always carrying loads of earth from the highlands, but



A river basin.

in the springtime they carry more than at other seasons. Why? The soil of many a fer-



A delta.

tile field west of the Appalachian Mountains is being washed down into the Ohio River.

The water in the lower Mississippi sometimes rises, so that it overflows the banks and covers the country on either side with a shallow expanse of muddy water. Put a lump of earth into a tumbler of water, stir the water until it is very muddy, and let it stand awhile. What happens to the earth when the water becomes still? When the water of the Mississippi spreads over its banks, it ceases to flow so fast, and drops part of its load of earth. The land on both sides of the lower Mississippi is covered many feet deep with soil left in this way by the river. The plain thus built up by the Mississippi is called its *alluvial* or *flood plain*. Nearly all rivers have flood plains formed in the same way. Such plains are generally very fertile.

Strong *levees*, or embankments, are built along the banks of the lower Mississippi to keep the water from overflowing and destroying the towns and farms on its flood plain.

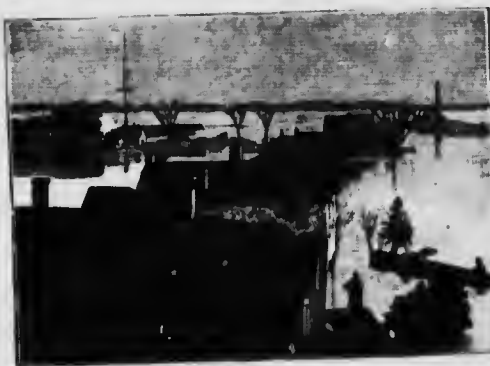
The current of the Mississippi is checked as it flows into the Gulf of Mexico, and much of the earth in its muddy water settles to the bottom. The bottom at this place is

thus gradually built up until a fan-shaped tract of low marshy land is formed, through which the river empties by several mouths. This tract of land is called a *delta*. It is constantly being built farther into the Gulf. Many other rivers build deltas at their mouths in this way.

Model North America; show the three slopes of the Mississippi basin.

TOPICS FOR ORAL OR WRITTEN WORK.

- I. MISSISSIPPI BASIN. Location. Extent. Surface: its western side slope; its eastern side slope; its bottom slope.
- II. MISSISSIPPI RIVER. Source. Direction. Mouth. Principal branches. Flood plain. Delta: what it is; how it is made.



A flood in the Ohio River.

21. Drainage, Concluded.

Below is a picture of two stream basins, side by side. Point to the rim between them. If rain falls on this rim, which way will the water flow? The rim between two basins is called a *divide*. Why? A divide need not

be very high, but it must be a little higher than the land on either side of it. Why?



The rim between two basins is called a divide.

In what direction does the land north of the Mississippi basin slope? How do you know?

Point to the divide between the Mississippi basin and the basins north of it. This divide extends across the central plain, and it is not very high. In some places the ground slopes from it on either side so gradually that it seems to be perfectly level.

North of the Mississippi basin are the basins of several large rivers.

What river flows down the east slope of the Rocky Mountains toward Hudson Bay? There is a great dam or obstruction across the lower part of its valley. When a river meets such an obstruction, it spreads out and must fill the hollow before it can flow over the dam and continue its course. The pool of still water above the dam is called a *lake*. How big a lake have you seen? The lake in the Saskatchewan basin is so big that at the widest part you cannot see across from one shore to the other. What is its name? What river

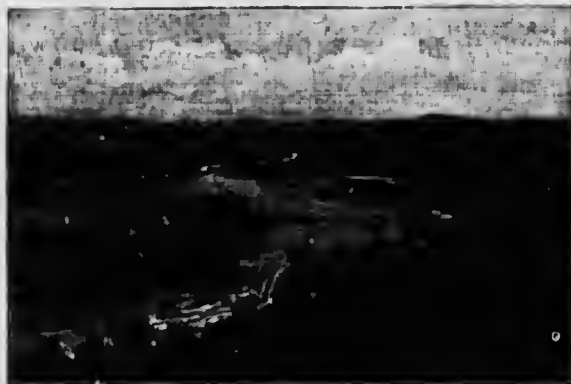
flows into it? A river which flows into a lake is called an *inlet*. What river flows out of Lake Winnipeg? The river flowing out of a lake is called its *outlet*. A lake may have many inlets; but it seldom has more than one outlet.

What river flows down the east slope of the Rocky Mountains into the great central plain and then northward to the Arctic Ocean? What three lakes are in its basin? There are thousands of lakes in this part of the central plain, but only the largest are shown on the map. Point to the divide between the Saskatchewan and the Mackenzie basins.

What three great river basins have you found in North America which extend as far west as the Rocky Mountain highland? What other river basin slopes from this highland to

the Gulf of Mexico? Which is the only great basin in the central plain that does not extend so far west as the Rocky Mountain highland? Draw a line around the St. Lawrence basin. What lakes are included in it? These are called the Great Lakes because of their great size. One of them is the largest fresh-water lake in the world.

Toward what ocean do all the great basins we have studied slope? Toward what ocean and from what mountains do all the other great basins of North America slope? So the Rocky Mountain highland divides North America into two great slopes, a slope toward the Pacific on one side, and a slope toward the Arctic and Atlantic on the other side. This great divide between the eastern and western slopes of North America is called the *continental divide*. For much of its length it lies along the top of the Rocky Mountains.



The pool of still water is a lake.

What is the most northern river of the Pacific slope? Into what sea does it flow? What river flows directly into the Pacific? Into what gulf does the Colorado flow?

Sketch North America, and show the principal rivers.

TOPICS FOR ORAL OR WRITTEN WORK.

- I. DIVIDES. Definition. Continental divide: position; comparison of the slopes into which it divides North America, — in direction, in size.
- II. SLOPES. Rivers in the Atlantic slope. In the Arctic slope. In the Pacific slope.

22. People and Subdivisions.

The map on the next page shows, by means of the little dots, the parts of North America in which most of the people live. In the parts where the dots are closest together the number of people is greatest, but in the places where there are few or no dots very few people live.

It will be seen that most of the people of North America live in two great groups. Where is one group? Where is the other? Hardly any one lives in the cold, northern part of America, and few people live in the Rocky Mountain highland, except in the south.

Because Englishmen discovered and explored the eastern shore of North America, the English people claimed nearly the whole of the continent, and England still rules the northern part, called the Dominion of Canada, in which we live. Find it on the map.

Great Britain also owned the eastern part of North America, south of Canada, and many people came from England to live there. They settled all along the coasts and rivers in *colonies*, and more people kept coming over from the British Isles for many years until at last there were thirteen of these colonies. After 160 years the country east of the Appalachians was the home of three million *colonists*, who rebelled against George III. on account of the laws he made about paying taxes. At the end of the war they set up a new government of their own and called the country the United States, which now extends across North America. Find it on the map. Find Alaska, which belongs to the United States. The English language is spoken by most of the people in the United States.

The part of North America west of the Gulf of Mexico and the Caribbean Sea was

settled by white men who followed Columbus to America from Spain. Most of the people living there still speak the Spanish language and might not understand us if we talked to them in English.

For a long time the King of Spain made laws for these countries and claimed to own them, but at last his soldiers were driven away by the Spanish settlers, who now own the countries and make laws for themselves.

The country west of the Gulf of Mexico is called Mexico, while the narrow strip of land between Mexico and South America is called Central America. Why?

Find Mexico on the map. Find Central America. What language is spoken in these countries? What language is spoken by most of the other people in North America? What, then, is one important difference be-

tween the two great groups of people in North America? The Rio Grande may be said to separate the English-speaking from the Spanish-speaking people of North America.

Sketch a map of North America; show where most of the people live, and mark the boundary line between the English-speaking and the Spanish-speaking peoples.

TOPICS FOR ORAL OR WRITTEN WORK.

- I. PEOPLE OF NORTH AMERICA. In what parts most of the people live. How they are divided according to their language.
- II. ENGLISH NORTH AMERICA. Countries. To whom each belongs.
- III. SPANISH NORTH AMERICA. Countries.



People are most numerous where the dots are thickest.

DOMINION OF CANADA.

MAP STUDIES.

What country lies south of Canada? Point out the parts of the boundary formed by straight lines. What are the other parts of the boundary line? Which boundaries are made by water? Which side of Canada is broken up into large islands? What great bay is found towards the middle of Canada? Name the Great Lakes that lie west and north-west of Hudson Bay? Where is the St. Lawrence?

WHEN the first white men came to America to live they found the country covered with forests and inhabited by Indians. These early settlers came mostly from France, Spain, and the British Isles. At first the British held only a narrow strip along the Atlantic coast; for the French took the northern half, and the Spaniards made themselves masters of the southern half of the interior. By and by these three nations went to war over the division of the new world, and long wars followed, cruel wars in which the savage Indians took sides. At last the French

and the Spaniards were obliged to yield to the British, who now became the ruling power. But large bodies of French remained in Canada, and their children's children still live here, chiefly in the Province of Quebec. The descendants of the Spanish pioneers dwell in the south-west of the United States, in Mexico, and in Southern America. The British settlements gradually occupied the valley of the Ohio and later on the whole valley of the Mississippi. They also crossed over Lakes Ontario and Erie and began to settle the territory which we now

call the Dominion of Canada. The other British colonies rebelled against the mother country in 1774 and formed a nation of their own, which is called the United States. But the Canadians, both French and English, refused to join this rebellion and remained loyal to the British flag; and many people in the eastern colonies were also unwilling to join in the revolt and came to live in Canada, where they were known as the United Empire Loyalists. They settled in Nova Scotia, New Brunswick, and Ontario, and before long very large num-

bers of people came from England, Ireland, and Scotland and made their homes in Canada. Little by little the population has increased for more than a hundred years, and now Canada has between five and six millions of people. Its extent of land is larger than the United

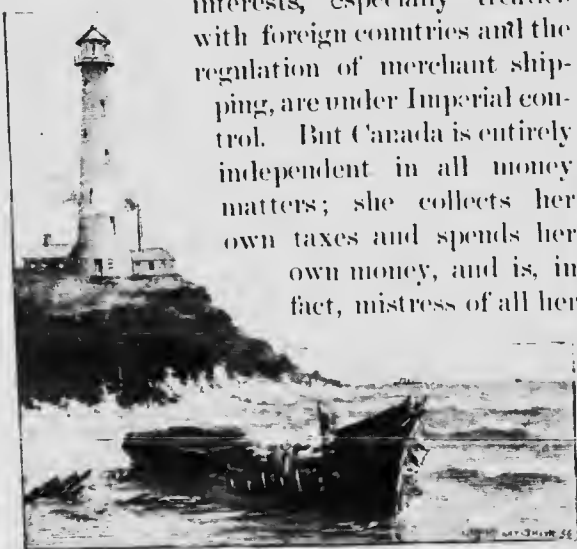


Central Block, Parliament Buildings, Ottawa

States, and is nearly as big as Europe. It forms about one-third of the British Empire. Some of our large tracts in the north are too cold for agricultural purposes, but they are rich in furs and minerals, such as gold, copper and petroleum. Canada was at first merely a number of scattered settlements widely separated. Then provinces were organized, and in 1867 four of these provinces were united under one general government and called the Dominion of Canada. These provinces were Ontario, Quebec, New Brunswick, and Nova Scotia. A little later Prince

Edward Island, Manitoba, and British Columbia joined the Dominion, and in 1905 the provinces of Saskatchewan and Alberta were formed out of the territory which lies between Manitoba and British Columbia. The island of Newfoundland and a narrow strip along the coast of Labrador are the only parts of British territory in the north of this continent that are not included in the Dominion of Canada. Ottawa is the capital, where chosen men meet to make our laws. A body of men of that kind forms a *parliament*, or legislature, and this is the parliament of Canada. Each province has its own Lieutenant-Governor and local parliament to deal with matters that concern that province alone, while the central or Dominion Government, under a Governor-General, looks after the general affairs of the whole country. Such a system of dividing the power of making laws is called a *federation* or a *federal system*.

As Canada is a British colony our Governor-General is appointed by the British Sovereign, who is at the head of the British Empire. All matters involving Imperial interests, especially treaties with foreign countries and the regulation of merchant shipping, are under Imperial control. But Canada is entirely independent in all money matters; she collects her own taxes and spends her own money, and is, in fact, mistress of all her



A Lighthouse.



An Ocean Greyhound.

own resources, and one of the freest countries in the world.

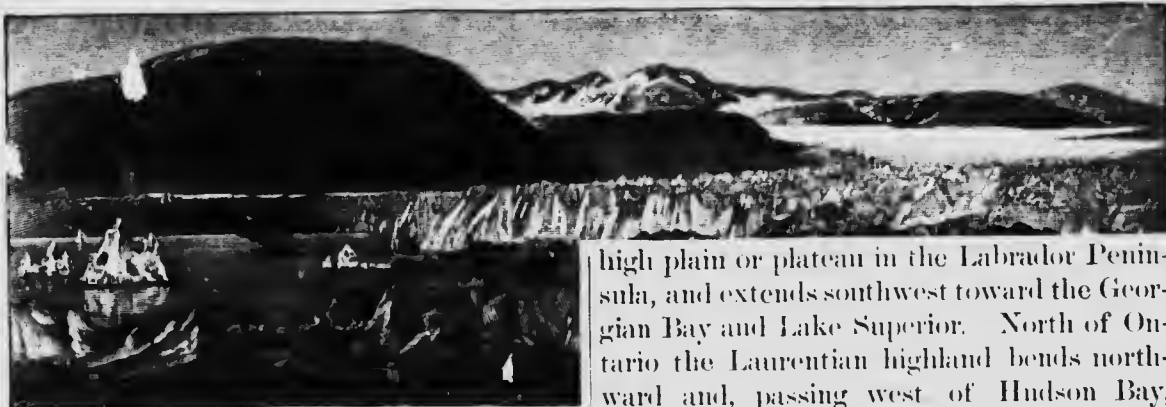
Besides the nine provinces, Canada has two districts. These are Yukon, which has its own local government and capital, Dawson, and the vast region lying east of Yukon, surrounding Hudson Bay and stretching northward from the provinces to the Arctic Ocean, called the North-West Territories.

Position and Coast Line.

Where are Montreal, Ogdensburg, Kingston, Oswego, Toronto, Rochester, Port Colborne, Buffalo, Port Stanley, Cleveland, Windsor, Detroit, Sarnia, Port Huron, Goderich, Saginaw, Owen Sound, Chicago, Port Arthur, and Duluth?

Canada has an excellent position for the exchange of goods with all other parts of the world. All along the great waterway formed by the St. Lawrence and the great lakes, and also by means of railways that run overland, we trade with the United States. We also trade by sea and send ships to Australia, China, and Japan on the west, and very many more across the Atlantic to England and the Continent of Europe. The coast line on both sides of Canada is full of bays that enter the coast and form numerous harbors. On both sides we have several of the finest harbors in the world.

Our country is so wide from east to west and also from north to south that many different



Glacier.

sorts of plants and animals thrive in it, and it is so large that we have room for many millions of people. Canada is a prosperous and growing country, partly on account of the sturdy people who settled here and the free institutions and good laws they have established; partly because of the great resources of the country in timber, fish, minerals, and farm products; and partly owing to its position which gives it short routes over the seas.

The coasts of Hudson Bay and the broken shores of the Arctic are of little use in navigation because the ice blocks these seas for most of the year. But an extensive coast trade is carried on along the Atlantic and the Pacific shores.

Relief.

From which ocean do most bays enter our coast line? Point out a river on each side whose mouth forms a harbor. Point out one large gulf or bay and one smaller one on each side of Canada.

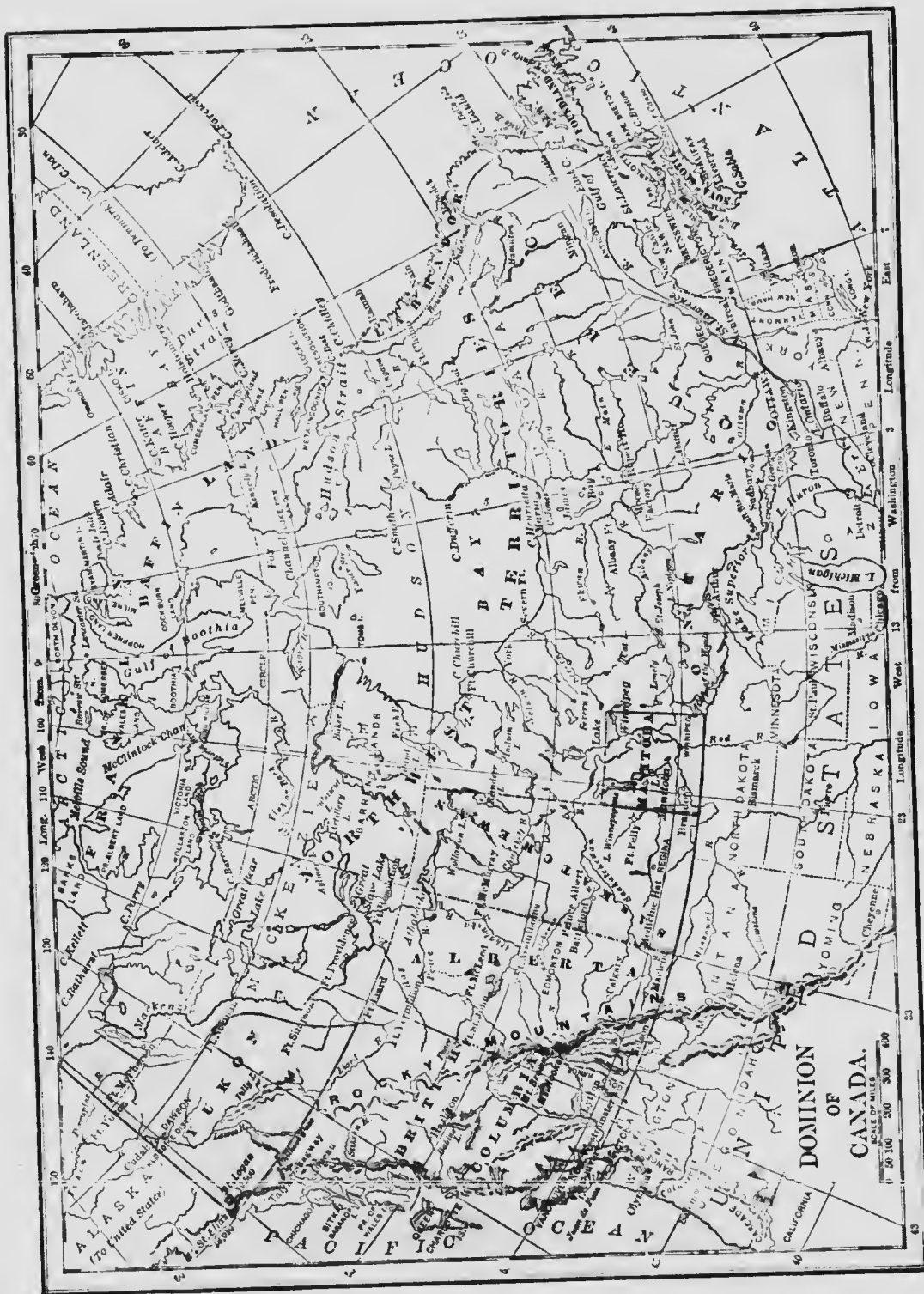
The Appalachian chain extends along the eastern side of America, and is lowest at the north, where it passes over Canada east of the St. Lawrence under the name of the Notre Dame Mountains, which reach to Gaspé. Parallel spurs of this system are also found in New Brunswick and Nova Scotia. The Laurentian highland begins with a broad,

high plain or plateau in the Labrador Peninsula, and extends southwest toward the Georgian Bay and Lake Superior. North of Ontario the Laurentian highland bends northward and, passing west of Hudson Bay, reaches toward the Arctic Ocean. This broad, curved highland is lower than the Appalachian system, and is often known as The Height of Land. It encircles Hudson Bay on three sides. A branch or off-shoot of this height crosses Saskatchewan and extends towards the Rocky Mountains. It is the *divide* or *watershed* between the great valley of the Mackenzie River and the immense plains that form Alberta, Saskatchewan, and Manitoba.

These two immense river valleys occupy the heart of Canada, and their waters come from the Rocky Mountains, which rise like an enormous wall along the western limit of these river systems. Near the mouth of the Mac-



Trading Post, Hudson Bay Company.



kenzie they are low and form the divide between that river and the Yukon. Southward the Rocky Mountains grow higher and higher.



Railroad across the Rocky Mountains.

and are flanked westward by a broad plateau which in the middle parts of British Columbia rises from 3,000 to 5,000 feet. This interior plateau is broken up into long, narrow valleys by rapid rivers, and extends southward to the United States and westward to the Coast Range Mountains. Between this latter range and the Pacific Ocean lies the coast plain, which is deeply notched by long, narrow bays bordered by steep walls of rock. These bays are often called fiords. The coast plain is very narrow towards the north, but broadens out at the southern part of British Columbia. Outside the coast lies a long chain of islands which are the remains of a former range of mountains 2,000 miles long that has been partly covered by the Pacific.

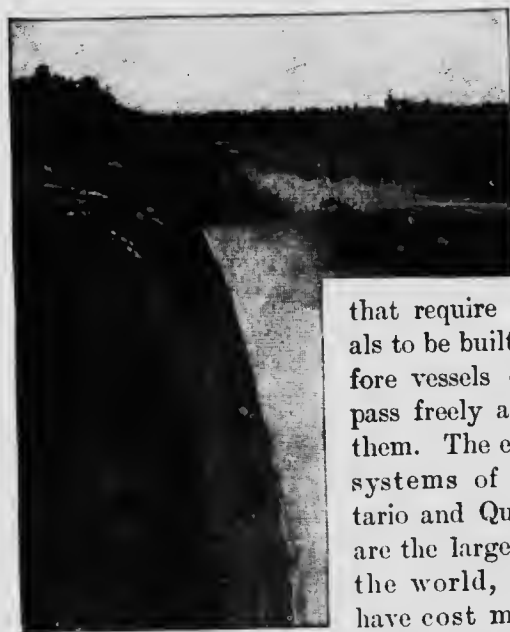
Name the largest islands along the Pacific coast. Islands of this kind that have been broken off by the sea are called *Continental Islands*.

Drainage.

Which is the largest province in Canada? Which is the smallest? What territory borders on Hudson Bay? What provinces touch its borders? What province lies west of the province of Manitoba? Through what territory does the Mackenzie flow? What is the most eastern province of Canada? Name the most western. Which

province lies farthest south? What province lies between Ontario and New Brunswick? West of Ontario? What are the remaining divisions of Canada? Where is the Yukon territory? Point out the three great rivers of Canada. Tell where each of them empties its waters.

The interior of Canada is traversed by mountains and plateaus that divide it into three great systems of drainage. The valley of the St. Lawrence on the Canadian side includes the Provinces of Quebec and Ontario, except two or three small sections in the north that drain into the Hudson Bay. All the rivers of this system, even the great St. Lawrence itself, have pretty swift currents and often rapids and waterfalls. They supply power for driving machinery and enable us to manufacture goods for market and to produce electricity for lighting, for running railway cars, and other purposes. The St. Lawrence and many of its branches, such as the Ottawa, the Richelieu, and the Trent have long stretches of navigable water; but that immense river and most of its tributaries have rapids

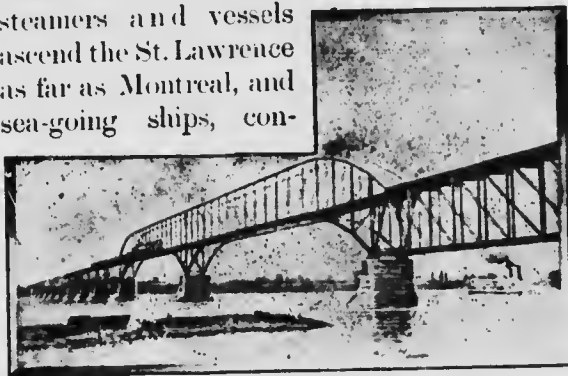


Niagara Falls.

that require canals to be built before vessels can pass freely along them. The canal systems of Ontario and Quebec are the largest in the world, and have cost many millions of dol-

lars. The scenery along the streams and lakes of this great river system is often very remarkable. The Falls of Niagara between lakes Erie

and Ontario, and the Thousand Islands at the head of the St. Lawrence, are celebrated the world over for their wild beauty. Ocean steamers and vessels ascend the St. Lawrence as far as Montreal, and sea-going ships, con-



C. P. R. Bridge over the St. Lawrence.

stricted to pass through the canals, can sail to the farthest extremity of Lake Superior, a distance of more than 2,400 miles inland.

The next great drainage system is that which empties its waters into Hudson Bay. It includes Manitoba, Saskatchewan, Alberta, and part of the North-West Territory. The Churchill, with its numerous lake expansions; the Saskatchewan, with its long branches and large lakes; Red River, Winnipeg River, English River, the Albany, and the Nelson--these are the great outlets for the waters of the vast plains that stretch from the Lake of the Woods to the Rocky Mountains, and extend around the rim of Hudson Bay, reaching northward to the northern part of Saskatchewan. The Saskatchewan and most of the rivers connected with it are navigable by small steamers, thus forming another immense system of river navigation which is of great value to the country. Not many of these streams supply much water power; but in southern Alberta the water is diverted from them in some places and used to water dry plains. This is called *irrigation*, and it makes agriculture flourish where it would be uncertain or impossible without *irrigation ditches*.

The northern part of Saskatchewan and all the northern portions of Alberta and the western part of the North-West Territory belong to the third great drainage system of the interior of Canada which has the Mackenzie River for its waterway. The whole course of the Mackenzie and its affluents is through fertile land covered with forests. This river and its connections supply thousands of miles of navigable waters and immeasurable water power, all of which will some day be turned to effective use as the population increases. The Mackenzie itself is navigable for 1,300 miles, and trees a foot in diameter are found growing at the *delta* of the river; garden vegetables thrive at the trading posts scattered here and there along its course. The northeastern part of Saskatchewan and the part of the North-West Territory west of Hudson Bay are chiefly level, treeless plains, a swampy expanse of rock, lake, and muskeg. This region is known as *The Barren Lands*, the home of the musk-ox, the reindeer, and all kinds of waterfowl.

Besides these three immense systems of continental drainage, we find several minor systems. Yukon District is drained by the Yukon River into Bering Sea. The southern parts of



An Irrigation Canal.

British Columbia are drained southward by the Columbia and the Fraser. The coast has short rapid streams that enter the hundreds of long, narrow bays. New Brunswick and Nova Scotia, on the other side of the continent, are drained into the Atlantic waters by small rivers.

What other great river rises south of the Athabasca? To which drainage system does it belong? What river has its source north of the Athabasca? Notice its two branches in British Columbia, and see how it cuts through the mountains, forming a water-gap. What branch has the Peace from Alberta? Does it cut a water-gap through the Rocky Mountains? Learn the names of other passes in these mountains. What is the general direction of the Athabasca? Of the Peace? Where does each empty? What river drains Lake Athabasca? What is the next great lake? What river drains Great Slave Lake? What branch does that river receive from British Columbia? Name the two tributaries of this branch. What waters does the Mackenzie receive from the east?

Heat and Rainfall.

Canada reaches from the cold regions of the north to the warm and fertile belt of the south. The southern half gets much more heat and



Cedar, Stanley Park, Vancouver, B.C.

moisture than the northern half; also the Pacific Coast is much warmer than the Atlantic Coast. This is what we mean by a difference of climate. In the far north the summer lasts only a few weeks, and the heat is

only sufficient to grow such plants as moss and lichens. But the greater part of Canada lies in what is called the *cool belt* of climate, and has sufficient heat and rain to produce vegetables, fruit, grain, and large forests of timber. Snow falls in winter in every part of Canada, and in most places skating and sleighing make the cold months very enjoyable. It is a land of sunshine, and has nearly one half more bright days than England or Holland or Northern Germany. On the Pacific side the moderate climate extends as far north as Yukon; but on the Atlantic side the cold region extends as far south as the middle of the Labrador Peninsula. In

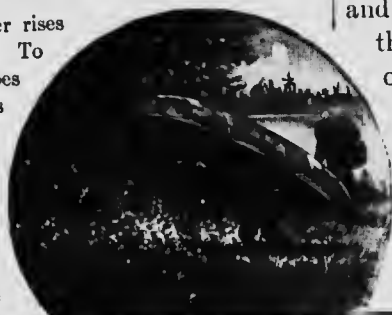
the western part of the great central plain the climate is so mild that forest trees grow along the Mackenzie beyond Great Bear Lake, and in the Yukon there is plenty of small timber along the streams for

firewood and mining purposes. No trees can grow in the northern parts around Hudson Bay. In the western plains of Manitoba, Saskatchewan, and Alberta the prairies have no trees except along the margins of the rivers because the fires that run over the grass destroy them. But the trees

which the settlers plant on the farms grow very well. The treeless district of the north resembles the northern parts of Europe



Public Gardens, Halifax, N.S.



Portage and Dog Sleds.



These Plains were once the feeding-place of great herds of Bisons.

and Asia and is rich in furs and fish. It also contains valuable minerals, and will by and by yield much gold, nickel, copper, coal, petroleum, and salt.

Can mines and wells be sunk in very cold countries? Find out something about the mines of Siberia.

When a kettle boils, some of the water is turned into vapor and passes into the air in little drops so tiny that we cannot see them. They are so small and light that they float in the air when it is warm. From every pond and stream and lake vapor is constantly rising, but most of all from the great wide ocean that covers about three-fourths of the world. The winds carry it about, and thus a great deal of vapor from the sea is brought over the land hundreds of miles away from the ocean. But cold air cannot hold so much vapor as warm air, so that when the wind turns cold over the land some of the vapor is dropped. Sometimes we see these vapor drops floating as *mist* and often far overhead as *clouds*, and sometimes they fall down in the form of *rain*. If these drops are frozen on the way down they form ice crystals, and appear as *hail* and *sleet* or beautiful flakes of *snow*. Thus the rain comes from the clouds, which are the chilled vapor that rises from the wide, wide sea.

Most of the winds blowing over

Canada come from the west and southwest. Where do these winds get their moisture? The west winds are cooled down so much in passing over the Coast Range along the Pacific that they lose much of their moisture on the western slopes of these mountains, which therefore have very heavy rainfall. In passing over the lofty Rocky Mountains, these winds are still further robbed of their vapor, and reach the great central plain as dry winds and bring very little rain or snow with them. Thus the western and southern parts of the great plain, including Southern Alberta and Southern Saskatchewan have a very dry climate, with very little snow in winter, and a long, rainless season in summer. Farther north the mountains decrease in height, and more moisture is carried over them to the central plain—thus Northern Alberta and Northern Saskatchewan have good sleighing in winter and more rain in summer. Farther south, in the United States, the central plain is still drier, so that large tracts are *desert* for want of moisture. But in Canada only a small part just along the boundary is *arid*. Most of our part of the prairie country gets sufficient rain and snow to make crops fairly certain, and immense



Cattle herding on the Great Plains.



Laurentide Pulp and Paper Co.'s Mill.

quantities of wheat are produced there. Farther east the winds come from the Gulf of Mexico. In what direction is that gulf from Ontario? These southwest winds sweep up the valley of the Mississippi and cause abundance of rain and snow. The great lakes also supply moisture to the surrounding districts. Ontario, Quebec, New Brunswick, Prince Edward Island and Nova Scotia likewise receive much water from eastern winds that blow in from the Atlantic. Hudson Bay, to the north, also supplies some rain and snow to these provinces, so that they are well watered and crops are certain.

Industries.

There are several great regions of our country in each of which the climate or the soil or the character of the people makes it possible to do some one kind of work better and more easily than any other. That kind of work is likely to be the chief occupation of the region. Farming may be carried on in nearly all parts of Nova Scotia, Prince Edward Island, New Brunswick, Quebec, Ontario, Manitoba, and most parts of Alberta and Saskatchewan.

Agriculture.

In all these provinces *agriculture* and cattle-raising are the principal occupations of the people. Grain-growing is the chief business

of most of our farmers, and Canada has one of the finest wheat belts in the world.

At the mouth of the Peace River on Lake Athabasca was grown fine wheat that took a prize at the Centennial Exhibition. Besides wheat our farms produce great quantities of other useful grains, such as barley, rye, peas, buckwheat, beans, and Indian corn. What use is made of each of these grains or *cereals*? From the animals of the farm—the cattle, hogs, sheep, and poultry—we get meat, milk, butter, cheese, eggs, hides,

skins and wool; we also sell thousands of horses. Our farms produce good crops of hay, turnips, potatoes, carrots, beets, tomatoes, and mangel-wurzels that are food for animals or for men. Flax and hemp are also grown. On the farms in many districts are valuable orchards of the best apples in the world. Besides plums, pears, cherries, strawberries, currants and other small fruits, peaches ripen in some parts of Canada and grapes thrive in almost all the provinces. Tobacco is an important crop in a good many districts. Thus Canada's greatest industry of occupation is agriculture.

Forests.

But the forest products of Canada are also very important. Canadian lumber made from maple, beech, elm, ash, pine, cedar, spruce, balsam, oak, walnut, butternut, chestnut, basswood, cherry, hickory, birch, or Douglas fir



Harvesting Wheat in Manitoba and the North-West.



Lumbering.

finds its way to all parts of the world. Collect specimens of all the different woods you can get. The Canadian sawmills are among the most extensive and perfect in the world. Lumbering in its stages employs a large number of our people. In cutting, hauling, rafting, sawing and shipping the square timber, scantling, planks, boards, and laths. The sawdust and the slabs are also used up to make pails, tubs, paper, and matches. Altogether we get a great deal of money from our immense forests of valuable timber. Even small trees are valuable, because they can be made into paper pulp, which sells as readily as wheat. Tanbark, tar, turpentine, and charcoal are also obtained from our forests. Let each pupil choose a Canadian tree and then talk to the class about it.

Fisheries.

The fisheries of Canada are of great importance to the country. Our innumerable fresh-water lakes and rivers over the whole extent of Canada abound in excellent fish, and the salt-water fisheries are the most productive in the world. In Nova Scotia, New Brunswick, Prince Edward Island, along the St. Lawrence and the Great Lakes, in Manitoba and the Territories, fish supplies a great deal of food for our people, besides what is shipped to the United States and other countries. The

dried codfish of the Gulf of St. Lawrence and the canned salmon of British Columbia are known the world over. Other valuable fish are trout, whitefish, salmon, mackerel, haddock, and halibut. Lobsters and oysters abound, and seals yield oil and fur.

Name over all the kinds of fish you have seen. How are fish caught? What is the largest fish caught in fresh water? Do you know where any of the fish-breeding stations of Canada are? Are seals provided with legs or fins? Where are they found? Name all the products obtained from the codfish. What are siscoes and sardines? What are shrimps and oysters? Where are oysters found in Canada? Are clams fit for food? How does a mackerel differ from a salmon? How are lobsters caught?

Mines.

Canada is one of the richest *mineral* countries in the world, that is to say she has a great supply of valuable materials in the ground, such as metals, coal, petroleum, salt, etc. Nova Scotia, the great central plains, and British Columbia abound in coal, generally of good quality. Iron ores of different kinds, some of them of the best quality, are found in almost every part of Canada. In Nova Scotia, Quebec, and Ontario iron is mined and smelted.

Gold has been found in large quantities in British Columbia, in the Yukon, and in smaller quantities in Ontario, Quebec, and Nova Scotia. Rich ores of silver occur in the northwest of Ontario and in the southern part of British Columbia. At Sudbury, Ontario,



Nickel Mines, near Sudbury, Ont.

immense beds of nickel are found associated with copper and iron. Petroleum is found in Gaspé in Quebec, and in Lambton and Kent in Ontario in large quantities, and in Alberta.



Name the things that are made out of crude petroleum. Natural gas is found at Welland, Leamington, and Kingsville in Ontario, and is sent by pipes to Buffalo, Detroit, and Windsor. The asbestos mines of Thetford and other places in Quebec are the largest in the world. Salt is found in great abundance in many parts of Canada, especially in western Ontario. Gypsum, or plaster of Paris, is found in Nova Scotia, New Brunswick, and Ontario. Mica, plumbago or black lead, and apatite or phosphate of lime are found in Ontario and Quebec and are valuable. Mineral tar, marble, lime, peat, and ornamental granite are other mineral products from which we make money.

Manufactures.

The manufactures of Canada are rapidly increasing. Creameries and cheese factories turn out butter and cheese of highest quality, mills convert our wheat into flour, and at the pork factories bacon is prepared. The canneries preserve vegetables, fruit, meat, and fish so that they can be sent in tins all over the world. Large quantities of agricultural implements, steam engines, locomotives, musical instruments, furniture, lumber, leather, boots and shoes are all manufactured throughout the older provinces. Sugar, tobacco, and cotton

goods are manufactured on a large scale, and our woollen mills, carriage factories, oil refineries, paper mills, sash and blind factories, and pulp mills are all extensive and growing industries.

Trade.

Much of the produce of Canada is used by her own people. What one place supplies in larger quantity than is necessary for local needs is exchanged for articles produced in another part of the country. The manufactures of the towns are sold in return for the wheat, the meat, the butter and cheese of the farm, for the lumber of the forest, or for the coal of the mine. Many railway and steamship lines are thus profitably engaged in domestic or internal trade.

But the production of many articles far exceeds the demand for them in Canada. The surplus is exported to other countries. We supply Great Britain with immense quantities of lumber, grain, meat, dairy produce. Lumber, minerals, fish, etc., are sold to the United States. The West Indies, Germany, and France also purchase from Canada.

We import goods that are manufactured more cheaply abroad, and also the produce of climates warmer than that of Canada. We buy woollens, cottons, and hardware from Great Britain, the United States, and Germany; tea



Coal is dug out of the ground.

from India, China, and Japan; fruit from the West Indies, the United States, Italy, and Spain; sugar from the West Indies.

The foreign trade of Canada has increased very rapidly in recent years (see tables in the Supplement). It now amounts to more than three hundred and seventy million dollars yearly.

Draw a map of Canada and mark the most important regions producing each of the following: Wheat, fruit, dairy produce, fur, lumber, coal, iron, gold. Name the chief commercial routes within the Dominion. With what countries does Canada carry on the largest trade? What are our exports to each of these countries? What are our principal imports from each? What are the most important cities of Canada engaged in foreign trade?

The Fur Trade.

In the early history of this country the fur trade was the only great industry, and it is still an important one. Furs are at present the chief commercial products of the North-West Territory. Montreal is the great



▲ Grizzly Bear.

centre of the trade; but many cargoes of furs go to Europe by way of Hudson Bay. The most valuable skins are beaver, marten, mink, lynx, otter, and muskrat. On the coasts of Labrador and Newfoundland large quantities of seals are captured. Altogether the fur trade represents a total yearly value of more than a million dollars.

Sections of Canada.

We may study Canada in detail in five sections.

(1) THE MARITIME PROVINCES, which are Nova Scotia, New Brunswick, and Prince Edward Island.

(2) THE ST. LAWRENCE PROVINCES: Quebec and Ontario.

(3) THE PRAIRIE REGION, including Manitoba, Saskatchewan, and Alberta.

(4) THE NORTHERN TERRITORY: The North-West Territory.

(5) THE MOUNTAIN REGION, namely British Columbia and Yukon.

Is the town or the country more useful to the nation? Is the miner or the lumberman the more useful citizen? Is gold or iron the more valuable metal? Is a carriage factory or a shoe factory the more important? Is Quebec or British Columbia worth more to Canada? Is the foundry or the flour mill more needed? Is Prince Edward Island or Vancouver Island worth more to the people?

MARITIME PROVINCES.

NOVA SCOTIA.

Point out the Bay of Fundy, Chignecto Bay, and Bay Verte. What isthmus separates the last two? What provinces does it join? What large island forms the eastern part of Nova Scotia? What salt lake divides this island? Where are the Cobequid Mountains? The North Mountains? The South Mountains? Draw an outline map of Nova Scotia showing the mountains and rivers. For what is Louisbourg noted in history? Why are there so many people of French descent in Nova Scotia? By whom and for what reason was Halifax founded?

Position and Coast Line.

Nova Scotia includes the large adjacent Island of Cape Breton, which is separated from it by a mile of water at the Strait of Canso.

On the west it connects with New Brunswick by the narrow isthmus of Chignecto, and the Bay of Fundy divides it from that province. Practically it is surrounded by water and is 360 miles in

length and from 65 to 100 miles in width. The coast line is about 1,500 miles



Martello Tower, Halifax.

long, and contains innumerable bays and harbors of all sizes. Most of them are very useful for navigation, but that part between Minas Basin and Digby Neck is steep and destitute of harbors. The warm gulf stream that flows along the east coast influences the climate.

Relief and Drainage.

The Cobequid Mountains ending at Cape Chignecto, North Mountain extending from Cape Blomidon to Digby Gut, and South Mountain running parallel to the latter, are the highest elevations. Most of the province slopes in a southeasterly direction from these mountain spurs. There are long, parallel ranges of hills and valleys that cross from east to west and diversify the coast. A belt of the sea coast is usually rocky and barren; from it no idea could be formed of the beauty and fertility of the interior. The Annapolis and the Cornwallis Valleys, for example, are protected from the chilly sea-fogs by the mountains and are famous for fine apple orchards. Lakes and streams are very numerous. The short rivers produce water power, supply safe and commodious harbors, and teem with fish. The salt lake or enclosed sea-arm of Bras d'Or bisects Cape Breton and the divisions differ widely in aspect. The northern part is mountainous with bold, rugged promontories, but the southern portion is low and level and much broken by the sea. The valleys and plains are fertile, the deep bays are alive with fish, and the scenery is very striking.

Industries.

Farming, fishing, mining, shipping, lumbering, and shipbuilding are the chief occupations. The forests supply plenty of timber and the

building of ships goes on at many places. The West Indies, the United States, and Europe receive great supplies of lumber from Nova Scotia, which owns large fleets of ships for the ocean-carrying trade and also for the coasting trade. Her ships and sailors are found on every sea and in every port, and such towns as *Windsor* and *Yarmouth* own fleets of vessels and do a large seafaring business. *Lunenburg* and *Liverpool* are noted for their fleets and for ship-building. The coal-mines of Cumberland, Pictou, and Cape Breton supply abundance of coal of the finest quality and close to the sea. The coal fields are extensive and have seams from twenty-five to seventy-five feet in thickness. Side by side with these rich deposits



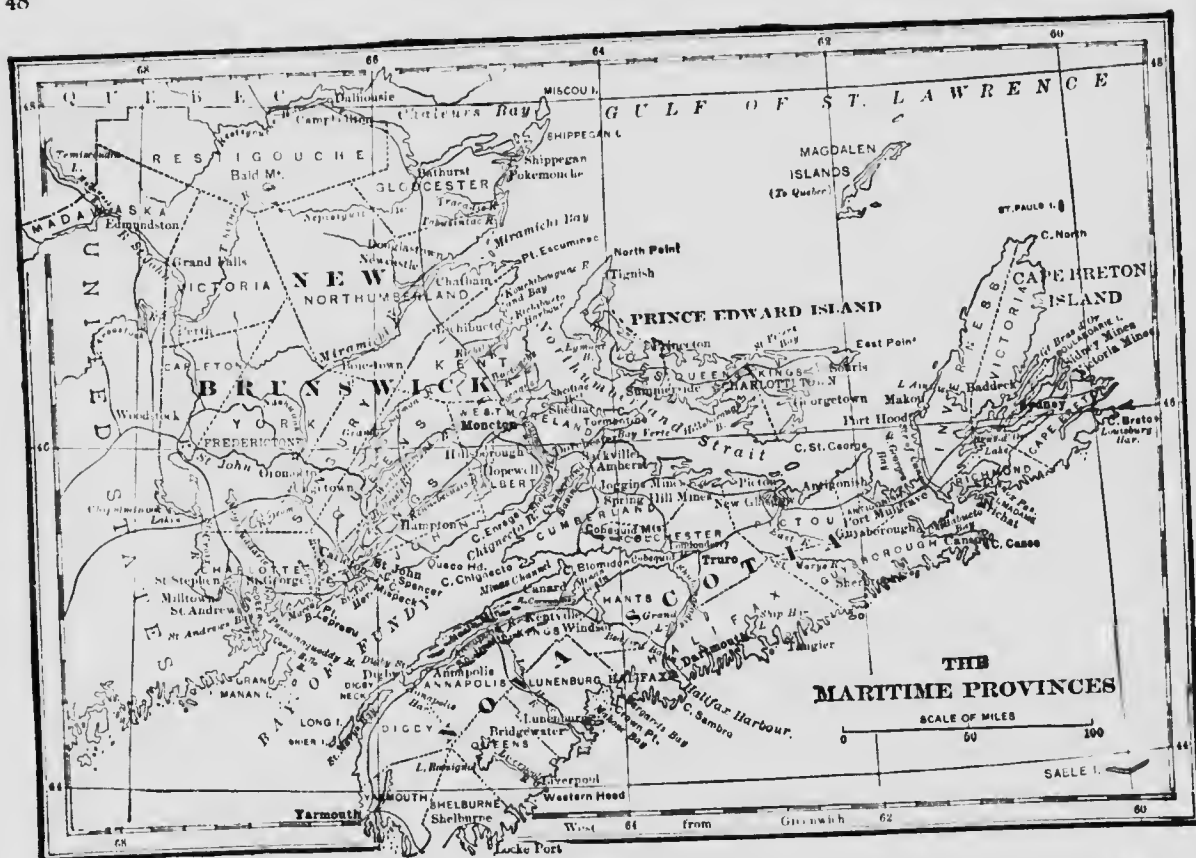
Docks at Halifax.

is found iron ore of workable quality. At *Sydney*, *Londonderry*, and *Ferrona* iron of excellent quality is made. The gold-fields of Nova Scotia have over thirty mines in operation along the

east coast. Large deposits of gypsum abound and immense quantities are exported, as well as granite, marble, freestone, and lime. But the most productive industry is the business of catching and curing fish, which yields from six to eight million dollars' worth a year, employs 14,000 boats and ships, and over 30,000 fishermen. No other country has a greater supply of delicious fish.

The interior contains many fine stretches of farming land, where potatoes, apples, hay, oats, and cattle are raised for export, chiefly to the United States and Great Britain. The salt marshes along the coasts produce fabulous crops of hay, owing to the dikes which enable farmers to irrigate the sea-meadows.

MARITIME PROVINCES.



Chief Towns.

HALIFAX, the capital, is the only large place and has a population of over 40,000. It was founded in 1749 upon one of the very best harbors in the world. It has the strongest fortifications in America and the largest dry dock. The public gardens cover 18 acres, and there are some fine buildings, such as St. Mary's Cathedral and Dalhousie University. *Yarmouth* is next to Halifax in wealth and importance, and only St. John, Montreal, and Windsor exceed it as ship-owning ports in Canada. *Dartmouth*, opposite Halifax, has a large sugar refinery. *Truro* is the seat of the Normal School. *Springhill*, *New Glasgow*, *Pictou*, and

Sydney have coal mines in their vicinity; *Amherst* manufactures boots, shoes, engines, and furniture; *Lunenburg* and *Liverpool* are lumbering and fishing centres.

Point out Digby Strait, Minas Channel, and Northumberland Strait and tell what two bodies of water are connected by each. Where are St. Mary's Bay, Digby Neck, and Cornwallis River? What strait connects St. George's Bay with Chedabucto Bay? What cape near the mouth of Halifax harbor? What island lies out in the ocean south-east of Halifax?

Sketch a map of the province and mark the railways and principal towns. Color the districts black where coal is found. Mark the iron districts brown and the gold district yellow. What is gypsum? What is its use? Where is it found in Nova Scotia? Describe the Intercolonial Railway. Describe the various sorts of fish captured by the fishermen of Nova Scotia.

NEW BRUNSWICK.

Draw an outline map of this province. Mark on it the chief bays, rivers, and towns. Mark also the courses of the railway lines. What are the chief occupations of the people in New Brunswick? Explain the drainage system of the province. Make a list of the kinds of fish caught in and near New Brunswick. How do the New Brunswick rivers alter in their lower stretches? Point out Grand Falls, Grand Lake, and Grand Manan Island. What bays form the north and the south boundary respectively? Where are Shipagan Island, Shepody Bay, and Salmon River? What kinds of ships are built in New Brunswick?

The province forms an irregular square, with Quebec on the north and the State of Maine on the west, and with coast lines along the south, east, and part of the northern boundary. The highland in the northwest corner belongs to the Notre Dame elevation, from which three chief river systems and many smaller ones take their rise. The Restigouche and the Miramichi flow eastward into the Gulf of St. Lawrence, and the St. John southward into the Bay of Fundy. The mouths of these and numerous other

streams expand into fine bays and harbors which are of the greatest advantage for shipping, and the rivers themselves are often navigable for long distances, since the tide runs a long way up their channels. The soil along these river valleys is productive and the climate near the coasts is modified by the sea, especially on the south coast, where the influence of the Gulf stream is felt. The interior is only sparsely settled and has a climate similar to that of Quebec. It is free from the fogs that often prevail along the coasts, the rain fall is abundant, and the snow lies deep in winter, providing excellent facilities for lumbering. The

tides in the Bay of Fundy are very remarkable and rise from 30 to 50 feet, thus preventing the bays from freezing over in winter.

Industries.

Lumbering, ship-building, and fishing are the chief occupations; farming and mining stand next. The middle and northern portions are heavily timbered, water power is abundant, and the numerous sawmills along the rivers turn out vast quantities of timber and lumber to the value of over five million dollars per year, which goes largely to Europe. On the Miramichi and the St. John, ship-building was formerly a great industry, which has somewhat declined since

iron ships began to displace wooden ones, but it is still a very important business at many coast towns. In shipping and ship-building the province stands next to Nova Scotia. The fisheries employ over 10,000 men and over 5,000 ships and boats; they yield from four



City of St. John, N. B.

to five million dollars' worth of cod, haddock, herring, mackerel, salmon, and other excellent fish, besides oysters of fine quality. Farming is becoming more important as the forests disappear, and mixed farming is very successful. Cattle-raising and dairying are increasing rapidly. Every kind of grain and root crop of Canada is produced, and two-thirds of the province is well suited for agriculture. The mines yield asbestos, gypsum, granite, and lime, the three latter of which are exported in large quantities. There are several large cotton mills and some large woollen mills, besides many smaller ones. Hardware, heavy machinery,

leather, boots and shoes, and other things are also manufactured.

Cities and Chief Towns.

St. John is the largest place and commercial centre, and includes



Legislative Buildings, Fredericton.

Portland and Carleton as suburbs. The population is over 40,000. It has railway connection by the Intercolonial, the Canadian Pacific, and the Shore Line. St. John is the principal port of Canada in respect of shipping and ranks fourth in the Empire, along with London, Liverpool, and Glasgow. A fine suspension bridge spans the Narrows and also a cantilever bridge just above the Falls, which are reversed twice every day by the high tides that fill the gorge and turn the stream up the river so that vessels can pass over the buried cataract at the turn of the tide. *Moncton* is an important and growing railway centre on the *Petitecodiac*, a tidal river in which the extreme variation between high and low water is the greatest in the world. A sugar refinery, a cotton factory, and the head offices of the Intercolonial R. R. are located here. *Fredericton*, the capital, has a history reaching back to 1692, and is now a railroad centre, with four lines and a fine waterway to the Bay of Fundy. It is the headquarters of a large lumber trade, of cotton and leather manufacturing, of extensive canneries, and is the market for a rich agricultural section. A military school, a normal school, and a university are situated here, and also a Gothic cathedral and the

legislative buildings for the province. *Chatham* is the chief town on the gulf coast, with a very good harbor and large interests in lumbering, fishing, and ship-building. *Newcastle*, five miles up, is at the head of the deep water navigation on the Miramichi. It is also a ship-building centre, and does a large trade in lumber and fish. *Woodstock*, 75 miles above Fredericton, is at the head of navigation on the River St. John, with a rich farming country about it, and manufactures lumber. *Campbellton*, *Dalhousie*, *Milltown* and *St. Andrews* are thriving towns.

PRINCE EDWARD ISLAND.

What strait cuts off Prince Edward Island from the mainland? What island lies east of Prince Edward Island? What group lies to the northeast? What is the nearest point of New Brunswick? Describe the soil and climate of the island. Into how many natural districts do the large bays separate it? What is the latitude of the southern shore? What are the longitudes of the most northern and the most eastern points?

Physical Features.

The strait of Northumberland divides the island from Nova Scotia and New Brunswick, but between Cape Traverse and Cape Tormentine the distance is only nine miles. A submarine telegraph is laid between these points, and communication with the mainland is maintained by lines of steamers that connect with the Intercolonial and Canadian Pacific Railways. A powerful



City Square and Normal School, Fredericton.

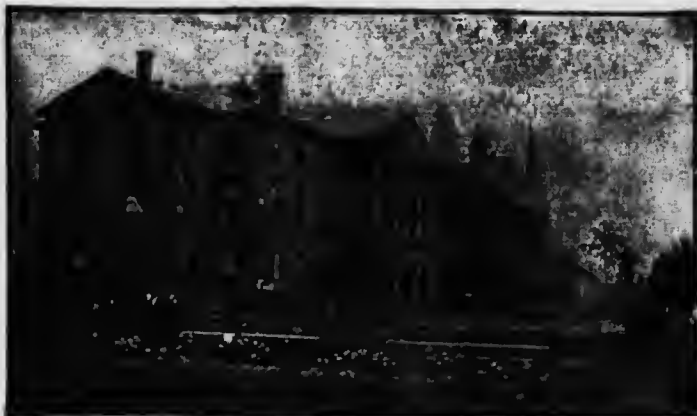
steamer specially constructed for navigating the straits in winter runs between Georgetown and Picton, a distance of 30 miles. The island is about 150 miles long and its greatest width 34 miles. The long coast line abounds with fine bays and inlets, and the surface is level or undulating, with no broken land and everywhere cultivable. The soil is rich red loam, extremely fertile, and the climate is more equable than that of the mainland.

Industries.

Farming is the chief occupation, and wheat, oats, barley, potatoes, and turnips are abundant crops. Fine horses, cattle, sheep, and hogs are largely produced. The fisheries are the best in the gulf and employ about 4,000 men, for the shallow waters near the island are the feeding grounds of immense shoals of delicious fish, and large quantities of cod, mackerel, oysters, lobsters, and herring are taken. There are no extensive factories, but the home market is supplied by local manufactures, such as starch, preserved meats, etc. A railroad traverses the middle of the island.

Chief Towns.

CHARLOTTETOWN, the capital, population 12,000, has a splendid harbor and some fine buildings. It is the chief distributing centre and does a large trade. A meat-curing industry has recently been estab-



Legislative Buildings, Charlottetown.

lished. It is the seat of the provincial government, which also takes charge of many municipal affairs throughout the island. *Summerside* is the principal town in the west, and has a capacious harbor. *Georgetown* is the chief place in the east. *Princeton* and *Souris* also have good harbors.

What means of communication has P. E. I. with the mainland? What are the places where the railroad ends? These towns are called the *termini*: one of them is called a *terminus*. What are the land products of this island? What products are got from the sea? What factory products are made? What is the size of the island? P. E. I. is the most densely peopled province in the Dominion; mention some reasons for this fact.

Point out five parts of the western boundary of N. B. that are formed by straight lines. Where are Cumberland Basin and Cobequid Bay? What danger would there be in walking along the beach at these places when the tide was out? What is the most southern point of N. S.? The most eastern point of N. B.? Name the northern extremities of P. E. I. and C. B. Point out the great seaports of the Maritime Provinces. What produces the great fogs round the coasts of these provinces?



St. Dunstan's Cathedral.

Across what ocean do we trade with the West Indies? With Japan? Australia? Point out the great systems of internal communication by water routes. Point out the three great chains of lakes along three great valleys of drainage. Draw an outline map of the St. Lawrence and the five great lakes. Point out these large inland lakes that drain into the St. Lawrence: Nepigon, Nipissing, Simcoe, and St. John. Give the boundaries of the Gulf of St. Lawrence and mention the islands found there. Point out the three inlets to this gulf. Make a list of all the chief ports on the St. Lawrence and the Great Lakes. Include U. S. ports as well as Canadian.

THE ST. LAWRENCE PROVINCES.

QUEBEC.



Champlain's Monument.

history from 1608 to 1759, inclusive.

What two rivers form parts of the northern boundary of this province? What river forms part of the western boundary? What parts of the boundaries are made by straight lines? Name the two largest islands in the St. Lawrence. What islands are found at the confluence of the Ottawa and St. Lawrence? Sketch a map of Quebec. Mark on it the large rivers that empty into the St. Lawrence. Mark also the cities of Quebec. Describe the city of Quebec and give an outline of its

Physical Features.

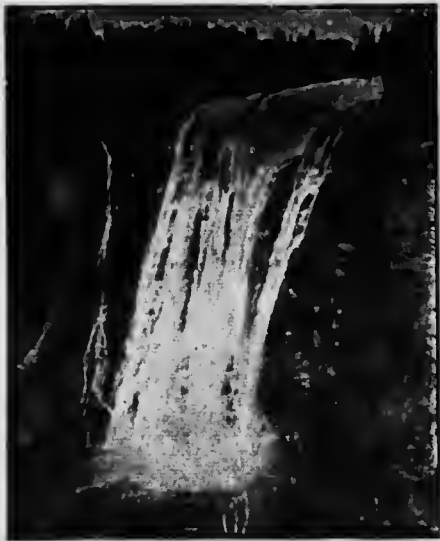
Next to the Province of British Columbia, Quebec is largest in extent. It has the United States and New Brunswick on the south and reaches northward 490 miles to the North-West Territory, and extends from Ontario eastward to the Gulf of St. Lawrence and Labrador over 1,000 miles. The southern portion is the most important, and is divided from southwest to northwest by the immense St. Lawrence, which has many large tributaries. On the north bank, the valley of the St. Lawrence, west of Montreal, is between 30 and 40 miles wide, and is flanked by the Laurentian range of low mountains, which close in about 20 miles below Quebec city almost to the edge of the river. This long triangular plain is level and fertile and contains the

months of a number of rivers, such as the great Ottawa, the St. Maurice, and the Saguenay. These streams rise on the Height of Land, which is the crest of the great Laurentian plateau that occupies the whole northern part of the province to Ungava. They cut their way through the Laurentian range, often forming cataracts where they descend to the river plain, such as the Falls of Montmorency, near Quebec, and the Falls of Shawenegan on the St. Maurice, and they supply enormous water power. The Ottawa Valley is the continuation of this plain on the northeast side of that river and has numerous large streams that also come down from the Laurentian plateau, such as the Rouge, the Lièvre, the Gatineau, the Conlonge, and the Du Moine, all of great importance to the lumber trade. The Ottawa, 615 miles long, carries a great volume of water and has several lake expansions, such as Lake of Two Mountains, Lake Chaudière, Lake des Chats, and Lake Temiscaming. It is navigable for long stretches



Legislative Buildings, Quebec.

by means of a system of dams and canals that overcome the rapids, and it encloses the large islands Isle Jesu, Calumet, Allumette, and at Ottawa descends the Chaudière Falls.



Falls of Montmorency.

On the south side the valley of the St. Lawrence is limited by the Notre Dame range, which enters a little west of Lake Memphremagog in long rolling swells, and extends through the peninsula of Gaspé, where some peaks are over 3,500 feet high. Below Quebec this range is within a few miles of the river, but east of Montreal the

plain is from 40 to 50 miles wide. It is fertile and well watered by the Richelieu, which drains Lake Champlain, and by other rivers that sometimes rise in the high, undulating country on the borders of Maine, and pass the Notre Dame range by water-gaps, such as the St. Francis and the Chaudière. The southeastern part of the province, comprising twelve counties, is known as Eastern Townships.

The mighty St. Lawrence is the greatest feature of Quebec. As it leaves Ontario it expands into Lakes St. Francis and St. Louis and below the mouth of the Richelieu into Lake St. Peter. Above Montreal are the famous rapids Long Sault, Coteau, Cedars, Cascades, and Lachine, which are overcome by a system of canals. Below Montreal the river is navigable by the largest ocean steamers, its waters are everywhere clear and blue, and the scenery along the shores is very remarkable for its great natural beauty. From Quebec it gradually widens into an immense estuary, which is over 150 miles wide at the Gulf of St. Lawrence. The islands are numerous—Anticosti, near the mouth, is 140 miles long; the island of Orleans, near Quebec, is 20, and Montreal Island 30 miles long.

Climate and Products.

The climate of Quebec is one of the most healthful in

the world. The summer heat in the St. Lawrence valley often exceeds 80°, so that wheat, Indian corn, grapes, and tomatoes come to perfection. Tobacco grows in several parts and yields large crops; apples are largely exported, and plums of fine flavor are grown in many counties. The winters are decidedly cold and the temperature



Montreal Docks.



Lachine Rapids.

often sinks to 10° or 20° below; but the cold is not unpleasant. The snow falls deep and lasts from December till April, forming excellent roads and leaving the ground in prime condition for rapid spring growth; so that spring wheat, potatoes, peas, beans, oats, hay, turnips, mangels, and garden vegetables are cultivated successfully in nearly all the settled parts of the province. The pasturage lands are of special excellence. Butter and cheese are produced in considerable quantities from the factories which are numerous in Quebec, and maple sugar is exported to Ontario and the United States.

Industries.

Agriculture is the occupation of the greater part of the people and oats and hay are the most valuable crops. The lumber trade is the most important commercially and employs a large number of people, especially in winter. The timber is very valuable and is chiefly obtained on the tributaries of the Ottawa in the region about Lake St. John, north of Quebec; but almost every district still contains supplies of timber and the whole Laurentian plateau is covered with forest, all of which is useful either

for wood or for paper pulp.

The fisheries of the St. Lawrence and the Gulf are extensive and

employ thousands of men, and the product is worth from one to two millions a year.

The extraordinary supply of water power makes up somewhat for the absence of coal mines, and places Quebec next to Ontario in respect to the value of its manufactures. Saw mills and flour mills abound, and there are large cotton mills, paper mills, and sugar refineries. Leather and boots and shoes are largely manufactured, all kinds of hardware and iron work, furs, hats, india rubber, and wood-pulp are also made in considerable quantities. The total value of the manufactured products is over 150 million dollars a year.



Notre Dame Cathedral, Montreal.

Mining is carried on but not extensively. The most important minerals in their order are asbestos, copper, and mica. Slate, granite, and iron ore of good quality are also found. The asbestos deposits near Thetford, in the County of Megantic, are in some places six inches thick, and the total value of the product is about half a million dollars a year. Copper ore is found at many places in the Eastern Townships, but the mines at Capelton are the principal ones that are now worked. Mica, which



Cotton Mill.



Interior of Cotton Mill.

has acquired a new value for electrical purposes, is found in excellent quality along the Lièvre and the Gatineau, and in the same locality are found rich deposits of phosphate of lime.

Near Ottawa are beds of graphite or black lead equal to the best in the world, and on the Gaspé peninsula petroleum has been found.

The pulp-wood industry was unknown a few years ago, but in ten years has sprung into first-class commercial importance. Quebec has extraordinary facilities for making and shipping pulp. Spruce grows everywhere in the north of the province and in most of Ungava; and the unlimited water power and the easy means of rafting on the great rivers make it certain that Quebec will in a few years export vast quantities of pulp to the markets beyond the sea.

Cities and Towns.

MONTREAL is the largest city in Canada and the largest commercial centre. It was founded in 1641 by Maisonneuve and was named Ville Marie in 1642, and extends for several miles along the east shore of Montreal Island. It has a fine harbor at the head of navigation for the larger ocean-going ves-



City of Quebec.

sels, has always commanded the trade of the Northwest, and is the greatest distributing centre for the imports of Canada. In the city and its suburbs there is a population of about 270,000, and it has more manufactories than any other city in the Dominion—cotton mills, rolling mills, sugar refineries, tobacco factories, boot and shoe

factories, rubber factories, and many others, representing almost every branch of industry. Its commercial supremacy, its vast wealth, its unrivalled situation, its picturesque mountain and fine park, its elegant public buildings, all combine to make it the most important city in Canada. The Victoria Jubilee bridge, 65 feet wide, and weighing about 22,000 tons, crosses the St. Lawrence here with 25 spans and a total length of 6,592 feet. *Quebec*—The provincial capital was founded in 1608 by Champlain at Cape Diamond, which marks the head

of the St. Lawrence estuary. It is the oldest and the most picturesque city in America, and holds the most commanding situation. The fortifications stand 333 feet above the river, the harbor is magnificent, and Quebec ranks as the third commercial city of Canada, with a population of about 70,000. It is the great timber



Basilica of Sainte Anne de Beaupre.

market and the headquarters of the ocean lumber trade, and has extensive boot and shoe factories, besides ship-building and other industries. Railroads connect it with Lake St. John, Montreal, and Ottawa. The historic associations of Quebec would fill a volume. Six times it has been assaulted by hostile forces, and has been the scene of many stirring events. *Leris*, on the south side of the river, has a population of 8,000. From it the railroads radiate to southern Quebec, the Maritime Provinces, and the United States. *Hull* is a thriving town on the north side of the Ottawa River, opposite Ottawa, and has a population of

about 14,000. The water power of the Chaudière Falls is utilized to work the extensive saw mills that manufacture the timber brought down the Ottawa. Matches, wooden ware, and paper-pulp are made on a large scale. *Sherbrooke*, at the mouth of the Magog River, where it joins the St. Francis, has splendid

water power and is the metropolis of the Eastern Townships. The railway connections with Montreal, Québec, and Portland are good. The manufacture of cotton and woollen goods and hardware is briskly carried on. The population is about 12,000. *St. Hyacinthe*, thirty miles east of Montreal, on the Yamaska river, has about 10,000 people and manufactures leather, woollen goods, and machinery. *Three Rivers*, near the triple mouth of the St. Maurice, has a population of about 10,000 and does a large business in lumber and iron. The latter is smelted from bog iron ore a few miles up the river and about fifty tons a day of excellent charcoal iron are turned out. *Valleyfield*, on

the Beauharnois Canal at the foot of the Coteau Rapids, has unlimited water power for its cotton mill, paper mill, and other factories. Population about 12,000. *Sorel* (population about 8,000) is at the mouth of the Richelieu and deals in iron manufactures. It has an excellent harbor for sheltering vessels in winter, and is a very old town on the ancient war-path of the Iroquois. Up the river there is a continuous water passage by Chambly Canal and Lake Champlain to Hudson River. At *Lachine* and *Chambly* extensive water power is converted into electricity and used in Montreal for light and motor power. Similarly, the

Montmorency Falls near Quebec supply the city with light and power. But the greatest power yet developed is that of the Shawenegan Falls on the St. Maurice, where the motive power is used to operate extensive pulp works.



McGill University, Montreal.

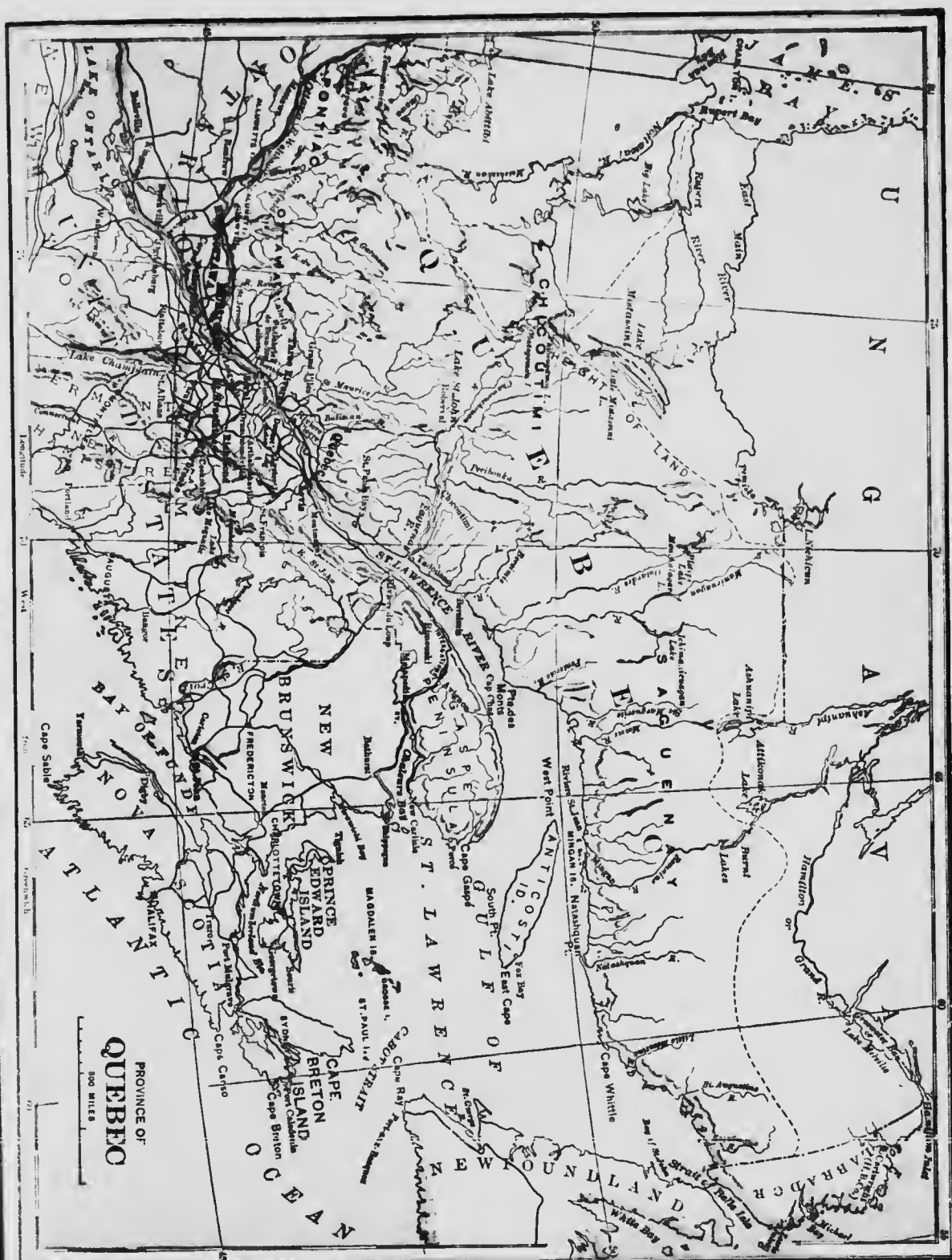
REVIEW EXERCISE.

Explain shortly why most of the people of Quebec are of French descent. Why is Quebec likely to become a great manufacturing province? Trace out on the map the railway system of Quebec. Find the following lines:—Intercolonial, Quebec Central, the Grand Trunk, Quebec and Lake St. John, the different sections of the Canadian Pacific, the Témiscouata, Bay of Chaleurs. What has made Montreal the greatest commercial city in Canada? Point out on the map the cities and towns of Quebec. Where are minerals of value found in the province? Name the most important. Draw a map of the St. Lawrence and its branches; mark the chief towns and cities. Describe the city of Quebec. Name all the rivers connected with Lake St. John. Point out on the map the lumbering and the agricultural regions of the province. Mention a few of the larger falls or cataracts on the rivers and tell the uses that can be made of them. Where are the largest pulp mills, paper mills, cotton mills, and iron manufactories? Draw a map of the Ottawa river on a sheet of foolscap and mark the lake expansions and the towns.

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EXERCISE.

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ONTARIO.

What provinces have larger extent than Ontario? Mention all the large bodies of water on the boundaries of the province. Name all the rivers along the boundaries. Which two are the largest? Where are Lakes Simcoe, Nipissing, Nepigon? Point out Lake of the Woods, Lonely Lake, and Lake St. Joseph. How do vessels pass from Lake Ontario to Lake Erie? How are the rapids of the St. Mary, the Ottawa, and the St. Lawrence overcome? Make a list of the lake ports of Ontario. Which of these are cities? Draw a map of Lake Ontario. Mark the principal ports, harbors, and river mouths on both sides. Do the same for Lake Erie, Lake Huron, and Lake Superior. Where are Manitoulin Island, Muskoka Lakes, and the Bay of Quinte?

Position and Extent.

This province is next in size to Quebec, and extends westward from Quebec to Manitoba over 1,000 miles, and as far north as Hudson Bay, which is about 700 miles north of Lake Erie. The St. Lawrence and the Great Lakes form the boundary on the south and southwest. Two systems of lake and river complete the boundaries of the province along Minnesota, Manitoba, and the North-West Territory. That portion lying south of Lake Huron and the Georgian Bay is called the Ontario Peninsula.

Physical Features.

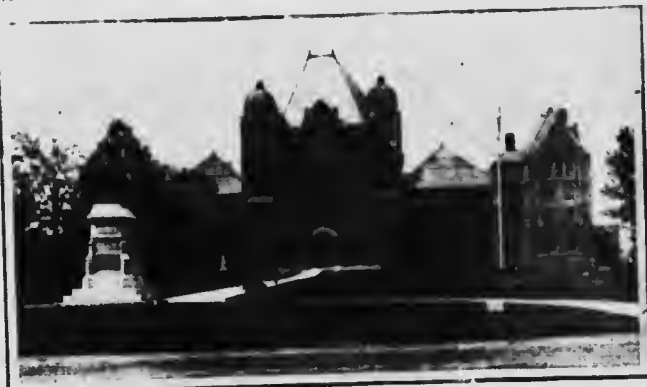
The St. Lawrence plain extends into Ontario, and occupies the triangle between the Ottawa and the St. Lawrence. The Laurentian plateau



University College.

occupies a great part of the north and is mostly covered with valuable timber. Its crest is lower than in Quebec and contains large tracts of good land, but most of it is rocky and unfit for farm-

ing. Its southern edge is bounded roughly by a line from the Thousand Islands to the mouth of Severn River. North of Lake Superior this edge is only a few miles from the shore, and towards Manitoba it turns to the northwest at a lower elevation. North of this height of



Legislative Buildings, Toronto.

land the country drains into James Bay and is a flat district covered with timber fit for pulpwood. The district south of the plateau and east of Lake Huron is divided into two plains by the ridge that enters at Niagara and reaches to the Bruce Peninsula. Of these the western plain is generally much the higher and contains the most fertile land in the province.

Drainage.

Into Hudson Bay flow the Abitibi, Moose, and Albany; the latter 440 miles long. The English and the Rainy Rivers flow into Lake Winnipeg by the Winnipeg River. Into Lake Superior flow Pigeon River, the Kaministiquia, Nepigon, and the Pie. The Georgian Bay receives the Thessalon, Spanish, French, Muskoka, Magnetawan and Severn. The Thames and the Grand are the largest rivers in the western peninsula. Emptying into the

Bay of Quinte are the Moira and the Trent, which latter is navigable for long stretches and drains a series of lakes. The Ontario branches of the Ottawa are the Montreal, Mattawa,

ST. LAWRENCE PROVINCES.

Petawawa, Bonnechère, Madawaska, Mississippi, and Rideau. They are generally shorter and smaller than the rivers of Quebec, but they supply enormous water power. The connecting links of the Great Lakes system are Lake St. Clair and four large rivers—Niagara, Detroit, St. Clair, and St. Mary's. The falls on the first-mentioned river and the rapids on the last afford valuable water power but interrupt navigation. They are avoided by the Welland Canal, 27

miles long, which has cost about twenty-four millions, and the Sault Ste. Marie Canal, a mile long, with a basin 60 feet wide, 20 feet deep, and 900 feet long. It has cost about four million dollars, and on it are built the largest pulp

works in the world. There are several considerable lakes distributed between Lake Ontario and Manitoba—Rice Lake and the lake system of the Trent valley, Lakes Simcoe, Muskoka, Nipissing 50, Abitibi 45, Nipigon 70, Rainy Lake 50, Lake of the Woods 70, Lonely Lake 100 miles long.

Industries.

Agriculture stands first in importance, and the chief products are wheat, oats, barley, hay,

Indian corn, and root crops. Cattle, hogs, butter, and cheese are produced in large quantities, and a good deal of fruit

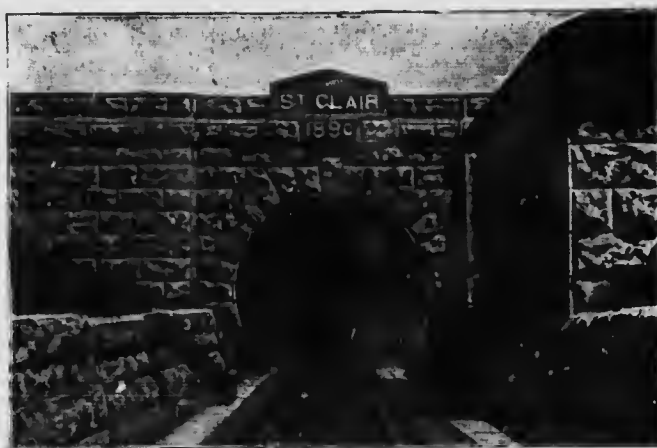
particularly from the Niagara and Lake Erie sections. Lumbering in the northern districts is carried on in all its branches, and employs many hands in turning white pine and spruce into lumber and pulp-wood. Manufacturing comes third in importance. In nearly all the towns of southern Ontario manufactures of vari-

ous kinds are found, favored as they are with numerous lines of railway. Among them, machinery, cotton and woolen goods, furniture, organs and pianos, clothing goods, boots and shoes, pork, tobacco, vegetable-pulp, and paper may be mentioned. Mining is rapidly becoming a great industry, petroleum, nickel and copper being the most important minerals. Petroleum and natural gas are found in the Lake Erie section, and salt is abundant in Huron and Lambton counties. Silver is found near Thunder Bay,

copper and nickel at Sudbury, gypsum along the Grand River, phosphate of lime north of the St. Lawrence, and iron ores in numerous places. In the Lake of the Woods and the Rainy River



Steel Arch Bridge across the Niagara.



St. Clair Tunnel, through which the Grand Trunk Railway passes under the St. Clair River.



rich deposits of gold have been discovered. The oldest mines are in Hastings County. The mines are equal in value to those of the West and employ over 3,000 men on the gold waters.

Cities and Towns.

Ontario has 15 cities, 10 large towns, and 10 small towns. The largest city and port, Toronto, next to Montreal is wealthier than any other. It has a capacious sheltered harbor, wide streets, handsome buildings, and a large amount of manufacturing industry. It is surrounded by a rich agricultural country and has a network of waterways connecting to all parts of Canada and the United States. The population is about 10,000. *Ottawa*, the federal capital of Canada, has a magnificent water power which is employed in the large saw mills, flour mills,



Canal at Sault Ste. Marie.

woollen mills, and cement mills. The Parliament Buildings cost about five million dollars, and overlook the Ottawa River. Population about 60,000. *Hamilton*, on Burlington Bay, has a very fine situation and ranks as the third city of the province. It has a smelting furnace, a large cotton mill, and a variety of manufactures. Population over 50,000. *London*, the largest place in the western peninsula, is a chief distributing point, contains petroleum refineries



City Hall, Toronto.

and numerous factories, and has a population of about 38,000. *Kinston*, the oldest city in the province, is at the head of the St. Lawrence, where new grain is transhipped to barges. Locomotives and cars are the chief manufactures. *Brantford*, *Stratford*, *St. Catharines*, *Windsor*, *St. Thomas*, *Guelph*, *Niagara Falls*, *Bellerbelle*, *Chatham*, and *Peterborough* are smaller cities flourishing in rich districts, and are growing very rapidly. The largest towns in Ontario are *Berlin*, *Brockville*, *Owen Sound*, *Woodstock*, *Cornwall*, *Galt*, *Lindsay*, and *Sarnia*, and most of them have factories and a large local trade. *Kenora*, *Collingwood*, *Barrie*, *Pembroke*, *Cobourg*, *Petrolia*, *Ingersoll*, *Orillia*, *West Toronto*, and *Sault Ste. Marie* have from 5,000 to 6,000 people and are growing rapidly into great centres of industry.

Sketch North America; show Carleton Place and locate its principal highlands. What province is filled with mountains and plateaus? What provinces are chiefly prairie? Draw a curved line to show the direction of the Height of Land. Name the provinces through which this highland passes. Find the Cobequid Mountains.



Oil Well at Petrolia.

THE PRAIRIE REGION.

MANITOBA.

What province lies east of Manitoba? What district is on the north? What province is on the west? What country lies south of Manitoba? Name the largest lakes. What rivers empty into Lake Winnipeg? What is its outlet to Hudson Bay? Make a map of Manitoba on a larger scale. Put on the map the rivers, railways, and chief towns. Mark these places: -Winnipeg, Portage la Prairie, Brandon, Emerson, Rapid City, Selkirk, Carberry, Minnedosa, Morris, Morden, Neepawa, Carman, Virden, and Souris. Find the boundaries of Manitoba. Look at the direction of the rivers, and then point out the lowest side and the highest side of Manitoba.

This is the first of the provinces laid out in regular form, and occupies a square of which the side is about 270 miles.

Find the States and Provinces bordering this province. The western boundary is formed by the meridian $101^{\circ} 30'$; the northern by the 53rd parallel of latitude.

Find the southern and eastern boundaries. Manitoba lies in the middle of the Dominion and is near the centre of North America.

Physical Features.

The northeastern corner as far as Lake Winnipeg belongs to the Laurentian plateau and contains more or less forest, but the rest of the province is part of the great plain which stretches to the Rocky Mountains. This

plain is lowest near Winnipeg and the Red River valley and steadily rises westward. About Lakes Winnipeg and Manitoba the elevation is only 700 feet above sea level, but near the Rocky Mountains the elevation is from 3,000

to 4,000 feet. There are two distinct rises on the way westward, dividing the plain into three levels or steppes. The first is marked by a range of hills running northwest near Carberry and forming the western limit of the Red River country. The second ridge passes northwest near Moose Jaw and forms the edge of the third

steppe which slopes upward to the foot of the mountains. The south of Manitoba is higher than the north, and the plain slopes northward about a foot in the mile. At the south the plain drained by Red River is only about fifty miles wide but expands to



Legislative Buildings, Winnipeg.

over 200 miles at the north.

The principal rivers are Red River and Assiniboine, both navigable for long distances. The lakes cover more than 9,000 square miles; Lake Winnipeg, 250 miles long, receives the waters of the Saskatchewan, Red, and Winnipeg Rivers and is drained by the Nelson

River into Hudson Bay. The other large lakes are Winnipegosis and Manitoba; smaller ones are Dauphin and St. Martin. All these lakes and a multitude of smaller ones teem with delicious fish and supply a source of wealth to the settlers.



Harvesting in Manitoba

Products and Industries.

The soil is nearly all fertile and easily worked, and the climate is such that wheat comes to the greatest perfection. The winters

are clear, cold, and dry with light snowfall. Occasionally the temperature drops to 30° or 40° below zero, but on the whole the winter months are very pleasant. Spring comes early

Trace on the map the river system of Manitoba. Trace on the map the railway system. Locate the cities and towns mentioned in the text. Trace on the map the various routes by which grain and cattle may be sent from the North-West to Europe. What advantage to the North-West would be gained by the building of a railway from Winnipeg to Hudson Bay?



City of Winnipeg, Man.

in March, and the summer has hot days, cool nights, and just sufficient rainfall for crops of wheat, oats, barley, potatoes, hay, flax, and hemp.

The great occupation is agriculture. The raising of horses and cattle and the production of butter and cheese are also carried on.

Nearly all manufactured articles are imported. Grain is the chief article of export, and in 1907 the crop amounted to 40 million bushels of wheat and 42 million bushels of oats.

Chief Towns.

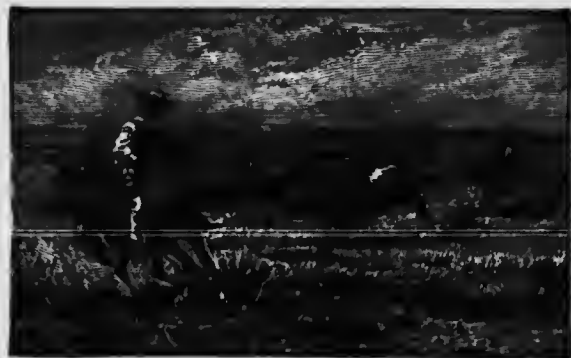
WINNIPEG has grown up rapidly since 1871, when it had but 241 inhabitants. In 1906, the population amounted to 90,204. It is the commercial metropolis of the North-West, the great railway centre and chief distributing point, and has many handsome buildings. Brandon and Portage la Prairie are typical towns in the midst of fine farming districts and are growing at a surprising rate. Selkirk, St. Boniface, and Morden are similar to many other smaller places where grain is shipped and imported goods are distributed.

SASKATCHEWAN AND ALBERTA.

Which provinces border on Manitoba? Which border on Saskatchewan? Between what provinces does Alberta lie? Draw a map of these two provinces on a large scale. Mark on your map the following rivers:—North and South Saskatchewan, and the Saskatchewan, the Athabasca, McLeod, Pembina, Bow, Red Deer, Battle, and Beaver. Mark also the Canadian Pacific Railway and insert the names of the leading towns along the line. Where are the

Smoky River Pass, Mount Brown, Athabasca Pass, Mount Hooker, Mount Hood, the Porcupine Hills, and the Crow's Nest Pass?

These two provinces extend west of Manitoba to the mountains and have much the same general character of surface. They form the basin of the Saskatchewan, which has two large branches and over 1,000 miles of navigable water reaching to the foothills of the mountains toward which the whole plain rises, as already explained. The eastern parts of Saskatchewan have the



White Herdsmen called Cowboys.



Loading Cattle Cars.

climate and products of Manitoba, but the western portion of Saskatchewan and the whole of Alberta, have a much smaller rainfall and present a very dry appearance. The cold of winter is often moderated by the west winds which, in descending from the mountains, give out much heat. These are known as chinook winds. Toward Manitoba

grain-raising is the chief occupation, but in the south and west cattle-raising on large ranches is the principal industry. The central and northern parts of Alberta, however, also produce grain, and mixed farming prevails.

The principal towns of Saskatchewan are REGINA, the capital, *Prince Albert*, *Moose Jaw*, *Moosomin*, and *Battleford*; of Alberta, EDMONTON, the capital, *Calgary*, *Lethbridge*, *Medicine Hat*, *McLeod*, and *Wetaskiwin*.

Coal is found in large quantities throughout Alberta, and mines are worked at Lethbridge, Canmore, Anthracite, Edmonton, and Estevan. In south-



Mounted Police.

ern Alberta extensive irrigation works are employed to water the dry plains from the mountain streams, with great success.

THE NORTHERN TERRITORIES.

YUKON AND THE NORTH-WEST TERRITORY.

Trace out the boundaries of each territory on the map, page 38. What territory borders on Hudson Bay? Where are the Nelson, Churchill, Great Whale, Great Fish, Albany, East Main and Big rivers? What are the largest lakes and rivers of the North-West Territory? Name a few of the islands and straits in the North-West Territory. Name some of the islands in Hudson Bay. Where are Port Nelson and Port Churchill?

These vast territories are only partially explored, but the first is important.

It is a country of rolling hills, mountain ranges and navigable rivers. Lying so far north, the summer season is short and the climate is subject to extremes of heat and cold. Garden vegetables grow to a large size at Dawson. The great value of Yukon lies in the minerals, principally gold, which is

found in great quantities. Copper, iron, and coal are also found there.

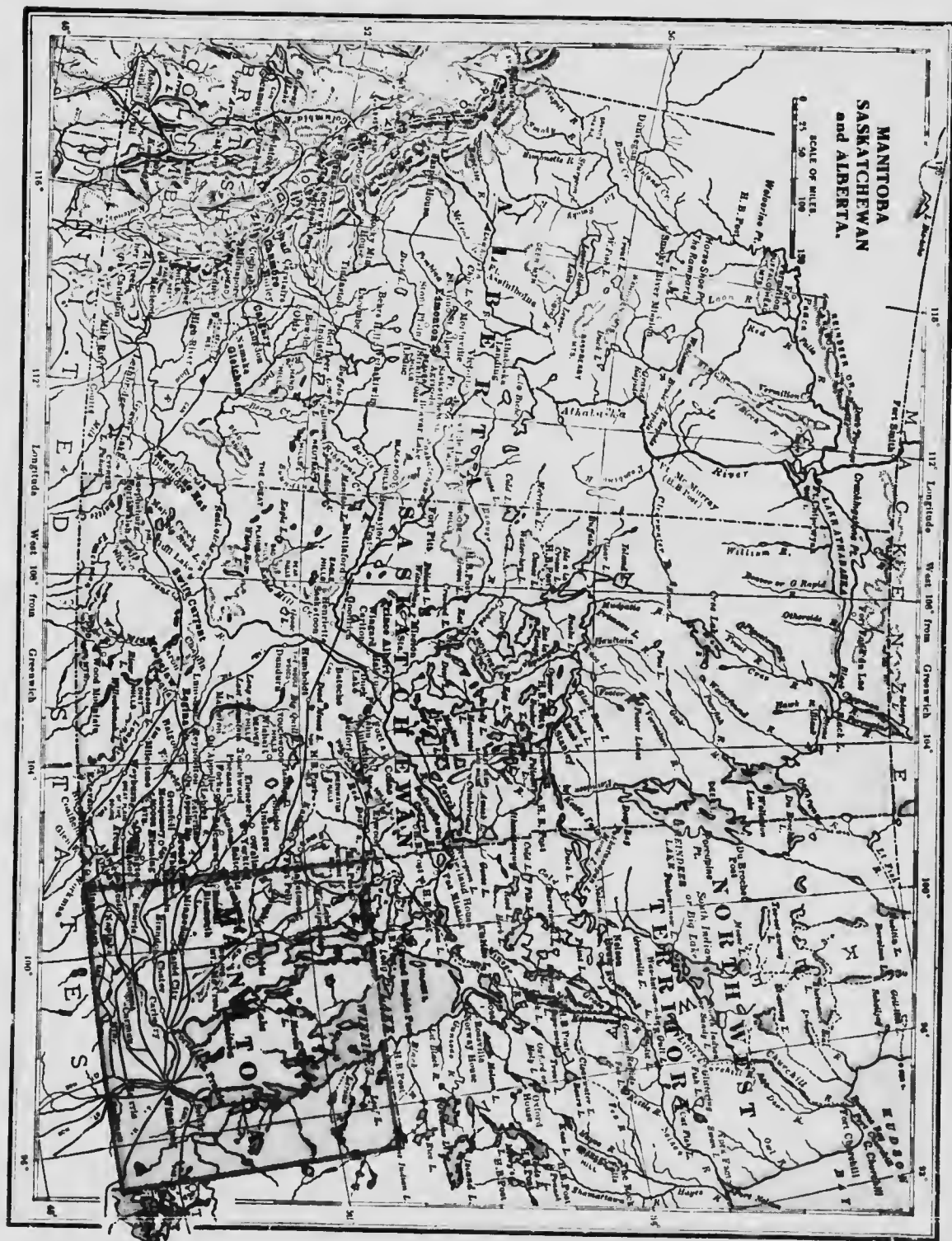
Down the western part of the North-West Territory flows the Mackenzie River. It drains three great lakes, namely, Athabasca, Great Slave, and Great Bear which lie on the east side of the valley on the borders of the Laurentian plateau. The river valley is well wooded and contains much good land. East of these great lakes lies a treeless district which occupies the whole of the country northwest of Hudson Bay, and is often called "The Barren Lands." It is full of lakes and streams that teem with fish and is the home of the caribou, the moose, the musk ox, and countless flocks of water fowl.

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The land portion of the North-West Territory is comparatively unknown, but in the interior of the Labrador Peninsula rich ores of copper have been discovered quite recently.

Trace on the map the boundaries of all the territories.

Trace on the map the courses of all the rivers. Point out the large lakes. Give some account of the history of the "North-West." Describe the "Valley of the Mackenzie." Describe the grazing districts which lie near the Rocky Mountains. Describe the Peace River District. What are "cattle ranches?" Describe the Governments of the territories. Point out on the map the various mineral regions of the territories.

THE MOUNTAIN REGION.



Victoria, B.C.

BRITISH COLUMBIA.

In what direction do the rivers of British Columbia flow? Why? Name three of the largest rivers. Are there any lakes? Name them. Draw a map and locate on it the chief rivers and the leading cities and towns. What mountain range separates British Columbia from Alberta? Name some of the highest peaks in this range. Name the mountain passes in the Rockies. What other mountain ranges are in the province? What large island forms part of the province? How is it separated from the mainland of the province? How from the United States? What other islands lie along the Pacific Coast?

Physical Features.

This is the largest province in Canada, and measures 900 miles long by 425 miles broad. It reaches from the 49th to the 60th parallel of latitude, and from the Rocky Mountains to the Pacific. It is a country of mountains which in the southern part extend over 400 miles in width and are composed of parallel ranges

with long valleys between. The Rocky Mountains are about 60 miles wide at the south and 20 miles towards the north of the province and some of their peaks reach more than 10,000 feet in height. The coast range is about 100 miles wide and has summits 7,000 to 9,000 feet high. The country lying between these two ranges is called the Interior plateau and includes several parallel ranges, such as the Selkirk, Purcell, Columbia, and Cariboo Mountains. This district

is about 100 miles wide and 600 miles long, and has a general elevation of 3,500 feet. Along the coast lies a chain of continental islands with mountain peaks from 4,000 to 7,000 feet high, and the mainland is indented with long, deep bays bordered by lofty, rugged mountain walls often backed by glaciers and snow-fields towards the north.

The Columbia and the Fraser, the largest rivers flowing southward, have very crooked courses. The Naas,



Salmon Fishing, Columbia River.

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the Skeena, and the Stikine empty into the Pacific, and the Land and its tributaries drain into the Mackenzie, while the upper waters of the Yukon go north-west through Yukon territory. In most of the river basins here are long stretches of the agricultural and pastoral lands, and in the south some of these valleys produce mel-

ons, grapes, and Indian corn, which do not come to perfection elsewhere in the province.

Mining is the great industry, especially gold mining, and in 1899 the value of the output was over ten million dollars. Vancouver Island and the Crow's Nest Pass produce great quantities of excellent coal.

The thousands of inland lakes and streams are full of the finest fish, and the salmon fisheries of the coast are the richest in the world.

The Douglas fir grows from 200 to 300 feet high and 8 or 10 feet thick, and lumbering is carried on extensively.

Chief Cities and Towns.

VICTORIA, the capital, a place of great natural beauty on the southeast of Vancouver, has fine buildings and a population of about 25,000. It has a large ocean and coast trade. Vancouver, on Burrard Inlet, has a population of 60,000. It



is the terminus of the C. P. R. and of the Pacific steamship lines, and is commercially important. *Rosland* 5,000, *New Westminster* 6,498, and *Nanaimo* 6,130 population are rising places. Many mining centres are rapidly growing into new towns, especially in the southern part.



Washing Gold on the Klondike.

Point out on the map the mountains and passes of B. C. Trace the courses of the rivers and point out the inlets and islands. Trace on the map the ship-passage along the coast. Account for the peculiarities of the climate of British Columbia. Give an account of the natural products of the province. Point out on the map the gold districts. How is gold obtained? Point out the coal and iron districts. Tell what you know of the coast Indians. Trace on the map the course of the Canadian Pacific Railway.

Yukon lies west of the North-West Territory and has become celebrated over the world for its famous gold mines that have attracted thousands of pioneers. The output has reached between twenty and thirty millions a year taken from the creeks flowing into the Yukon River. Timber sufficient for fuel and mining is plentiful. The summer heat is remarkable for such a high latitude, but the winter climate has Arctic severity, and the ground is frozen deep.

NEWFOUNDLAND.

This large island is the only part of British America that is not included in the Dominion, and is more than one-third larger than Ireland. from which it is only 1,700 miles distant. It forms the eastern barrier of the Gulf of St. Lawrence, and is separated from Labrador by only twelve miles of shallow water at the Strait of Belle Isle. It measures about 325 by 310 miles. The western side is the higher, and

the general slope is towards the northeast and east. The interior is imperfectly explored, but contains some wooded land, some stretches of

"barrens," and considerable areas of pasture and arable land. The surface is varied with many streams, lakes, and marshes. The coast line is extremely irregular, and includes the northern peninsula and also those of Avalon and Burin in the south, while



Catching Codfish.

round the coast are countless harbors and coves. The climate of the west and north is rather harsh, but on the northeast and south at some distance from the sea wheat, barley, oats, and potatoes can be grown. Large quantities of ice are brought down by the Arctic current, and a little southeast from Newfoundland these meet the warm Gulf Stream from the tropics. Thus are produced dense and frequent fogs over the coasts and adjoining waters. They do not, however, extend far inland.

The mineral resources of Newfoundland are very great. Rich mines of copper have been opened up at Tilt Cove and at Betts Cove on the northeast shore. The ore is shipped to England to be smelted. The great iron and steel works at Sydney, N.S., get their supplies of metal from an island in Conception Bay, near St. John's.

Coal, lead, nickel, and other valuable minerals exist, but are not mined to any extent. The fisheries of cod, seal, and lobster constitute the chief industry and employ most of the

population. The cod fisheries on the Banks south of the island are the best in the world, and salmon, lobsters, seals, whales, porpoises, and herring abound in the neighboring waters.

St. John's, 20,000, is the commercial centre and the chief port of the island. A narrow, deep entrance leads to the well-sheltered harbor, which contains one of the best graving-docks in America. There are tanneries and breweries, as well as furniture, biscuit, and shoe factories. The only railroad starts from St. John's, and makes a circuit of the island, 548 miles.

Harbor Grace, 7,000, is the second town, eighty-four miles from

St. John's. It is an important trade centre, but the harbor is rather exposed. *Carbonear*, *Twillingate*, and *Bonaville* are the largest towns. *Port-aux-Basques*, the western terminus of the railway, is only sixty-five miles distant from North Sydney, Cape Breton, where the Intercolonial ends. *Heart's Content*, on Trinity Bay, is the landing place of six Atlantic cables.



St. John's Harbor, Nfld.

AREA AND POPULATION OF THE DOMINION OF CANADA.



A pack train loaded for a mining camp.

PROVINCES.	Area in sq. miles	Population (1901).	CAPITAL.	Population (1901).
Ontario	260,000	2,182,947	Toronto	208,041
Quebec	351,000	1,648,898	Quebec	68,840
New Brunswick ..	28,000	331,120	Fredericton ...	7,117
Nova Scotia	21,000	459,774	Halifax	40,832
P. E. Island	2,000	103,259	Charlottetown.	12,080
		(1906)		(1906)
Manitoba	74,000	365,888	Winnipeg	90,204
Saskatchewan	250,000	277,763	Regina	6,169
Alberta	255,000	190,000	Edmonton	13,500
Brit. Columbia ..	372,000	178,657	Victoria	25,000
Territories	2,159,811	52,709		
			North-West Territory	1,933,711 square miles.
			Yukon Territory	196,100 " "

UNITED STATES.

What peninsula in Canada just northeast of the United States? What peninsula in the southeastern part of the United States? What plain extends between these two peninsulas? In what country does this plain lie?

Position and Coast Line.

The United States was settled by hardy, enterprising people, has a great deal of fertile land, a favorable position, and has become a very flourishing country. It

reaches so far north and south that it has several different climates and contains between seventy and eighty millions of people. Its *foreign*

commerce is aided by its situation and by the many fine harbors on the eastern coast. There are some on the south also, but very few on the west coast.

Relief.

The Pacific Coast rises abruptly from the sea, but the Atlantic Coast slopes a long way to the foot of the Appalachian range. For some distance east of the Rocky Mountains the central plain is highland, but the east half of the country is mostly lowland.

The central plain slopes gently on either side towards the Mississippi and also southward towards the Gulf of

Mexico. This great central plain contains many smaller hills and valleys, and has forests in the north, the east, and the south, but the western part consists chiefly of open grassy plains or prairies, with few or no trees.

Enclosed by two mountain chains is the western plateau or highland. (Give the names of these mountains. What two States lie between them?)

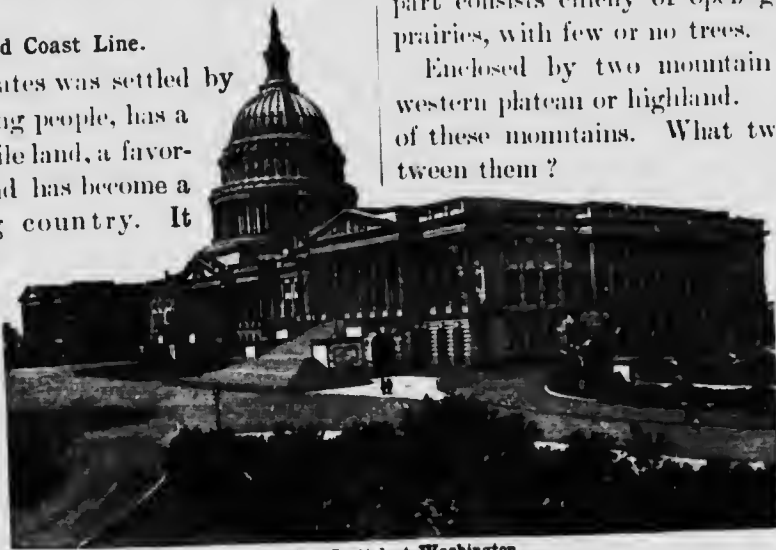
Drainage.

The internal trade of the country is carried on conveniently along the sea coasts and across the great lakes. In the central plain are deep

and broad rivers that supply many thousands of miles of navigable waters. In the northeast many rivers have their sources west of the Appalachian range and make their way through the mountains by narrow gorges or water-gaps cut out by running water. Many of these gaps are very useful indeed, for it is easy to make railroads and canals by such routes.

At the mouth of the Hudson has grown up New York, the largest city in America.

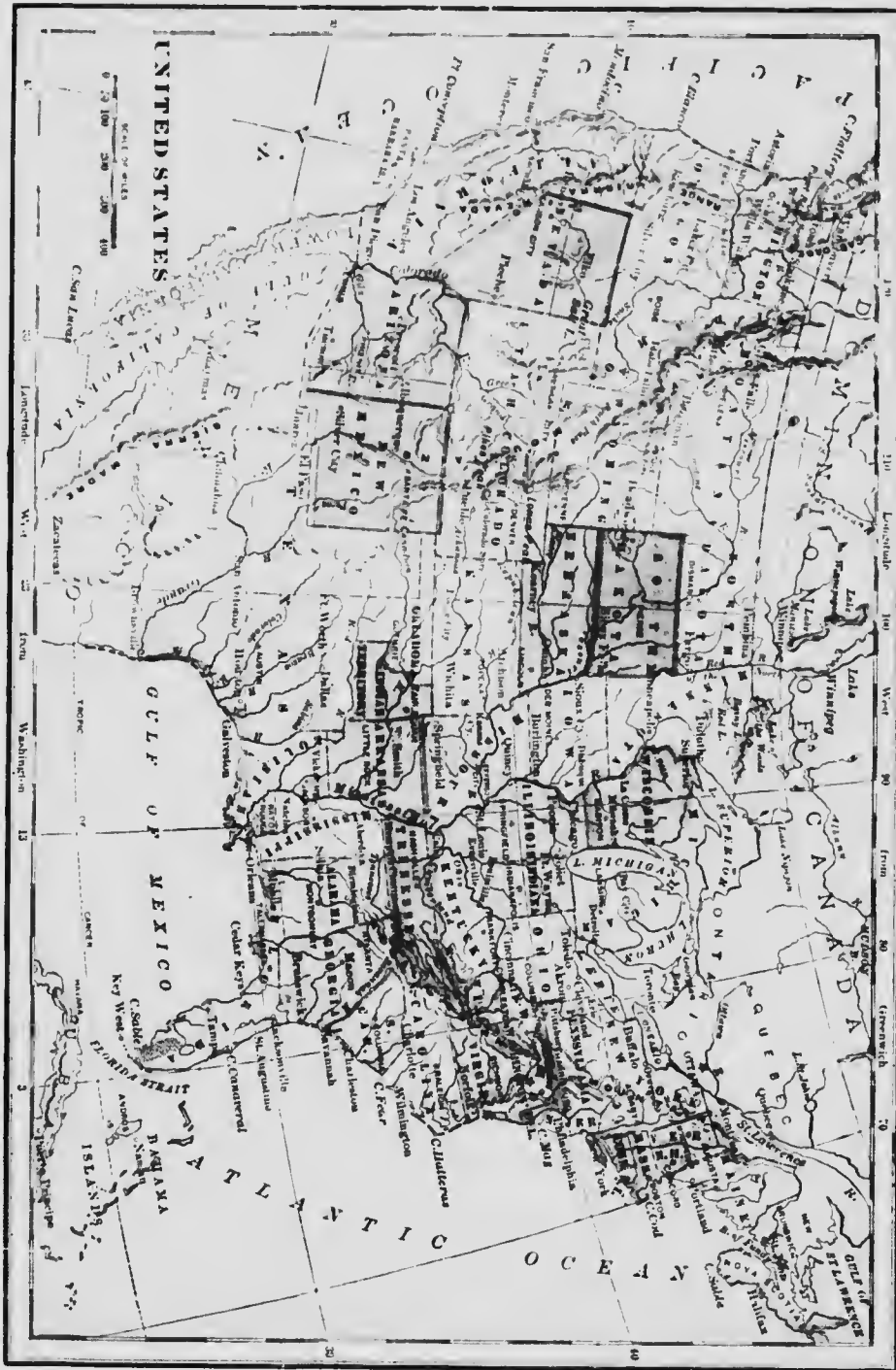
From the Rocky Mountains to the Pacific Coast, the Colorado flows into the Gulf of California. It is fed by the melting



The Capitol at Washington.



Lock, St. Mary's Falls Canal.



Name three western branches of the Mississippi. What states does each cross or border? What is the eastern branch of the Mississippi? Follow the course of a steamboat from New Orleans to Nashville, in Tennessee. From New Orleans to Chattanooga, also in Tennessee. What are the two southern branches of the Ohio? Through what states do they flow? Name the five Great Lakes. Name the states that border on those lakes. What great river drains these lakes? Name two short rivers that

empty into the Gulf of Mexico? What river flows northward into Lake Winnipeg? Where do these waters finally go? Point out the Savannah river, the Columbia, the Colorado, and the Rio Grande. Name the states that are crossed by the Appalachian mountains. Name those crossed by the Rocky Mountains. What states border on the Atlantic? Name those on the Pacific coast, and those along the Gulf of Mexico. Name the states that border on Mexico and those that border on Canada.

snow on the mountains and has a deep, narrow gorge or canyon, with steep sides and many falls and rapids, but the Columbia is navigable both above and below the rapids, where it cuts its way through the Cascade Mountains. What is the large branch of the Columbia? South of Snake River to the Colorado between the Wasatch Mountains and the Sierra Nevada lies



East River, New York, and Brooklyn Bridge.

a high plateau called the Great Basin. None of the streams of this region go to the sea.

Name the largest lake. What city is near it? Sketch a map of the United States, show the Mississippi, the Missouri, the Ohio, the St. Lawrence, the Columbia, and the Colorado Rivers.

Heat and Rainfall.

Most of the winds that blow over the United States and Southern Canada come from the west, southwest, and south. The western winds cross the Cascade Mountains and the Sierra Nevada, and are cooled so much that most of their moisture falls on the western slopes of these ranges. Beyond this they sweep over the western highlands as dry winds, and thus much of that region is so dry that few trees or food plants will grow, and these arid districts are partly desert. The eastern half of the United States is well watered and makes one of the best farming regions in the world.

Much rain falls along the gulf coast, but the northern part of the Mississippi valley has less rain and crops are less certain.

Sections of the United States.

We can study this country in five great sections or divisions.

(1) **THE NORTHERN SECTION**, which includes twenty food-producing States.

Find New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, West Virginia, Ohio, Kentucky, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota and North Dakota.

(2) **THE NORTHEASTERN SECTION**, which includes six manufacturing States.

Find Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

(3) **THE SOUTHERN SECTION** grows cotton and contains ten States and two Territories.

Find North Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Texas, Indian Territory and Oklahoma Territory.

(4) **THE WESTERN PLATEAU SECTION**, made up of six States and two Territories.

Find Montana, Idaho, Wyoming, Colorado, Utah, Nevada, Arizona Territory and New Mexico Territory.

(5) **THE PACIFIC SECTION**, the western farming and fruit section.

Find Washington, Oregon, and California. Alaska is far to the north.

The United States has the greatest railway system in the world and several lines reach across the continent. In the east and north almost every



Winter in the North.



Winter in the South.



which has its railway. On the south and west there are many lines, but fewer than in the north. All these roads help to transport products to the places where they are wanted.

The Northern Section—The most important product of this section is grain, of which wheat is the most valuable, and grows best north of the Ohio and the Missouri. Corn grows well in all the States and also in the southern and eastern sections. Cattle, hogs, and sheep are raised in great numbers, and the east parts produce butter, cheese, and small fruits in abundance.

New Jersey, Delaware, Maryland, and Virginia have market gardens that supply the great cities of the east. From the bays on the coast of these States oysters are sent all over the north and also to Canada. The iron and



Blast Furnace.

coal mines are equal to the best in the world, and this section contains many large and flourishing cities.

Chicago is the second city of America next to New York, and the greatest railway centre in the world.

Find Cleveland and Buffalo.

Cincinnati is the largest city in the Ohio basin and St. Louis is a large city near the middle of the Mississippi valley. Louisville in Kentucky and Richmond in Virginia are important trade centres. Pittsburg

deals largely in coal and iron; Philadelphia manufactures locomotives, steel ships, and machinery, but the greatest iron and steel works are at Pittsburg and Chicago.

Petroleum is found in Pennsylvania chiefly, but also in Ohio, Indiana, and West Virginia. Natural gas is also obtained in this region. Pork and beef are



Gathering Oysters, Chesapeake Bay.

packed in immense quantities at Kansas City and Chicago. Clothing, books, and newspapers are produced largely at New York, Chicago, and Philadelphia. The latter is also a seaport and great coal market. Washington is the national capital, and Baltimore is the central depôt for the oyster fisheries.

New York is built partly on Manhattan Island and has a fine harbor. Next to London it is the second city in the world, and is composed of five boroughs of which Brooklyn is the chief. Most of the foreign trade of the country passes through this port.

The Northeastern Section.—The six States are often called New England. The summers are

moderately cool, but the snow fall is heavy in winter. Much of the country is rough and rocky, and the river valleys contain almost the only good farming land. There are extensive forests in the north; the southern part forms a portion of the great manufacturing region of the country. The rapid streams afford abundant water power near the coast, and there are many good harbors where sea-going ships bring the trade of the world.



Commonwealth Avenue, Boston.

Boston, the largest city, has many factories and a great fish market, and is the centre of the wool trade. Near by is Cambridge, which like Boston is an important literary place.

Cotton, woollen, and shoe factories; clocks, watches, bicycles, firearms, hardware, sewing machines, paper pulp—these belong to the industries of New England. Boston and Portland are the seaports for large vessels.

Each pupil may take one of the following cities, find out all he can about it, and then recite before the class in turn: 1. New York, 2. Chicago, 3. Philadelphia, 4. St. Louis, 5. Boston, 6. Baltimore, 7. Cincinnati, 8. Cleveland, 9. Buffalo, 10. Pittsburg, 11. Washington, 12. St. Paul.

The Southern Section.—In all this section the summers are long, the winters short, and snow seldom lies on the ground. The cities are not so

numerous as in the north; most of the people live on farms or plantations and their most important crop is cotton. This is the fluffy fibre that grows round the seed of a bush three or four feet high. The seed-pods ripen and burst and then the cotton hangs from them in white balls. Besides cotton, these States produce corn, sugar, rice, and tobacco. Early in the season they send to the northern cities fruit and spring vegetables. The coast plain contains some large tracts of forest, chiefly southern pine, which yields valuable lumber and a great deal of turpentine and resin. There are cotton factories in many places, especially in North Carolina, South Carolina, and Georgia. North Carolina manufactures tobacco, Alabama and Tennessee mine iron ore in the mountains and produce much iron.



Cotton Plant.

Find Birmingham and Chattanooga, where there are extensive rolling mills. Coal is abundant in the south. Find New Orleans, the great cotton market and the largest city of the south. It enjoys a large trade down the



Cutting Sugar-Cane, Louisiana.

Mississippi, and exports cotton, rice, and sugar. Mobile and Galveston are great cotton markets, and Memphis is a large river port. Wilmington deals in lumber, turpentine, and cotton; Savannah and Charleston in cotton and rice. Florida is a sandy peninsula with many lakes and swamps, and sends oranges, lemons, and vegetables to the north. Find St. Augustine and Jacksonville. Many invalids go there to spend the winter. Texas is the largest of all the States and raises much cotton, some wheat, and vast herds of cattle.

Find Dallas. What river divides Texas from Mexico?

The South has a wonderful variety of scenery—forests in the Atlantic and Gulf States, prairies in Texas, orange groves in Florida, cypress swamps in Arkansas, Mississippi, and Louisiana, the flood plain of the Mississippi, and the mountains of Tennessee and Georgia.

Find on the map about these cities and tell it to the class: 1. New Orleans, 2. Nashville, 3. Atlanta, 4. Memphis, 5. Charleston, 6. Savannah, 7. Dallas, 8. Mobile, 9. Chattanooga, 10. Jackson, 11. Birmingham, 12. Augusta.



Rice Fields.



Picking Cotton, Mississippi.

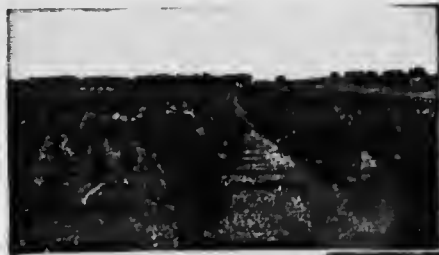
The Plateau Section.—These States occupy a vast plateau over a mile above the sea-level, from which the mountains rise nearly two miles higher. This dry plateau region is so high that the climate is healthful; but its summers are very hot and its winters quite cold, except in Arizona and New Mexico. By means of irrigation-ditches the water is led over the land, and thus crops of grain, hay, and fruit are grown although there is little or no rain to water them in the usual way. The mountainous regions in all these States produce a great deal of gold, silver, and copper. Mining is the most important industry, and mining cities have sprung up in these regions. Nevada, Colorado, and Montana produce immense quantities of silver, and the latter also furnishes very large amounts of copper.

Leadville is in a rich silver-mining district. Butte is the great copper-mining centre; but the largest city is Denver. Pueblo is a manufacturing and railroad centre. The smelting and reduction of ore is a leading

industry in all these cities. The Yellowstone National Park is famous for its scenery and for the hot springs called geysers that spout high columns of steam and hot water at short intervals.

Salt Lake City is noted for the vast system of irrigation which has turned many miles of arid desert into a fertile country. The two southern States of this section are so hot and dry that large areas produce no vegetation but sage-brush and cactuses.

The Pacific Section.—These three States are very fertile and are the great food-producing region of the west. The eastern parts however,



Vineyard, California.

reach into the dry plateau region, but most of the western portions receive sufficient rain for farming and in the south irrigation is extensive. The westerly winds modify the heat of the Pacific coast so that there is not much difference in the seasons, except that most of the rain falls in the winter, while the summers are quite dry. The grain fields of this section lie chiefly west of the Cascade and Sierra Nevada ranges, but fruit comes to perfection in almost every part of the Pacific coast, and in southern California oranges, grapes, raisins, pears, and plums are the chief product. Much fine wool is produced and large herds of cattle are raised in the higher lands. Immense shoals of salmon ascend the Columbia and other northern rivers, and on the mountain slopes are extensive forests of Oregon pine, redwood, and

cedar. San Francisco is the largest city on the western coast and has a very fine harbor. Los Angeles is the chief market for fruit and wine. Ocean steamers ascend the Columbia and Willamette rivers as far as Portland.

Alaska was purchased by the United States from Russia. It consists of a large peninsula and a long chain of islands chiefly valuable for their seals, codfish, and salmon. Rich gold mines have been discovered along the Yukon River. The climate of northern Alaska is one of extreme cold, but in the south it is milder than that of the same latitude on the Atlantic coast. This is due to



Totem Poles, Alaska.



Raisin Making, California.



Irrigating an Orchard in the Arid Lands.

the warm, moist winds of the Pacific which blow over its shores. The seal fisheries are the most noted in the world. Most of the natives of the southwest coast are Indians. SITKA is the capital and most important town.

Find out all you can about the following cities and write a short paragraph about each: 1. San Francisco, 2. Denver, 3. Los Angeles, 4. Portland, 5. Salt Lake City, 6. Seattle. Read your composition aloud to the class.

POPULATION OF IMPORTANT CITIES IN THE UNITED STATES.

New York.....	3,437,000
Chicago.....	1,698,000
Philadelphia.....	1,293,000
St. Louis.....	575,000
Boston.....	560,000
Baltimore.....	508,000
Cleveland.....	381,000
Buffalo.....	352,000
San Francisco.....	342,000
Cincinnati.....	325,000
Pittsburg.....	321,000
New Orleans.....	287,000



Grant Elevator in Chicago.



A Whaleback Lake Steamer.

Detroit.....	285,000
Milwaukee.....	285,000
Washington.....	278,000
Newark.....	216,000
Jersey City.....	206,000
Louisville.....	204,000
Minneapolis.....	202,000
Providence.....	175,000
Indianapolis.....	169,000
St. Paul.....	163,000
Kansas City, Mo.....	163,000
Rochester.....	162,000
Denver.....	133,000
Toledo.....	131,000
Allegheny.....	130,000
Columbus.....	125,000
Worcester.....	118,000

New Haven.....	108,000
Syracuse.....	108,000
Patterson.....	105,000
Edi River.....	104,000
Omaha.....	102,000
Los Angeles.....	102,000
Memphis.....	102,000
St. Joseph.....	102,000
Scranton.....	102,000
Albany.....	94,000
Lowell.....	94,000
Cambridge.....	91,000
Portland, Ore.....	90,000
Atlanta.....	89,000
Grand Rapids.....	87,000
Richmond.....	85,000
Dayton.....	85,000
Little.....	80,000
Nashville.....	80,000
Hartford, Conn.....	79,000
Reading.....	78,000



Lumbering.

Mexico and Central America.

Name the country south of the United States. (See map on p. 27.) What waters east of Mexico? West and southwest? What peninsula in the west of Mexico? In the southeast? What river between the United States and Mexico? What language is spoken south of that river? What land southeast of Mexico?

North America begins to narrow rapidly at the northern part of Mexico, and becomes an isthmus in Central America. Where is Lake Nicaragua? A canal is planned to cross Central America. It is to pass through this lake, and is to be large enough for ships. As the country is rugged, this canal will be difficult to make. Why will it be useful when completed?

Is the surface of Mexico and Central America level or mountainous? Of what region in the United States do these countries form a continuation?

The coasts of these countries are low and level, but a little way from the shore the surface slopes rapidly upward to a high plateau or *table-land*. In what zones are these countries? The lowlands are hot, moist, and unhealthy; the highlands are not so hot, and are very dry.

The table-land is bordered with mountain ranges, so high that many of the peaks are always snow-covered. At times some of them pour out clouds of steam and streams of white-hot melted rock or *lava*. For months their tops may be hidden in clouds of steam, while at night the gleam of the hot lava is so bright that the mountains seem on fire. Such peaks are called

volcanoes; each is a sort of chimney through which steam and other gases, formed within the earth, may escape.

Farming, cattle raising, and mining are the chief occupations. In the hot lowlands are plantations of cotton, sugar cane, coffee, and tobacco, and groves of orange trees and bananas, and of tall, feathery palm trees.

Along the foot and sides of the table-land is a region of tangled forest where monkeys and humming birds are found. In the forests are mahogany trees, the vine bearing the vanilla bean, and the sarsaparilla plant.

Some of the plants of the table-land are like those which we see at home, for the weather, though usually quite dry, is much like that of the temperate zone. In the forests are oak and cedar trees, while corn, wheat, and beans grow on the farms. One of the most useful plants is the *maguey*. This is the same as

the "century plant" grown in gardens at home. From its sap a popular drink is prepared; its pulpy roots are used for food; and the fiber of one kind of maguey is used in making twine and coarse bagging.

But the chief wealth of the table-land comes from the silver mines and the herds of cattle and sheep. The Spaniards who first settled these states went there in search of gold and silver, and the mines of Mexico have produced silver ever since. Many cattle raised in Mexico are sent to the north, and much wool grown



Mexican volcano, and maguey plant.



Their houses are often wretched hovels.



Mexicans grinding corn and baking bread.

there is made into cloth in the mills of the United States. Much silver ore from the mines of Mexico is also sent to the United States to be smelted.

More Indians lived in this part of America than in the northern part, and they were not so savage. Many of the Spanish settlers married Indian women, and their children were half-breeds. Most of the people now are half-breeds and partly civilized Indians. The Spaniards and a few of the half-breeds own most of the land and are rich and powerful, but the Indians and most of the half-breeds are poor, ignorant, and wretched. They are the laborers on the farms and in the mines, and are little better off than slaves.

The people who work on the farms live in villages and towns. Their houses are often wretched hovels; a hole through the wall answers for a window, and the hard ground for a floor. The walls are built of straw, or of sun-dried brick called *adobe*, and the roofs are covered with tiles or with coarse grass.

Indian corn and beans are the food of most of the common people. The beans are cooked with red pepper pods. The corn is ground by hand between two pieces of stone, into a coarse meal. It is then made into a dough, and thin pieces are laid in a very hot clay oven to bake.

Following the example of the English colonists, the descendants of the Spanish settlers

freed themselves from the mother country. Mexico is a republic, and Central America contains several small republics.

What is the capital of Mexico? It is the largest city. What important seaport is on the Gulf of Mexico? What is the name of a seaport on the Pacific coast?

TOPICS ON SPANISH NORTH AMERICA.

- I. COUNTRIES. The larger. The smaller.
- II. SURFACE AND CLIMATE.
- III. PRODUCTIONS. Of the mines. Of the plantations. Of the forests. Cattle.
- IV. PEOPLE. Ancestors. Language. Food. Houses.

West Indies.

What group of islands southeast of North America? Name the four largest. What group north of Cuba forms part of the West Indies? What sea between the West Indies and South America? In what zone are most of the West Indies?

The West Indies are so cooled by ocean breezes that they are neither so hot nor so unhealthy as the lowlands of Central America; but at times they are visited by terrible windstorms, or *hurricanes*, which blow down buildings and sink ships.

The Bahamas are low, sandy islands surrounded by shallow waters, but the larger islands of the West Indies are the high and rugged tops of a range of mountains whose lower part is covered by the ocean.



Market scene, Mexico.

It was on one of the Bahama Islands that Columbus first landed; therefore the Spanish claimed the West Indies. They made slaves of the Indians and worked them to death, and then negro slaves were brought to the plantations. Now there are more negroes than white people in the islands, but they were all set free many years ago.

Cuba and Puerto Rico are controlled by the United States; Jamaica, Trinidad, the Bahamas, and most of the other islands belong to England; but Haiti is occupied by two independent negro republics. Many of the islands are surrounded by coral reefs. These are low rocks made by the coral animals, or *polyps*. They are found in many parts of the sea where the water is clear, warm, and not too deep.

The polyps live in great colonies and are attached to the bottom of the ocean. When they die their stony skeletons are left as a rocky mass, while other polyps grow, like buds on a branch, from the foundation thus left. In this way the rocky mass gradually grows upward to the surface of the water, where it forms a ragged reef of coral rock. By the aid of the sand piled up by the waves and the winds, reefs are sometimes built up above the surface of the water to form low coral islands. There are many such coral reefs and islands in the warmer parts of all the oceans. Some coral islands form a nearly complete ring, partly inclosing a portion of the sea. Such islands are called *atolls*.

In the shallow waters of the Bahamas, sponges are found. Tell some uses of sponge. The sponges which you all have seen are the skeletons of jellylike animals which fasten themselves to rocks and feed on what the waters bring them.

On the lowlands of the West Indies palm

trees grow; mahogany and a very hard wood, called *lignum vite*, of which tenpin balls are made, grow on the higher slopes.



Sugar mill in Cuba.

Sugar is largely produced in Cuba. It is made from the sugar cane, which looks much like a corn stalk, but has a sweeter sap. The cane is taken to mills, where the sap is squeezed out between heavy rollers. The sap is then boiled until it becomes brown sugar.

This "raw" sugar is sent mostly to the United States, where it is refined into white sugar.

Much of the finest tobacco also comes from the West Indies. Coffee, bananas and other tropical fruits grow in these islands. From the Bahamas pineapples and oranges are shipped to the eastern cities of America.

Where is Havana? This is the capital of Cuba, and is a great sugar and tobacco market.



Young palm trees,
West Indies.

TOPICS ON THE WEST INDIES.

- I. ISLANDS. Large. Group of small.
- II. CLIMATE.
- III. PRODUCTIONS. Sugar. Tobacco.
- IV. HISTORY AND GOVERNMENT.
- V. HAVANA.

REVIEW EXERCISES.

Climate.—In what zones is North America? In which zone is the main body of the United States? In which zones is Canada? In which is Mexico and the West Indies? In which zone is Central America? Why are the products of both the warm and the cool belts found in Mexico? Which is the most populous country of North America? In which part of Canada do most of the people live? Why? In which part of Mexico is the climate moderate? Why? In what region of Mexico do most of the people live? Why? Is the larger island group north or south of North America? Which group is more valuable? Why? Follow with your pencil the water connection between the Atlantic and Pacific oceans north of North America. What connection is being made by man between these oceans? Where? What bay extends into the north coast of North America? What great gulf on the south coast? Which is more frequented by vessels? Why? What are the four great rivers east of the Rocky Mountains? Which is most useful? Which is least useful? Why? What three river systems have large lakes? On which of these lakes are cities built? Why? On which are there no great cities? Why?

Position and Coast.—With what grand division does North America trade across the Atlantic Ocean? With what grand division does she trade across the Pacific Ocean? In which of these grand divisions are the people more advanced in civilization? To which are the Americans more closely related? How? Which ocean is the broader? On which coast of North America are there more gulfs and bays? On which coast are there more seaports? Give several reasons for this. Which grand division of the Eastern Hemisphere approaches the closer to North America? What strait between North America and Asia? Why is there not much trade across this strait?

Surface.—Where is the continental divide of North America? Into what two slopes does it divide North America? What region of North America is high? What region is low? What region is moist? Why? What region is dry? Why? Into which ocean do most of the rivers flow? Why? In which portion is agriculture a chief occupation? Why? What limits agriculture on the north? What is the great grazing region of North America? Why is it a grazing region? What is the chief wealth of the mountain region of the West? Why did people go to the Pacific coast of North America? What are at present the chief occupations in that region? Why? What are the high lands of eastern North America? What minerals do

they contain? What are the natural trade routes from the coast to the centre of the continent of North America? What is the great barrier to trade across the continent? How is this barrier crossed? Why is the Mississippi valley productive? What are the chief crops raised in its northern part? In the southern part? In what direction do the rivers of the Atlantic coast plain flow? Why? What are the products of this plain? What are the products of the St. Lawrence valley? What are the advantages of the upper part of the Mississippi valley for manufacture? What are the advantages of the coast plain for manufacture? What are the products of the western highland in the United States? In Mexico and Central America?

Products.—Sketch an outline of North America, and write in the proper places the names of the vegetable products found there. Forests: oak, pine, cedar, redwood, mahogany; grains: wheat, corn, rice; market vegetables; fruits: pears, oranges, grapes, bananas.

On another sketch write in the proper regions the names of the minerals found there: iron, coal, salt, copper, petroleum, natural gas, gold, and silver.

On another sketch write the names of the following products. Fibres: wool, cotton; animals: cattle, hogs, sheep; fish; tobacco; timber.

Cities.—Sketch an outline of North America, and write in the proper places the names of the great manufacturing cities, with the name of the chief manufacture of each. Write the names of the capitals and chief seaports in a similar map.

Governments. In what province do you live? What is its capital? Who is the governor? What is the capital of the United States? Who is the president? What is the government of the United States called? What is the government of Canada? The capital? What is the government of Mexico? Its capital? What is the form of government in the Central American States? What people lived in America when the white men discovered it? What people mostly settled the United States? What people settled Canada? What people settled in Mexico and Central America? In what regions do the Indians live now? Where do the Eskimos live? Name other races found now in North America. Where did each come from? Do the English-speaking or the Spanish-speaking people of North America occupy the larger territory? Which other country of North America is most like ours in manners and customs? Which most like ours in government? Are the English-speaking or the Spanish-speaking people of North America more progressive?

SOUTH AMERICA.

Location, Size, and Shape.

Turn to the map on p. 10. What direction is South America from North America? How are they connected?

Balboa, a Spanish follower of Columbus, crossed the Isthmus of Panama on foot and discovered the Pacific Ocean. People now cross the isthmus on a railroad which carries passengers and goods from one ocean to the other. Several attempts have been made to build a ship canal across the isthmus, but so far they have not been successful.

Vessels going around the southern part of South America are said to "round the Horn." Why? What large island is south of South America? What strait is north of Tierra del Fuego? This strait was named after the man who commanded the first expedition that sailed around the world.

When Magellan entered the strait in October, the signs of spring were just appearing. In what month does spring begin where you live? In what zone do you live? Explain why it is that in the Strait of Magellan spring begins in October.

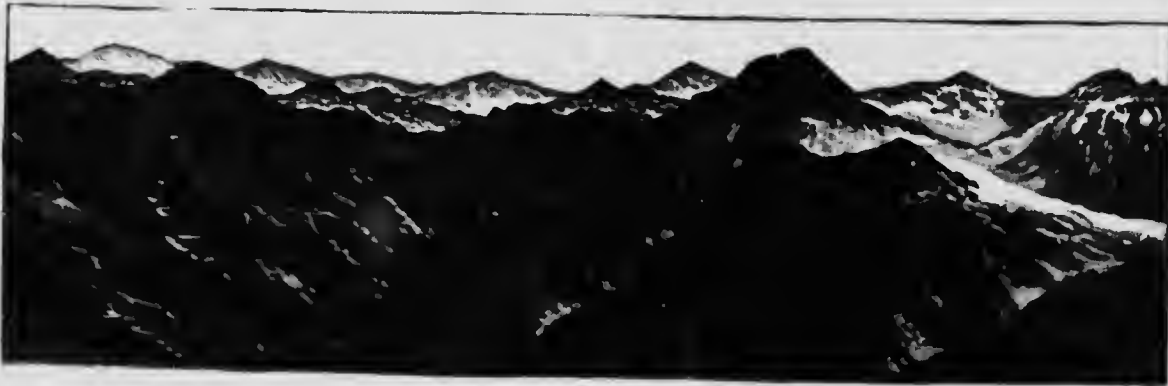
Compare this map of South America with that of North America on p. 24.



SOUTH AMERICA. (Same scale as maps of North America, Eurasia, Africa, and Australia.)

Here is a map of South America on the same scale as the maps of North America on pp. 24 and 27. What ocean is east of South America? What ocean is west? What sea is north of South America?

Which grand division is the larger? How does the greatest width of South America compare with its length?



An almost unbroken mountain wall.

What is the general shape of South America? Which side is longest? Which is shortest? What is the general direction of the Pacific coast line? Of the north Atlantic coast line? Of the south Atlantic coast line?

Which has the greater number of gulfs and bays, North America or South America? Where is the Gulf of Guayaquil? Lake Maracaibo is a gulf rather than a lake. The mouths of two rivers on the east side of South America widen out into bays. Name the rivers.

Near what part of South America are most of the islands? Find the Falkland Islands. Where is Trinidad Island? It contains a large lake of pitch or asphalt. Much of the asphalt used for our street pavements comes from this island. Just north of Trinidad is the island about which the story of Robinson Crusoe was written.



Sketch an outline of South America again and again until you can make a good outline in two minutes.

LOCATION, SIZE, AND SHAPE OF SOUTH AMERICA.

- I. LOCATION. Waters surrounding. Circles crossing.
- II. SIZE. Compare with North America. Breadth and length.
- III. SHAPE. General. Coast lines: names; description.

Relief.

How many mountain chains are comprised in the Rocky Mountain highland of North America? What are the names of these chains? They are broken by many mountain passes. What is a mountain pass?

South America has an almost unbroken mountain wall along its western border. What is its name? From what point and to what point does it extend? What is its general direction?

Where is the Andes highland broadest? Where is the Rocky Mountain highland broadest? Which of these two highlands is the broader? The broadest part of the Andes highland is called the plateau of Bolivia. Find it on the map. It is nearly twice as high as the much broader plateaus of the Rocky Mountain highland.

In the central part of the Andes highland there are two main ranges of mountains, one on the eastern and the other on the western border of the plateau of Bolivia. In the northern part of the grand division the highland divides into several ranges, while south of the plateau of Bolivia it has only one main range.

Although the Andes highland is not so

broad as the Rocky Mountain highland, its ranges are much higher. They are so high that even in the hot zone many of their peaks are covered with snow all the year.

Many of the Andean peaks are volcanoes, built up in part by the lava thrown out from their tops. At times the ground in these highlands shakes so violently that buildings



Llamas are a little larger than sheep.

are thrown down, and many people are killed. What are these shocks called?

The Andes have long been noted for mines of gold, silver, and copper; and the high slopes and plateaus afford pasturage for sheep, cattle, and several kinds of llamas.

Llamas are woolly animals a little larger than sheep. They are now found only in or near the Andes, though ages ago they lived also in North America. It is somewhat like the camel of the Eastern Continent in its power of endurance. Like the camel, the llama can live for several days without food or drink. Llamas are used to carry packs of merchandise in the Andes, and flocks of a smaller kind are kept for their fine long wool.

One of the largest of birds, the condor, is also found only in the region of the Andes. It stands higher than a table, and from tip to tip of its outstretched wings is twice as long

as a man. It prefers dead animals for food, but when hungry sometimes kills and eats a sheep or a deer.

From the Andes highland the country slopes east toward the Atlantic Ocean and west toward the Pacific. Which is the longer slope?

Do the highlands in the eastern part of South America look as high as the Andes? These eastern highlands are quite low and are traversed by low mountain ranges. What is the name of the small northeastern highland? Of the larger southeastern highland?

Is the surface of South America between these highland borders level or mountainous? Compare it with the great central plain of North America. Each is a broad lowland plain with high mountains on the west and low ranges on the east.

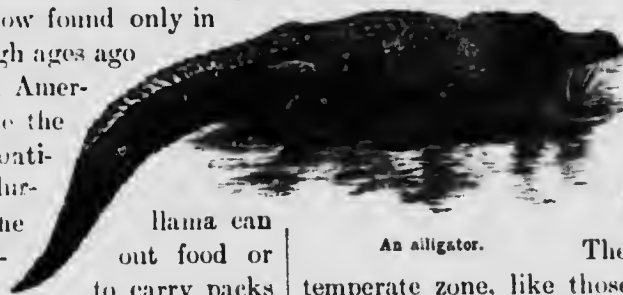
Model South America, showing the Andes, the plateaus of Brazil and Guiana, and the central plain.

RELIEF OF SOUTH AMERICA.

- I. **ANDES HIGHLAND.** Compared with Rocky Mountain highland: in position; in direction. Describe: length; height; passes; peaks. Plateau of Bolivia.
- II. **ATLANTIC SLOPE.** Extent. Where it is broken by mountains.
- III. **PACIFIC SLOPE.**

Drainage.

In what zone is most of North America? From what direction do the winds generally blow in the north temperate zone?



An alligator.

The winds of the south temperate zone, like those of the north temperate zone, blow generally from the west. From what waters, then, do the rain clouds of the southern part of South America come? On which side of the southern Andes is there most rainfall? Why? Why is there so little rainfall on the east side?

The winds of the torrid zone blow generally from the east. Remembering that the eastern highlands of South America are not very high, tell the whole story of the way the rain falls in the northern part of South America. If you cannot tell this story well, study again about rainfall, on pp 41 and 42.

The central plain of South America, from the Caribbean coast almost to Cape Horn, is even more level than the great central plain of North America, and, like it, is crossed near the central part by a swell of land. What two large river systems of South America does this low elevation separate?

What river drains the most northern part of the great plain? In what direction does this river flow? What slopes does it drain? It is deep enough for large vessels for many hundred miles from its mouth. Its broad, flat valley is called the *llanos*, the Spanish word for "plains."

In the rainy season millions of cattle and horses graze on the *llanos*. The streams are flooded with water, and the swamps are fairly alive with alligators.

With the coming of the dry season the cattle seek the hills, the alligators bury themselves in the mud, and the whole region becomes dry and brown.

What is the name of the longest river in South America? Near what circle is it? In what direction does it flow?

Most of the rain of South America falls in the Amazon basin. Why? This makes the Amazon the largest river in the world, though it is not the longest. Many miles from its mouth it is several miles wide, and steamers can ascend the river nearly to the foot of the Andes.

On which side of the Amazon are most of its branches? Name the longest. Name a northern branch. Can you find a channel that connects the Orinoco and the Rio Negro?

The plains of the Amazon are called *silvas*, which means "forests." Dense, dark forests cover the whole country. Once or twice a year the rivers overflow their banks, and hence a great part of the *silvas* is always swampy. In this part the tall trees are matted together by hanging vines and air plants, while high ferns, mosses, and other plants fill the spaces between the trunks with vegetation which is al-



These forests are full of wild animals.

ways green. Boats on the rivers are the only means of travel. These forests are full of wild animals, most of which are climbers. The great catlike jaguar is the fiercest. The immense boa constrictor coils around his prey and crushes it. Both of these animals are shown in the picture. Troops of monkeys live and travel long distances along the tree tops. These forests yield rubber, mahogany, and dyewoods.

What large river system is south of the Amazon system? Where is the Parana River?



The Paraguay? The Uruguay? The basin of the Plata River, or Río de la Plata, is about as large as the Mississippi basin. Its rivers are navigable for many hundred miles.

That part of the central plain drained by the Plata is called the *pampas*. Its southwestern part is an arid region. Why is it dry? In the northeast, however, enough rain falls for the growth of grain and fruit. Almost the

whole region is covered with long grass, with feathery white plumes. It contains the best herding grounds, and is the chief wheat-growing region of South America.

Find the São Francisco River. It is a highway of trade, and many people live in the lower part of its basin.

Sketch South America; locate the Orinoco, Amazon, and Plata rivers.

PLAINS OF SOUTH AMERICA.

- I. CENTRAL PLAIN. Location. Extent. Compare with central plain of North America.
- II. LLANOS. Drainage. Seasons. Life.
- III. SILVAS. Drainage. Rainfall. Forests.
- IV. PAMPAS. Surface. Climate. Life.

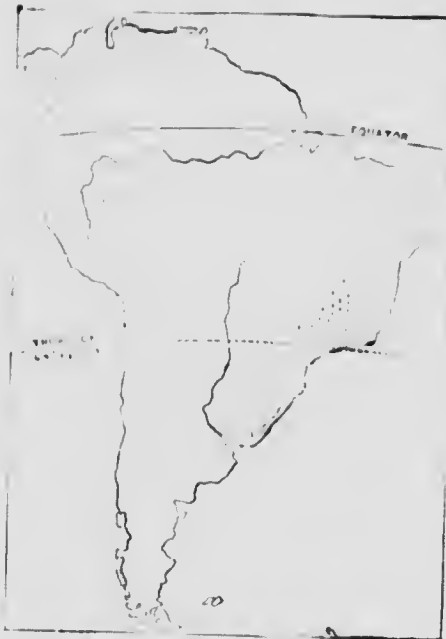
People.

There are fewer people in South America than in any other grand division except Australia. What parts are nearly uninhabited? The most thickly settled regions are about the mouth of the Plata and northward along the east coast.

Much of the land in the interior cannot easily be cultivated. Why? Why is the region east of the Andes in the south sparsely peopled? Where is a belt of settled country extending across the continent? In what zone is the main portion of this belt? In what river basin is the greater part? It is rapidly becoming the most thickly settled part of South America.

When first visited by white men, South America was inhabited only by Indians. Most of the Indians were savages, but those in Peru, called Incas, were partly civilized. They wove coarse cloth, made pottery, and built excellent roads. Where is Peru?

There are still many wild Indians in the interior of South America. Most of them live in the region of the silvas, but some live among the mountains and some in the desert region of the south. Those along the Amazon hunt and fish. They use two kinds of weapons, a spear for killing fish and turtles, and a



The dots show where the most people live.

blowgun with poisoned arrows for birds and other game. Those in the south live chiefly by hunting the *guanaco*, a kind of llama which wanders in great herds over the arid plains.

When it was learned in Europe that gold and silver were to be found in South America, a great many people went there to make their fortunes. Most of them went from Spain or Portugal, a country adjoining Spain.

The Spaniards took all the Andes highland portion of South America and most of the pampas. Many of the

people now living there are the white descendants of these Spanish settlers, but the laboring classes there, as in Mexico, are mostly half-breeds of Spanish and Indian parentage.

Name all the countries of South America crossed by the Andes Mountains. Name the capital of each. In what respect are all these countries alike? Which one has no seacoast? Which are crossed by the equator? What two small countries are east of Argentina? In Urn-



The pampas contain the best herding grounds of South America.



guay and Paraguay, as in Argentina and the Andean countries, the Spanish language is spoken.

The Portuguese settled the eastern part of South America, and their descendants, both whites and half-breeds, still live in Brazil, and speak the Portuguese language.

Many negroes live in Brazil, and with the half-breeds form the laboring class. They were held as slaves until a few years ago.

All the South American countries were at first under the control of European nations, principally Spain and Portugal; but one by one they rebelled against the mother countries, until now Guiana only is held by European powers. All the other countries are republics.



Drying coffee.

The chief hero in the South American revolutions was Simon Bolivar, often called "the Liberator of South America."

With both the Spanish and the Portuguese settlers came many Catholic priests, who established missions and schools among the Indians; and to-day the Roman Catholic is the prevailing form of religion in South America.

PEOPLE OF SOUTH AMERICA.

- I. INDIANS. Former condition. Present condition.
- II. SPANIARDS. Spanish South America. Countries.
- III. PORTUGUESE. Portuguese South America. Country.
- IV. NEGROES.
- V. LANGUAGES OF SOUTH AMERICA.
- VI. FORM OF GOVERNMENT.

Brazil and Guiana.

Locate Brazil. Describe its surface. What rivers drain it? In what zones is it? Beginning with Guiana, name the countries that border Brazil.

Brazil is not quite as large as our Dominion, and contains nearly half the people in South America.

Brazil exports many things, such as rubber, cotton, sugar, tobacco, and hides, but it is



Picking coffee.

especially noted for its coffee. It produces about as much coffee as all the rest of the world.

Coffee grows on a tree bearing a beautiful purple berry which contains two seeds. The ripe berries are gathered two or three times a year and thrown into vats, where the pulpy part is washed away from the seeds. The seeds are then dried, packed in sacks, and sent to the market, as coffee.

The coffee plantations are in the warm plateau region of southern Brazil. Where is Rio de Janeiro? The name means "River of January." It is the capital and largest city of Brazil, and is named after a little river on which it is situated. The river is so called because it was discovered one summer day in January. Can you guess why Brazilian coffee is called *Rio* coffee? Most of the coffee shipped from this port goes to the United States.

In the narrow and crooked streets of Rio de Janeiro may be seen many negroes — men,

women, and children — carrying burdens of all kinds balanced on their heads. On the outskirts of the town are handsome residences overlooking one of the most beautiful harbors in the world. The bay is nearly surrounded by high hills, where the wealthy citizens take refuge during the summer when the yellow fever prevails in the city.

Where is Santos? Much coffee is also shipped to our country from this port.

Where is Pernambuco? There are sugar plantations in this region.

Where is Bahia? Sugar and tobacco are its chief exports.

Rubber is an important product of Brazil. It is gathered by the Indians of the *silvas*, in the swampy forest. With his hatchet the Indian cuts a gash in the bark of a rubber tree; then with a piece of clay he fastens a little cup to catch the milky sap that slowly trickles out. When he has gashed about a hundred trees, he collects the sap from the cups. Next he builds a fire of palm nuts, and, dipping a wooden paddle into the sap, holds it in the thick smoke of the burning nuts until the sap has become hard and elastic. This hardened sap forms the rubber of commerce.

Where is Para? Nearly all the rubber is sent from Para to the United States and Europe, where it is used for bicycle tires, car springs, overshoes, and hundreds of other things.

The Brazil-nut tree and the cacao tree grow in the *silvas*. The fruit of the cacao is a bean from which cocoa and chocolate are made. Manioc, the root from which tapioca is made, is also a native of Brazil. All these products are shipped to Europe and the United States.

Where is Manaos? It is the largest town in the interior of Brazil.

Guiana is much like Brazil in surface and climate. The English own one part, the French another, while the third part is owned by another



Smoking the rubber.

European people called the Dutch. The planters are white; many of the laborers are negroes. France sends criminals to French Guiana as a punishment. Sugar, gold, and cocoa are the chief exports. Find the capital of each division.

Sketch South America; show Brazil and locate Rio de Janeiro.

PRODUCTS OF BRAZIL.

- I. COFFEE. What it is. Location of the coffee plantations. Chief ports for shipment of coffee. Country to which most of it is shipped.
- II. SUGAR. The sugar plantations.
- III. RUBBER. What it is. How gathered. For what used.
- IV. OTHER PRODUCTS.

Argentina and the Plata Countries.

In what zone are the pampas? What river system drains this plain? In what direction does the plain slope? What mountains west? What are the products of this region? What three countries in this great plain? Which of these is the largest? Which has no seacoast?

Next to Brazil, Argentina is the largest and richest country of South America. Every year many thousand people come from Europe to make their home in its grain-growing lands,



Collecting the sap.

and there are more white people there than in any other country of South America.

The herdsmen of the pampas are called *gauchos*, and are of mixed Spanish and Indian blood. There are no better horsemen in the world, and none more skillful with the lasso.

The herds of cattle and sheep form the chief wealth of the country, and great quantities of live cattle, packed meat, beef extract, tallow, hides, and wool are shipped to Europe.

The farms are mainly in the river valleys in the north, from which the wheat can be easily carried to the markets by vessels, but railways have been built to many of the farming districts. There are more miles of railway in



The herds form the chief wealth of Argentina.

Argentina than in any other South American country. One line is to cross the continent. Argentina exports large quantities of wheat to Europe, most of which goes to England and France.

In Paraguay and Uruguay cattle raising is the chief pursuit, though Uruguay also produces large crops of wheat. An important industry in Paraguay is the gathering, curing, and shipping of the leaves of a kind of holly, called *maté*, which are widely used in place of tea in all the southern part of South America.



A ferry in Uruguay.

What is the capital of Argentina? Its name means "good air," but the city is not very healthful. It is the largest city of South America, and a great commercial center. Channels have been dredged in the shallow harbor, so that steamers can now come up to the wharves. In the crowded streets and showy shops are heard many languages, for one quarter of the people are foreigners. Where is Montevideo? It is the capital and largest city of Uruguay. Lines of steamships connect both cities with seaports of the United States and Europe. Find the capital of Paraguay. In most of the large cities of the pampas there are electric lights, telephones, schools and colleges, and newspapers.

Sketch a map of South America; show Argentina, Paraguay, and Uruguay.



Steamers can now come up to the wharves of Buenos Aires.

ARGENTINA AND THE PLATA COUNTRIES.

- I. LOCATION AND BOUNDARIES.
- II. SURFACE AND DRAINAGE.
- III. CLIMATE AND RAINFALL.
- IV. VEGETATION AND ANIMALS.
- V. CITIES.

Read what is written about the pampas on p. 86.

Andean Countries—Chile.

What country of South America forms a long, narrow strip on the western slope of the Andes? What countries east, and what water west, of it?

There are many short streams flowing down the western slope of the Andes in Chile. In the fertile valleys of these streams are many farms. Some of the streams never reach the sea, for their water is carried in a maze of ditches to irrigate the farms. The mountain slopes of southern Chile are covered with heavy forests.

As in the other countries of the Andes, grain, wool, fruit, and silver are produced, but the chief wealth of Chile is "nitrate" or saltpetre, from which gunpowder is made and which is used in Europe as a fertilizer. It is dug from old lake beds in the desert region of the north.

Where is Iquique? Most of the saltpetre is shipped from this port.

There are fewer people in Chile than in some of the other countries, but they have made their country one of the most powerful in South America. Their schools and colleges are excellent.

Where is Santiago? Earthquakes are frequent there, and most of the houses are low, with thick walls made of *adobe*. There are many beautiful streets and parks, and many of the public buildings are large and imposing.

Find Valparaiso. It is the largest seaport on the western coast of South America. A railway is being built from this city to Buenos Aires.

Sketch South America; show the location of Chile.



A mountain cart.



Farm carts in Chile.

CHILE.

- I. LOCATION AND BOUNDARIES.
- II. SALTPETER. Where found. Where taken. How used.
- III. PEOPLE.
- IV. CITIES.

Northern Andean Countries.

Name the five northern Andean countries. In what zone are they? In what zone is the greater part of Chile? On which slope of the Andes is Chile? On which slope is Bolivia? The other Andean countries? What great river system receives drainage from the eastern part of all the northern Andean countries? Why has the greater part of Chile abundant rainfall? Which side of the northern Andean countries receives the greater amount of rainfall? Why?

The northern countries of the Andes are much alike in surface and climate. In each, the Pacific coast is a hot, dry region crossed by short mountain streams. The Andes in each country contain many volcanic peaks so high that, although in the torrid zone, they are always capped with snow, while the plateau is so high that its climate is delightful. The broad eastern slope in each country extends into the moist lowlands of the silvas or the llanos.



Arequipa, Peru, and the volcano Misti.

In spite of the dryness of the western slope, more people live there than in the fertile lands east of the mountains. The short mountain streams have wide valleys, and furnish water to irrigate the farms, which produce abundant crops of sugar, coffee, and cotton. Between these irrigated lands are hot deserts covered with hillocks of drifting sand.

The Incas lived on the high plateaus of the central Andes. Where is Cuzco? It was the capital of the Inca empire, and was surrounded by thick walls of stone. Within was the Temple of the Sun, to which pilgrims came from every part of the empire. On an island in



Native boats on Lake Titicaca.

Lake Titicaca was another temple almost as magnificent.

After a savage war the Spaniards conquered the Incas, so that little by little their great empire melted away. But a few of their descendants still live in this region. They are skillful weavers of woolen cloths, and own herds of llamas and cattle.

Lake Titicaca is nearly half as large as Lake Ontario. Travelers now cross it in steamboats, but the natives use boats woven of rushes.

Next to Chile, Peru is the leading country of the Andes. It lies mainly in the high plateau. Sugar, silver, cotton, and wool are the chief



Native houses in Ecuador.

products. The cinchona tree, from the bark of which quinine is made, grows on the eastern slope of the Andes. Find Lima. It is the capital and largest city. What is the name of its seaport?

What country of the Andes has no seacoast? Some of its products go to Buenos Aires to be sent abroad. Silver, rubber, and cinchona bark are the chief exports. La Paz is the largest city. Sucre is the capital. Potosi is in the midst of silver mines.

One of these countries has the Spanish name for "equator." Why? It is the smallest country of the Andes. Cocoa is the chief product. Where is Quito? Eleven snow-capped peaks can be seen from its public square. What is the chief seaport?

Most of the trade of Colombia is on the Atlantic coast. A railway crosses the Isthmus of Panama. What is its use? Coffee, silver ore, and cocoa are the chief goods sent to for-



Natives weaving cloth in Colombia.

eign countries. What is the capital of Colombia?

Many years ago, a Spanish sailor found, in Lake Maracaibo, a village whose houses were built out in the water on posts. Because Venice, a city of Europe, is built out in the water in somewhat the same way, he called the village Venezuela, or "little Venice," and this finally became the name of the country. Coffee, cocoa, gold, and hides are the chief prod-

ucts. Caracas, the capital, and Valencia are the largest cities.

Sketch South America; show the northern Andean countries.

NORTHERN ANDEAN COUNTRIES.

- I. LOCATION AND NAMES.
- II. SURFACE AND CLIMATE. The high plateau Western slope. Eastern slope.
- III. PRODUCTS.
- IV. PEOPLE.
- V. CITIES.

REVIEW EXERCISES.

Location.—What isthmus connects the two grand divisions of the Western Continent? How do these grand divisions compare in size? How far north does North America extend? How far south does South America extend? Which grand division extends farther east? West? Where do the tropics cross each? What countries included between the tropics?

Shape.—What is the general shape of each of the Americas? In what respects are their Pacific coast lines alike? In what respects is the northern coast line of North America like that of South America? In what ways is it different? Where are the ice-bound coasts of the Western Continent? Which of the Americas has more islands? More peninsulas? More good harbors? The longer coast line?

Surface.—In what respects are the Americas alike in relief? In what part of each is a great highland region? A great plain?

Compare the Andes highland with the Rocky Mountain highland in extent; in height; in width; in mountain ranges.

Compare the great central lowland of South America with that of North America in size; location; water partings.

Compare the Brazilian plateau with the Appalachian plateau in shape and location. What small plateau in South America corresponds in position with the plateau north of the St. Lawrence in North America?

Drainage and Climate.—What three large rivers drain the Atlantic slope of South America? Which one corresponds in position to the Mississippi in North America? In what respects are the basins of these two rivers alike? What grain is a leading product of each? How does the Amazon basin compare with the Mississippi basin in size? How do the rivers compare in length? In volume of water? Which basin has the greatest rainfall? Why? How does the climate of the Amazon basin compare with that of the Missis-

siippi? Which basin has the more luxuriant vegetation? Why? Which has more people? More cities?

Compare the Pacific slopes of the Americas in width, and in number and length of rivers.

Compare the two Americas with regard to the size and number of lakes.

Forests.—Where are the forest regions of North America? Of South America? What is made from the sap of the North American pine? Of the maple? What is made from the sap of a South American tree? What use is made of the bark of the North American oak and hemlock? Of the South American cinchona tree? Where does the coffee tree grow? To what country is most of the coffee shipped?

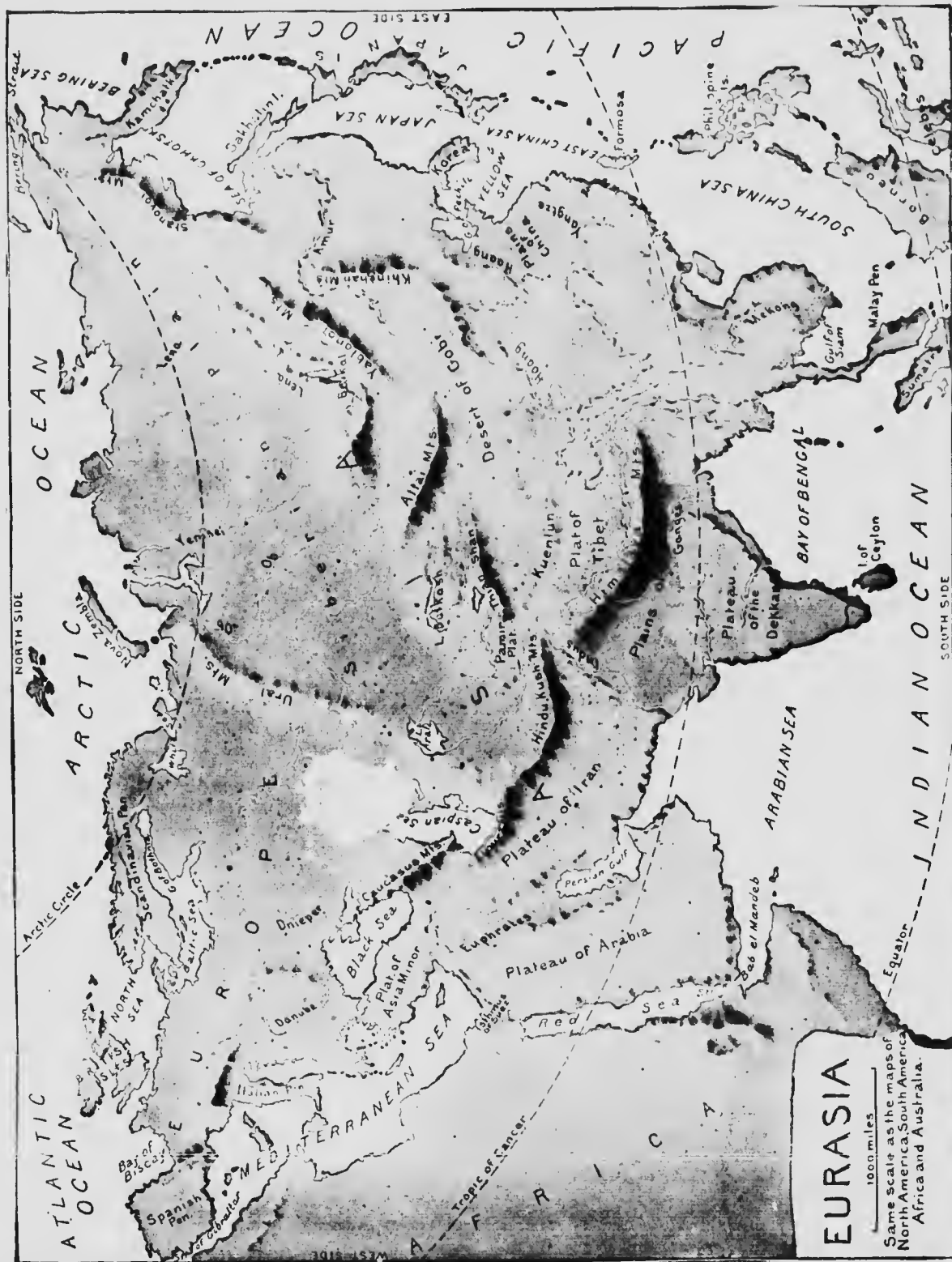
Meat.—Where are the grazing regions of the Western Continent? In which grand division are they on a plateau? In a valley? What are the meat-exporting cities of North America? Of South America? Where is much American meat sent? How?

Grain.—Where are the grain-growing regions of this continent? What grain is chiefly grown? Where is much American grain sent?

Minerals.—What minerals are found in both Americas? Where? What minerals are more abundant in North than in South America? Where is saltpetre produced? For what is it used?

People.—In which of the Americas were the Indians found to be more civilized? What two languages are mostly spoken in North America? In South America? What form of government prevails in the Americas? What exception in North America? In South America? What regions of the Western Continent are sparsely inhabited because they are too dry? Too cold? Too warm?

Railroads.—Where is Valparaiso? How is it to be connected with Buenos Aires? Where is South America crossed by a railroad? Give some reasons why the Amazon basin has so few railways.



EURASIA.

Position, Size, and Shape.

What circle crosses the northern part of Eurasia? The southern part? What circle crosses the islands near the southeastern portion? In what zones is Eurasia? What other grand division lies in three zones? If you will trace, on tissue paper, the maps on pp. 24 and 82, and then cut them out and lay them over this map of Eurasia, you will get some idea of the size of this large grand division.

What ocean is north of Eurasia? East?

South? What waters nearly surround the western part? What grand division is southwest of Eurasia? What two seas lie between Eurasia and Africa? What isthmus? A ship canal called the Suez Canal has been dug through this low and sandy isthmus. What is its use? What projected canal does this remind you of? Why was the Suez Canal easier to construct? What strait connects the Mediterranean Sea with the Atlantic Ocean?

The Red Sea with the Indian Ocean? What grand division east of Eurasia? What strait separates Eurasia from North America? On which side of Eurasia are there the most islands?

What is the general shape of Eurasia? The western point of the triangle is really a long, irregularly shaped peninsula

called Europe, projecting westward from the main body of the grand division, which is called Asia.

In the Western Continent we found a long mountain system in the western part, and less elevated highlands in the eastern part. The great highland of Eurasia extends in a broad V shape, and has a general east and west direction.

The western arm of the highland extends from northwest to southeast. In what direction does the eastern arm extend? The region where these two arms meet is the highest part of the great Eurasian highland, and contains the highest mountains in the world. Because one range

is always snow-capped, it is called the *Himalayas*, which means the "abode of snow."

To the south and east the plateaus of the highland region extend nearly to the ocean. Describe the general surface of the land north and west of the highland. A low mountain range divides the great northern plain, and has been chosen as the boundary between Europe and Asia. What is its name?

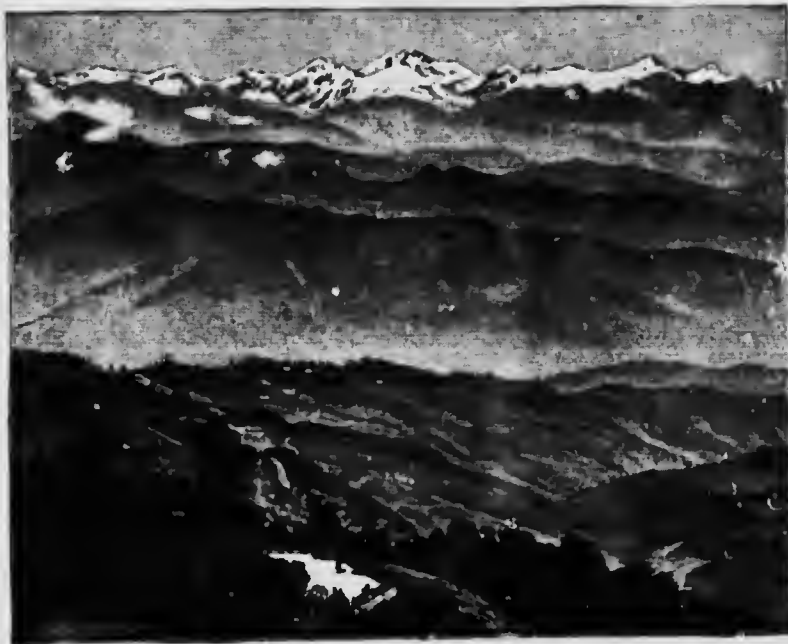
Some of the largest rivers in the world flow east or south from the Eurasian highland.



Suez Canal



Scene at Port Said, at the northern end of the Suez Canal.



The Himalayas, which means the "abode of snow."

Name four on the eastern slope. Three on the southern slope.

Southwest of the Ural Mountains there is a depression containing two large salt seas. They help to separate Europe from Asia. What are their names? Some of the rivers draining the great plain flow southward into these seas; but many flow north and west to the ocean. The largest of these are in the Asiatic part of



Home of the races in Eurasia.

the grand division, and flow into the Arctic Ocean. Why are they not useful for commerce?

More than three fourths of the people in the world live in Enrasia. More than one third of these live in the small European part of the grand division. Where do the Mongolians live? Where do the Malays live? These two races occupy most of the eastern part of Asia.

The home of the white race is south of the Himalayas, and about the western arm of the Eurasian highland. The Europeans are civilized white people, and are the ancestors of most of the people

in America. Their occupations, habits, and needs are much like ours, and the greater part of our trade is with them.

REVIEW.

Position. — In what hemisphere is Eurasia? In what part of the hemisphere? What four oceans border Eurasia? In what direction from Eurasia is America? How does Eurasia compare with America in size?

Relief. — In what direction is Eurasia longest? In what general direction does its great highland region extend? Does the great highland region of North America extend in the direction of the greatest length of the continent? How is it in South America? In what respect are the highlands of the three grand divisions alike? In what respect do the highlands of Eurasia differ from those of America?

In what direction from the highland region is the great plain of Eurasia? Compare this plain with the great plains of America in direction of greatest extent. Is the division of Eurasia into Europe and Asia natural or artificial?

Drainage. — Name the rivers of the great northern plain of Eurasia. Does all of this plain slope northward? Name the rivers of Eurasia which flow to the Pacific or the Indian Ocean.

EUROPE.



Position and Coast Line.

What part of Eurasia is called Europe? In what part of Europe?

Although Europe extends as far as Canada, its climate as a whole is much more severe, for the mild southwest winds from the warm Atlantic blow far into Europe.

The northern part of Europe, however, is very cold. The valleys of the Scandinavian peninsula are filled with glaciers, and in the extreme north the plains are covered with snow during most of the year.

The sheltered valleys of southern Europe are exceptionally warm, because hot winds from Africa blow freely over them, while northern winds which might chill them are checked by the mountains. The southern part of Europe is the greatest fruit- and wine-producing region of the world.

We have learned that Europe is a peninsula. How is it very crooked, forming many peninsulas, with gulfs, bays, or seas between them? What sea is south of Europe? What is the capital? The people who named it

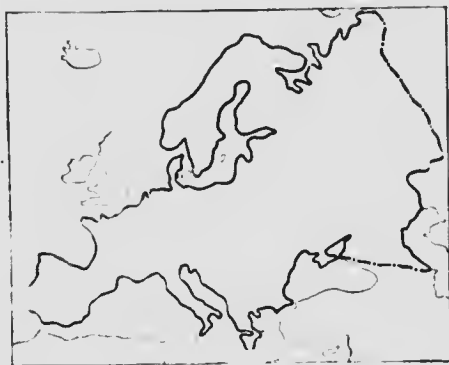
thought that there was no land in the world except that which lay around this sea. Name three seas opening into the Mediterranean. What bay is west of Europe? What sea is west of northern Europe? What sea opens into the North Sea? What sea indents the northern coast of Europe?

These waters give to the grand division a great length of coast, and they extend inland so far that no part of western Europe is very distant from the sea. The people of that region have always been great sailors and traders.

Where is the Scandinavian peninsula? What smaller peninsula is south of it? The people from these peninsulas are good fishermen and seamen. How many peninsulas extend southward from Europe? What have you learned about people from the Spanish peninsula? What is the central peninsula called? The eastern peninsula?

What group of large islands is west of the North Sea? What strait separates the largest of these from the mainland? Count the large islands in the Mediterranean. What arm of this sea contains many small islands? A group of islands is often called an *archipelago*.

Practice making a sketch map of Europe like this, but larger.



POSITION AND COAST LINE OF EUROPE.

- I. LOCATION. In what zones. How bounded.
- II. COAST LINE. Peninsulas. Indentations. Islands.



Climbing Mont Blanc, the highest peak of the Alps.

Relief and Drainage.

Through what part of Europe does the great highland region of Eurasia extend? Its highest mountains in Europe are the Caucasus in the east and the Alps in the west. The summits of both these ranges are always covered with snow, and many great glaciers creep slowly down their sides.

Eastward from the Alps extend the Carpathians. What mountains are south of the Carpathians? Westward from the Alps extend the Pyrenees. The highest peaks of these mountains are always snow-covered. What peninsula is formed by the plateau south of the Pyrenees? What branch or spur extends southeast from the western end of the Alps? What peninsula does it form? What spur extends southeast from the eastern end of the Alps? What peninsula does it form? Thus we see that the three southern peninsulas of Europe are really plateaus or spurs from the Eurasian highland.

What low mountains are in the Scandinavian peninsula? They rise abruptly from deep bays, or *fjords*, on the western shore, but descend more gently on the eastern side to a plain which slopes toward the Baltic Sea.

What part of Europe is a smooth lowland

plain? What low mountains border the European plain on the east? What mountains border it on the southeast?

In which part of Europe is the great plain widest? In which part is it very narrow?

Where is the continental divide of North America? In what direction does it extend? Beginning at the Ural Mountains, draw with your pencil, across the map of Europe, a light line between the sources of the rivers which flow north and west.

At the sources of the

which flow south

west. In what di-

rection does the great

divide of Europe ex-

tend? Which part of

it is high? Which

part of it is quite

low?

Which river of Eu-

rope flows into the

Arctic Ocean? Which

into the White Sea? Much of the land drained

by these rivers is frozen to a great depth,

thawing on the surface only, during the short

summer. Name two large lakes in northern

Europe. Name one river flowing into the Bal-

tic. Which river has its source in the Alps

and flows into the North Sea? Name a river

flowing into the Bay of Biscay.

The largest river of Europe flows southward

from the great divide, and empties through a

large delta into the Caspian Sea. What is its

name? Though a much smaller river than

the St. Lawrence, it is a very important route of

commerce. The great plain near its source is

so low and flat that its head waters have been

connected by canals with streams flowing to the

northwest; thus goods from the Volga basin

are shipped up the river to the Gulf of Finland

and the Baltic ports. What other river flows

into the Caspian Sea? As this great sea or

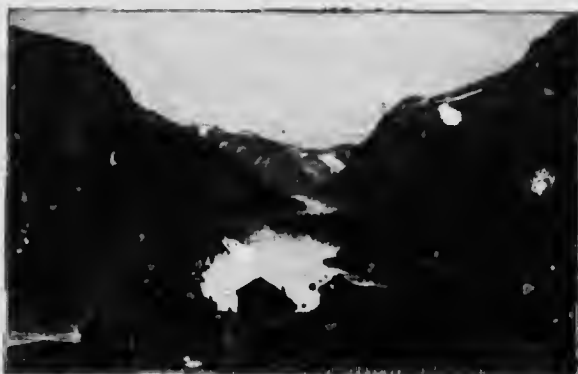
lake has no outlet, its waters are salt.

What three rivers flow into the Black Sea? Which of them cuts through the mountains at two points? The gorge where the Danube rushes between the Carpathian and the Balkan mountains is called the Iron Gate. What two rivers flow into the Mediterranean from the Alps? What river of the Spanish peninsula flows eastward?

Besides lakes Ladoga and Onega there are many smaller lakes in northern Europe. This

is a great region for hunting and fishing. The lakes are frozen over for many weeks in winter, and the country near them is flat and dreary. In the Alpine region, also, there are many small but beautiful lakes.

Make a sketch map of Europe, showing its large rivers.



The Kiolen mountains rise abruptly from deep bays, or fjords.

RELIEF AND DRAINAGE OF EUROPE.

- I. HIGHLANDS. Position; direction; extent. Parts: Alps, Italian and Grecian peninsulas; Pyrenees and Spanish peninsula; Carpathian; Balkan; Caucasus; Ural; Kiolen.
- II. LOWLANDS. Location. Extent.
- III. GREAT DIVIDE OF EUROPE. Location. Direction.
- IV. RIVERS OF THE NORTHWESTERN SLOPE.
- V. RIVERS OF THE SOUTHEASTERN SLOPE. Caspian basin. Black Sea basin. Mediterranean basin.
- VI. LAKES. Northern. Alpine.



Lake Lucerne, in the Alpine region.



Trace the outline of the Dominion of Canada, and compare its size with that of Europe. You see that the Dominion is nearly as large as the whole of Europe.

Europe is one of the smallest of the grand divisions, but it is so thickly settled that no grand division except Asia contains more people. You may think that some parts of our country are densely peopled, but parts of Europe are much more crowded, for Europe has four times as many inhabitants as the whole of North America.

What part of Europe is most thickly settled? (See map below.) What parts have the fewest inhabitants? Even in the less thickly settled parts there are more people than in the whole of North America. The most highly civilized people in Europe live in the thickly settled parts. They have electric lights, railways, and telegraph lines as we have, and they can receive news from all parts of the world by means of telegraph cables which have been laid on the bottom of the ocean from Europe to each of the other grand divisions.

White men first came to live in America about the year 1500. How long ago was that? That seems a long time ago. Yet the ancestors of some of the white people of Europe lived in that grand division not only hundreds, but thousands, of years ago.

The white people who settled our country were civilized when they came from Europe and conquered the savage inhabitants whom



The dots show where the most people live.

they found here. Thousands of years ago the white people of Europe were themselves savages.

The first portion of Europe to become civilized was the Grecian peninsula. The Greeks were conquered by the Romans of the Italian peninsula, who learned much from the conquered Greeks, and became the most civilized people of Europe. They made fine roads, wrote many books, raised big armies, and conquered all western Europe. Where is France? Spain? England? The Romans conquered these countries and made good laws for the people.

Where is the German Empire? The savage tribes who lived in that region finally conquered the Romans, and learned civilization from them.

Where is Denmark? Norway and Sweden? The early people of that region were called Northmen. Why? They were bold seamen who sailed about the northern seas, murdering and robbing the people in the more civilized lands. But they gradually learned peaceful ways from the people whom they robbed.

Where is Russia? This was one of the last countries of Europe to become civilized. Most of the people are white, but there are also many of the yellow race.

Where is Turkey? The Turks belong to the yellow race. Turkey is hardly counted among the civilized nations of Europe even to-day.

A person who can talk in English and in Spanish can make himself understood in nearly all parts of America. In Europe the people of almost every country speak a language of their own, which the people of the neighboring countries do not understand. Thus, the English language is spoken in the British Isles, the German language in the German Empire; the French in France; the Spanish in Spain; the

Norwegian in Norway; and so on. So that a person who wished to talk with the people in all parts of Europe would have to learn to speak many languages.

Though the languages of the various countries of Europe differ so greatly, some of them are more nearly alike than others.

Draw a line from the eastern part of Belgium to Greece. The countries southwest of this line were conquered by the Romans, and their languages are not only somewhat alike, but are somewhat like the old Latin language that was spoken by the Romans. For this reason the southwestern part of Europe is often called Latin Europe.

Draw another line from Greece to the northern part of Sweden. The languages of the countries between this line and southwestern Europe are more nearly like the old German language than the old Latin language, and so this middle part of Europe is often called Germanic Europe. England was conquered by German peoples, and afterwards by people from France, but the English language is more nearly like the German than like the French or Latin, so the British Isles are classed with the countries of Germanic Europe.

What great country is in eastern Europe? Find Bulgaria, Servia.



Ruins of ancient Athens, in the Grecian peninsula.

THE BRITISH EMPIRE.



Houses of Parliament, Westminster.

The British Empire consists of Britain, the motherland, and her colonies and possessions in various parts of the world. These include, among others, Gibraltar and Malta in Europe; Canada, Newfoundland, British Guiana, and Jamaica in America; India, Ceylon, and Cyprus in Asia; Cape Colony, Natal, Orange and Vaal River Colonies, Rhodesia, etc., in South Africa; Australia and New Zealand in the Pacific Ocean. A description of each is given in its respective place, and a complete list, with areas and populations, is to be found in the Supplement.

This empire is the richest and most powerful of the nations, and is equalled in population only by China. It includes more than one-fifth of the land surface of the earth, and more than one-fourth of the population. It has been said that the sun never sets on Britain's flag, and that her drum-beat rolls round the world.

As we have already seen, Britain ranks first in commerce, and her colonial trade is far greater than that with any foreign nation. Her great steamship lines carry passengers and merchandise to and fro between all parts of

the empire cheaply and speedily. Constant communication is kept up by her cables and telegraphs, which immediately report in London the occurrences in her most distant possessions. Her colonies and her commerce are protected by a fleet of warships as powerful as the combined navies of any two other countries, and all the great trade routes are strongly guarded by naval fortresses and coaling stations. Britain, thus, is "Mistress of the Seas."

But she has long since learned that the best safeguard to her authority lies in the wisdom and uprightness of her government. Colonies whose population is mainly of European origin, such as Canada, Australia, and Cape Colony, have been granted self-rule. They enjoy the protection of the motherland, but their connection with her is voluntary, being prompted by love and gratitude as well as self-interest. The dark races of the empire are ruled by officials appointed by the British Government. The interests of the natives are carefully guarded, and as they see that their condition is greatly improved under the British flag, they are loyal and contented.



THE BRITISH ISLES.

What sea lies east of these islands? What sea lies in the midst of the group? What water lies south of England? What strait divides England from France? What channels between Scotland and Ireland, and between Wales and Ireland? Point out the mountains of Scotland, Ireland, Wales, and England. Name these four countries in the order of size. Which is farthest east? West? North? South? What is a firth? Point out five of them in Scot-



London Bridge.

land. Where do the Severn, Thames, Humber, Shannon, Barrow, Tweed, Clyde, and Forth empty? Find Cork, Waterford, Dublin, Belfast, Londonderry, Sligo, and Galway.

Find Glasgow, Edinburgh, Dundee, and Aberdeen. Make a list of the chief towns and cities of England. Where are Swansea, Cardiff, and Merthyr-Tydvil?

Position and Extent.

The British Isles form an archipelago west of the mainland of Europe and consist of two large islands and over 5,000 small ones, which stretch northward for 600 miles, and 500 miles from east to west. They lie almost exactly in the middle of the land hemisphere of the world, and form the centre of the British Empire. Great Britain is the largest island of Europe and the most important in the world, for it has the best commercial position on the globe, with the shortest trade routes, and contains the commercial metropolis of the world. Ireland is about one-third the size

of Great Britain, from which it is separated by a narrow sea and two channels. Find these on the map. What waters divide Great Britain from the mainland?

Physical Features.

On the larger island the chief highlands are in Scotland, the northwest of England, and Wales. Find Ben Nevis and Snowdon on the map. The coasts of these parts are rocky and broken; deep bays and islands are numerous, especially on the west coast of Scotland. The western side of both islands is the higher, while the south and east parts are mostly level, with pretty low coasts. In Great Britain the elevated region is continuous from Land's End to Duncansby Head, but in Ireland the mountains are in detached masses, mostly near the coast, while most of the inland district is a wide plain. Find all these places on the map. Point out the Cheviot Hills. Just north of these lie the Lowlands of Scotland, and southward lies the rich farming and grazing lowland of England, extending to the English Channel. Both islands have numerous fine harbors, abundant rainfall, and large areas of fertile soil.

Drainage.

No part of the country being very distant from the sea, the rivers are small compared with those of Canada. The largest, the Shan-



Windsor Castle.

non, is not more than 250 miles long. In Great Britain the main waterparting follows the highlands near the west coast. The longer rivers, therefore, flow east to the North Sea. Owing to the great rainfall, their volume is relatively large; and as the slope of their valleys is usually very gradual, they are navigable for considerable distances. Many of them have broad, deep estuaries at their mouths. Name the most important of these.

On account of the great cities on their banks, and the amount of shipping on their waters, the Thames, the Clyde, and the Mersey must rank among the most important rivers of the world.

Numerous small lakes famed for their beauty are to be found in Ireland and in the highlands of Scotland.

Climate.

Although the British Isles are as far north as Labrador, yet the prevailing west winds which blow over the warm waters of the Atlantic keep the climate very mild in winter. Even in the north of Scotland the January temperature is much higher than in southern Ontario. Over the greater part of the country the snow remains but for a few days at a time. On the other hand the summer heat is much less than in Canada.

The ocean winds also make the climate very moist, especially in Ireland and in the highland regions of Great Britain. In these parts nearly twice as much rain falls as in eastern Canada.

Industries.

These are so numerous and varied that it is difficult to give a brief general account of them. Agriculture was long the most important occupation, and it still gives employment to a large number of the people. The rich, level plains on the east and south of England are specially adapted to grain and vegetables, and great quantities of wheat, barley, oats, turnips, etc., are grown. The rearing of live-stock is carried on extensively, and the English breeds of horses, cattle, and

swine are among the very best in the world. Owing to the thinner soil and the greater rainfall, farming in the highlands of Scotland and Wales is chiefly confined to grazing, and sheep and cattle are raised in large numbers. The pastures of Ireland are famous for their richness, and from the greenness of the vegetation comes the name, "The Emerald Isle."

Cattle, horses, and swine are shipped to England. In the north, flax is extensively grown.

The mineral wealth of Britain is very great. Coal and iron occur together, and are mined in vast quantities in South Wales, along the slopes of the Pennine and the Cumbrian mountains, and in Scotland between the Clyde and the Forth. About 220 million tons of coal are raised annually. Iron and steel are usually smelted near the mines, and a large amount of iron ore from Spain, Sweden, and other countries is imported to be mixed with the native product. Salt, lead, copper, and tin are also



Throne Room, Buckingham Palace.

mined extensively. The total annual value of the minerals produced is nearly 500 million dollars.

Cheap coal and iron stimulate every kind of manufacture. Metal goods, such as needles, pens, cutlery, firearms, engines, machinery, and ships are produced in immense quantities, and are shipped all over the world. Of equal importance is the textile industry. Cottons are manufactured most extensively in Lancashire, between the Pennines and the Irish Sea. Here coal is close at hand, raw cotton is supplied through the neighboring port of Liverpool, and the moist climate is peculiarly adapted to spinning and dyeing. On the eastern slopes of the Pennines, and in southern Scotland, woollen goods of various kinds are made. Linens are produced most largely in the north of Ireland. Manufactures of all kinds amount to one and a half billion dollars yearly.

Great Britain ranks first among the commercial nations of the world. Her trade amounts to four and a half billion dollars a year, which equals the combined value of the trade of her closest rivals, the United States and Germany. The numerous mining, manufacturing, and trading classes require much more food than is produced at home; and breadstuffs and meats are imported from the United States, Canada, Russia, and Australia; butter and cheese from Canada, Denmark, and Holland; tea from India and China; sugar from the West Indies and Germany. Raw material for manufactures



The Giant's Causeway.

is also largely imported. Cotton is brought from the United States, India, and Egypt; wool from Australia, Argentina, and Cape Colony; timber from Canada, Scandinavia, and Russia. In return for these articles she sends her manufactured cottons, woollens, and hardware all over the world. Coal is also exported in large quantities.

Cities and Towns.

No other country has so many large cities within so small an area and with so much accumulated wealth. LONDON is the largest, wealthiest, and most populous city on the globe, containing, with its suburbs, over six million people. About 40,000 ships enter the port every year, and its dockyards and basins are the most extensive in the world. It is the great emporium where the products of every country are collected and distributed, and people of every nation and language are found on its streets; it is, in fact, a little world within the world. It contains many fine public buildings and is the headquarters of the British Government and the very heart of the Empire. The Underground Railway, the Thames Tunnel, the British Museum, and the Bank of England are among the wonders of the world.

Glasgow, population 786,000, is noted for shipbuilding, extensive commerce, and great



Loch Katrine.

manufactures of machinery, cotton and woollen goods, carpets, and pottery. The estuary of the Clyde has been improved at great expense so that the largest vessels can enter. Its cathedral, university, and Royal Exchange are fine buildings; the docks are enormous and do a great foreign trade.

Liverpool, population about 684,000, has immense docks, quays, and floating landings which extend miles and miles along the estuary of the Mersey. The harbor mouth is protected by a vast breakwater, and a ship canal navigable by ocean steamers reaches to Manchester. The commerce of the world comes to this port, but especially that of Canada and the United States. At Birkenhead on the south side of the river ship-building is carried on extensively.

Manchester, 544,000, is the world's greatest cotton-manufacturing centre, and also produces woollens on a large scale. It has a large number of fine public buildings, and is a great railway centre.

Leeds is noted for its woollen fabrics, and its cloth market is famous.

Birmingham and Sheffield are celebrated for the quantity and variety of their metal work, including tools, cutlery, engines, and jewellery.

Belfast, the largest city in Ireland, is engaged in linen and woollen manufactures, and in shipbuilding.

Bradford, Leicester, Nottingham, and Halifax have immense factories and are famous for the product of their looms. Kidderminster, Wilton, Axminster, Kilmarnock, and Dundee are famous for their carpets. Besides these

there are scores of places where all kinds of manufactured articles are produced, such as glassware, chemicals, porcelain, and other goods.

Bristol, Southampton, Hull, Leith, and the port of Cork have noted harbors and are great seaports.

Cardiff and Newcastle are the great ports for the shipment of coal; the latter has important gun foundries and shipyards.

Portsmouth, Plymouth, Devonport, Chatham, and Milford Haven are the chief naval stations, and many war ships are built at these places.

Cambridge, Oxford, Edinburgh, Glasgow, Dublin, and Aberdeen have well-known colleges and universities.

Government.

The British Isles form what is called the United Kingdom of Great Britain and Ireland. They are ruled by a Queen or King who holds his position by right of birth. His power is greatly limited by Parliament, which

represents the people and makes the laws and levies the taxes. The King is advised in all acts by his Privy Council or Cabinet, which is responsible for its advice to Parliament, and by whom it may be dismissed at any time for mistakes or wrong-doing. Thus it is really the people who rule, and no nation has more freedom or a better government.

How does the British Empire rank among the nations of the world? Of what does it consist? Name some of its principal possessions in each of the continents. What colonies are inhabited principally by people of European origin? What ones by dark races? How are the colonies of each class governed? Trace the great trade routes between Britain and her colonies. What are the chief articles of commerce carried on each? By what naval



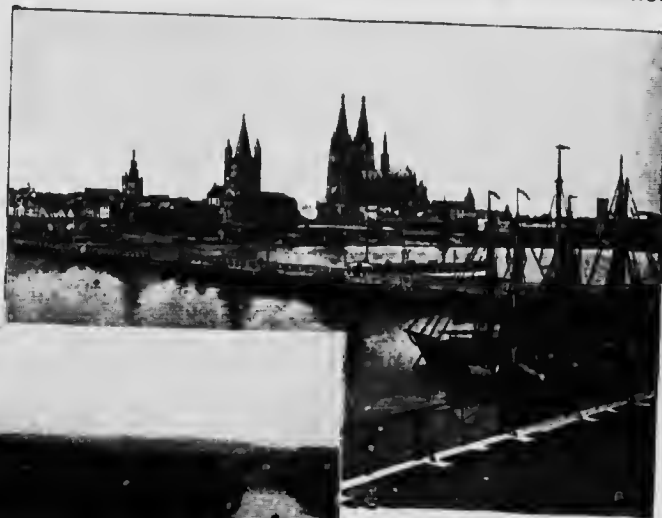
Edinburgh Castle.

stations is each of these routes protected? Name the British naval stations in Canada. By what different British routes may one travel from London to Hong Kong? From Montreal to Australia?

Where and what are the following:—Scilly, Wrath, Minch, Neagh, Solway, Orkney, Grampians, Menai, Lomond, Anglesey, The Wash, Tweed, Pentland, Lewis, Trent, Boyne, Cleary? Why is Labrador, although at the same distance from the equator as England, so much colder? Which coast of Great Britain has the largest rainfall? Why? What effect has the climate upon the industries of the country? What effect have the physical features? What are the most important minerals of the British Isles? Where are the most important mines? What parts of these islands are most densely populated? Give reasons. Name the principal places engaged in the manufacture of cottons, of woollens, of hardware, of carpets. What are the great shipbuilding centres? Name the chief seaports on the east, the south, and the west coasts of Great Britain. What reasons can you give for the rapid growth of London, Liverpool, and Glasgow? How does the government of Great Britain differ from that of the United States?

much of the best music has been composed by Germans.

The country used to be divided into a number of small monarchies, but in the year 1871 these were united to form one strong nation. Each little country takes care of its own affairs, as our provinces do, but the King of Prussia, the largest of the states, is the head of the United German nation. The people choose the lawmakers. Such a combination



Cologne, on the lower Rhine.



The Falls of the Rhine, on the border of Switzerland.

of countries in one great monarchy may be called an *empire*, and the ruler, an *emperor*. What other

empire do you know of?

The Germans are a busy and thrifty people. Every bit of land that can be made to yield crops is carefully planted, and even the steep hillsides along the rivers are dug away so as to form steps or terraces, which are set out with trees and vines. Women and girls do much of the outdoor work, for the boys must go to school, and every able young man must be a soldier for one year or more.

Grapes and potatoes are grown in the hilly lands; rye for bread, and beets for sugar in the

The German Empire and the Netherlands.

Find the German Empire on the map. What waters on the north? What countries east? South? West? In what direction does most of its surface slope? What river of the German Empire flows to the Black Sea? Into what seas do all the other streams flow? What is the name of the river in the western part? The river Rhine is famed for the beauty of the vine-clad, castle-crowned hills by which it is bordered.

The broad plain sloping northward to the Baltic and North seas is the home of the Germans. When first known they were savage, warlike tribes. They are still the finest soldiers in Europe, but they are just as much noted for their learning. Their schools and universities, their art galleries and their libraries, are among the best in the world. Many people go to Germany to study music, for

level lands. About a hundred years ago, a German chemist discovered that sugar could be made from the beets of the temperate zone as profitably as from the sugar cane of the torrid zone, and now nearly all the sugar used in Europe is beet sugar. Beets are grown for this purpose in all the countries of the European plain, but particularly in Germany. The sliced beet is put into hot water to extract the juice, which is then boiled down and purified as cane sap is, to separate the sugar from the syrup. The portion of the beet which is left makes good food for cattle.

Germany manufactures many things besides beet sugar. She ranks next to Great Britain among European nations in the quantity of coal mined and in the amount of iron and steel made. Woolen, cotton, and linen cloth are also manufactured. In some of the villages of Germany nearly every house is a little factory, in which the people weave cloth, or carpets, or the beautiful lace for which the Germans are famous.

Find Berlin on the map. After London and Paris it is the largest city in Europe. It is the capital of the empire. Where is Ham-



Water which collects on this land is pumped out by windmills.

What countries border the Netherlands? On the coast of what sea is it? What river flows across the country? Almost the whole of the Netherlands lies in the great delta of this river. What, then, would you expect the surface and soil of the country to be?

Netherlands means "lowlands." This state is also called Holland.

Many years ago the sea covered a large part of the country, but the people built *dikes*, or walls of earth, into it so as to shut in a shallow part. When the dike was finished the water was pumped out of the basin inclosed, and in a short time the land thus gained from the sea was ready to be plowed and sown with grain. Many such dikes have been built, so that now much of

the surface of the Netherlands, in the west and southwest, is below sea level. Any water which collects on this land is pumped out by windmills. Above the flat, green country the great sails of these windmills flutter like the wings of gigantic birds.

Canals cross almost every part of the country. Some of the larger canals are for boats and barges; some are to drain the land, and others take the place of fences. In winter, when these canals are frozen, men, women,



A Dutch milkmaid.

burg? It is one of the greatest seaports on the mainland of Europe. On what river is Cologne? It is the center of a great manufacturing region and is famous for the *cologne water* made there.

Many German immigrants come to our country every year.



In Amsterdam many of the streets contain canals.

and children go about on skates, and almost all the trade is carried on over the ice.

The people of the Netherlands are called Dutch, and are nearly related to the Germans. They are noted for their industry, and there are no better farmers in all Europe. They raise grain and potatoes, but the Dutch are best known for their butter and cheese, for the moist lowlands make excellent pasturage. Not enough grain is produced to feed the dense population, but dairy products and cattle are exported.

Some of the large islands southeast of Asia, some of the West Indies, and a part of Guiana in South America belong to the Dutch. Drugs, coffee, and spices are sent from these colonies to the mother country, and from there to all parts of Europe and America.

Find Amsterdam. It is surrounded by strong dikes. Many of the streets contain canals, so that you may look out of your hotel window and see a white sail in the street before your door. Many of the diamonds from the mines in Africa are sent to this city to be cut and polished. It is the largest city of the Netherlands, and one of the busiest seaports in Europe. It is sometimes called the capital of the Netherlands, but the queen resides, and the laws are made, at the Hague.

New York city was first settled by the Dutch.

Make a sketch map of Europe, showing the German Empire and the Netherlands.

THE GERMAN EMPIRE AND THE NETHERLANDS.

- I. LOCATION AND BOUNDARIES. Of the German Empire.
Of the Netherlands.
- II. SURFACE AND DRAINAGE.
- III. DIKES AND CANALS. Their uses.
- IV. OCCUPATIONS AND PRODUCTIONS.
- V. PEOPLE AND GOVERNMENT.
- VI. CITIES. Berlin. Hamburg. Amsterdam.

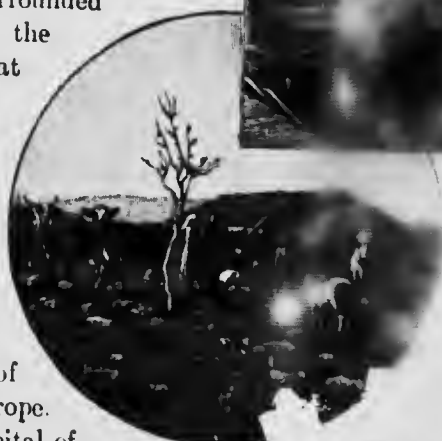
The Norse Countries.

In what part of Europe is the Scandinavian peninsula? What two countries does it contain? What country occupies a peninsula and some islands south of Sweden? What straits separate Denmark from Norway and Sweden? Between what seas is Denmark? What waters nearly surround Norway and Sweden? Which of these two countries borders the Atlantic?

Norway, Sweden, and Denmark are sometimes called the Norse countries, or countries of the Northmen. These bold sailors overran



Fishing boat in Norway.



A farmyard in Sweden.

Leif Ericson discovered Iceland, Greenland, and even America long before the time of Columbus. Many of the deep bays, or fjords, indent the rocky coast of Norway. These bays were known as Vikings.

Although Sweden and Norway are separate countries, each with its own king and parliament, yet the languages and the customs of the two peoples are very much alike.

Cattle, sheep, and grain are the chief farm products, but in Norway, where much of the surface is too rough for farming, the fisheries and the forests give employment to many people. The cod and herring fisheries of Norway are among the most important in the world. Spring is the season of cod fishing, when millions are caught, dried, and sent to different



Street in Copenhagen, Denmark.

European countries. Herring come to the coast twice a year, summer and winter. The Norway pine is one of the very best kinds of timber. Some of it is used at home for ship-building, and much of it is exported to different parts of Europe.

What are the capitals of Sweden and Norway?

Every summer travelers go to the northern part of Norway to see the beauties of the bold rocky coast, with the glacier-filled valleys, and to watch the midnight sun. In what zone is the northern part of Norway? What is meant by the "midnight sun"? (See p. 18.)

The surface of Denmark is low and sandy. The sand in the west is blown up by the wind into hills, or dunes, along the seashore. These are generally planted with grass, so that the roots shall keep the sand from blowing inland and covering the farms.

Grain is grown and cattle are raised on the islands; cattle, horses, and sheep are raised on the mainland. The Danes control the fisheries of Iceland and Greenland.

Find Copenhagen. It is the capital of the Kingdom of Denmark, as well as the largest city. It is noted for its libraries, museums, and art galleries.

Though not nearly so many people come to our country from these northern peninsulas of Europe as from the German Empire and Ireland, the number of such immigrants is increasing. Many of them settle in our country, and become industrious farmers and useful citizens.

Make a sketch map of Europe, showing the Norse countries.

THE NORSE COUNTRIES.

- I. LOCATION AND BOUNDARIES. Of Norway. Of Sweden. Of Denmark.
- II. SURFACE AND COAST LINE. Norway. Sweden. Denmark.
- III. OCCUPATIONS. Fishing. Lumbering. Farming.
- IV. HISTORY AND GOVERNMENT.
- V. CITIES.

Austria-Hungary and Switzerland.

What countries surround Austria-Hungary? Has it any seacoast? What part of it lies in the Alpine region? This part is called the Tyrol. What mountains in the eastern part? Most of its surface is occupied by the basin of one great river; what is its name?

Southeast of the German Empire is another great empire containing many German-speaking people.



Music hall and city park in Vienna.



Bridge over the Danube at Budapest.

This empire is formed of two countries, Austria and Hungary. *Austria* means "eastern kingdom." Part of the German Empire was once called the "western kingdom." Hungary was named after a people of the yellow race, called Huns, who came from Asia many years ago. Many people of the yellow race still live in Hungary. They long ago adopted the habits and manners of other Europeans, but still look



Swiss cottages on the steep Alpine slopes.



An Alpine peak — The Matterhorn.

largest libraries in Europe. The people are noted for their love of music and gaiety.

Budapest, on both sides of the Danube, is in the midst of the Hungarian wheat fields, and is a great flour-milling center.

What is the name of the little country between the Tyrol and France? What countries border Switzerland on the north and on the south? What can you say of the size and surface of Switzerland?

Switzerland is one of the smallest countries of Europe. It is so high up in the Alps that about one third of its surface is always covered with snow.

The slopes of the Alps furnish much rich pasture, and the Swiss cheese is famous the world over. Where the hills are too steep for carts, the peasant women in their big wooden shoes may be seen bearing great bundles of hay on their heads down to the valleys far below.

Many of the picturesque little cottages and barns of the herdsman look as if they might slip down the steep mountain slopes upon which they are built.

In the towns and villages of Switzerland watches, music boxes, and carved wooden toys are made. Many of these goods are exported to America. Until a few years ago the high ridges of the Alps

and speak somewhat like the race to which they belong.

The great treeless plains of Hungary, drained by the Danube, are noted for the quantity and excellence of their wheat and corn.

There are many factories of linen cloth in Austria-Hungary, and the Bohemian glass made there is famous. The people of the Tyrol are hardy mountaineers. They are herdsman and noted wood carvers.

What is the name of the capital of Austria-Hungary? This is one of the largest and most beautiful cities of Europe. The residence of the emperor in Vienna contains one of the



▲ Swiss street cart.

prevented the Swiss people from trading much with the people of Italy, but now the longest railway tunnel in the world has been dug through the Alps from one country to the other.

German is spoken in the north of Switzerland, French in the west, and Italian in the south. The Swiss are as brave as they are clever, and for many years have held their little country as an independent republic.

Find Geneva. It is on a beautiful lake of the same name. Zurich is the largest city of Switzerland. Bern is the capital.

Many tourists visit Switzerland to see its glaciers and grand mountain scenery.

Make a sketch map of Europe, showing Austria-Hungary and Switzerland.

AUSTRIA-HUNGARY AND SWITZERLAND.

- I. LOCATION AND BOUNDARIES. Austria-Hungary. Switzerland.
- II. SURFACE. Alps. Carpathians. Danube basin.
- III. COMPARISON. People. Industries. Governments.
- IV. CITIES. Vienna. Budapest. Geneva.
- V. SCENERY. Mountains. Glaciers. Lakes.

France and Belgium.

What country south of England? What separates it from England? What countries east of France? What country southwest? What bay west?

To what plain does most of the surface of France belong? In what direction do most of the rivers flow? Name them. Name one river flowing south. Most of these rivers are navigable and are connected by canals. Is France well fitted for internal trade?

What waters wash the coasts of France? This country is connected by railways with Middle Europe, and with Italy by a long tun-

nel through the Alps. Is France well situated for foreign commerce?

Where is the island of Corsica? It is a part of France. France owns a large part of northern Africa, too, with which she trades across the Mediterranean. What country does France own in South America?

What is the name of the small country northeast of France? About half the people of Belgium are nearly related to those of

northern France, and speak a similar language; the other half are more like the Dutch in speech, appearance, and manners.

Both in France and in Belgium the land is cultivated with the greatest skill, and produces abundantly. In some places the thrifty farmers have even drained the water from the lakes and marshes in order to cultivate the land it



Wheat harvest in France.



French washerwomen.

once covered. Along some parts of the coast of Belgium dikes have been built, as in the Netherlands, and many miles of land have been gained for grain fields and pastures in this way.

In northern France and in Belgium the cli-

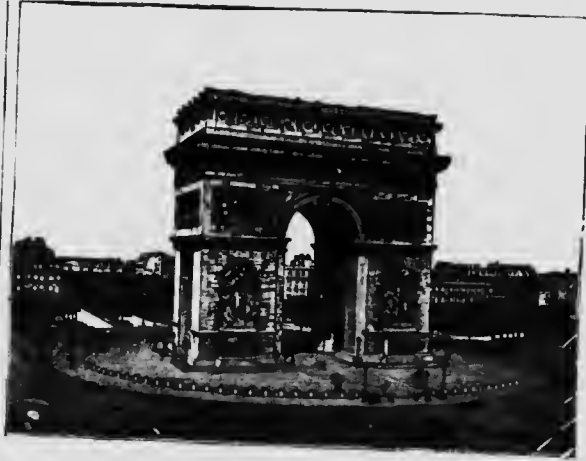
mate is cool and moist, and the land is level. Wheat and sugar beets are the chief crops. No country in Europe except Russia raises so much wheat as France, but the French people eat so much bread that all the wheat raised there and more is needed for their food.

The south of France is much warmer than the northern part. The surface is rough, and instead of wheat fields there are vineyards, olive orchards, and rows of mulberry trees. The vineyards yield the most important crop of the country, and much wine is made. Some of the best olive oil comes from France, where it is pressed from the fruit of the olive tree. But one of the chief employments of southern France depends upon the mulberry tree.

Silk is a fiber that the silkworm spins. It is something like the strand of a spider web. The silkworm is a kind of caterpillar. It feeds on the leaves of the mulberry tree, and so this tree is grown with great care. When the worm is full-grown it spins a cover about itself, winding the fine strand of silk round and round its body until it is wholly covered in a case called the *cocoon*.

The cocoons are softened in hot water, and the silk fibers are wound off upon spools. The fibers are spun into silk thread, which is woven into cloth. More silk goods are made in France than in any other country in Europe.

Where is Paris? Next to London it is the largest city in Europe. Its streets are decorated with marble arches, columns, and statues, and planted with rows of



The Arch of Triumph, Paris.

trees. On summer evenings one may see people sitting at little tables along the sidewalk, before the cafés, taking refreshment and chatting gayly. In the galleries of Paris are many pictures and statues brought from Italy and other countries once conquered by the French. Students from every part of the world go to Paris to study painting, music, medicine, and science. Beautiful pottery is made near this city. Where is Lyons? Most of the silk of France is woven there. Find Bordeaux. It is in the midst of vineyards, and wine is its chief export. What is the seaport of southern France?

For a long time France was a monarchy, but it is now a republic.

The small Kingdom of Belgium has so many large cities that it is one of the most thickly peopled states in the world. Because of the careful cultivation of the land, Belgium has been called the "Garden of



Market place, Lyons.



A milk cart in Brussels.

Europe;" because the neighboring nations have fought so often on its territory, it has been called the "battle ground of Europe."

What is the capital? It is noted for the carpets and the lace made there. Antwerp is a large and busy seaport.

In former times some of the best people of France came to North America to live. Many of them settled in South Carolina, and in the cities of New Orleans and Mobile, where their descendants are among the most prosperous citizens.

Make a sketch map of Europe, showing France and Belgium.

FRANCE AND BELGIUM.

- I. LOCATION AND BOUNDARIES. France. Belgium.
- II. SURFACE AND DRAINAGE. France. Belgium.
- III. CLIMATE AND PRODUCTIONS. In the northern part. In the southern part.
- IV. SILK INDUSTRY. Mulberry tree. Silkworm. Manufacture.
- V. CITIES. Paris. Lyons. Bordeaux. Brussels.

Spain and Portugal.

What two countries occupy the peninsula at the southwest extremity of Europe? What country and water north of Spain? What waters east and south? What group of islands east? These islands belong to Spain. What water west of Portugal?

The Spanish peninsula is a high plateau crossed by several mountain ranges. What range between Spain and France?

The plateau is hot in summer and cold in winter, and so dry and rough that both farming and commerce are difficult. So the peninsula is the least thickly set-



Street scene in a Spanish city.

tlated part of western Europe. (See small map, p. 101). Most of the people live on the slopes near the coasts, where there is more rainfall, and in the deep river valleys of the interior, where water can be had to irrigate the farms. Which river flows southeast? Which rivers flow westward?

These slopes and valleys are among the best of fruit-growing lands. Oranges, lemons, limes, English walnuts, and almonds are sent to the countries of northern Europe. Olives and olive oil are also exported.

Many kinds of grapes are grown, so this is a great wine-producing region. A great many of the grapes are dried into raisins on the warm ground. Cork is also produced. It is the bark of a kind of evergreen oak.

Peas, onions, and garlic are raised, and with Indian corn, which is raised in the west, form the chief food of the people. On the dry highlands large herds of merino and other kinds of sheep find pasturage.

The great wealth of Spain is in its minerals. Its copper, lead, and quicksilver mines are very rich, and much valuable iron ore is



Spanish milkman.



Spanish peasants.

shipped to England, chiefly from the port of Bilbao. Where is this port?

Spain and Portugal are both kingdoms. After the discovery of America, Spain was rich and powerful; she owned much of Europe and nearly all of America, and had ships on every sea. The Portuguese also were great sailors, and had rich colonies in those days. They were the first to sail to Asia around the south end of Africa, and Magellan was a Portuguese sailor. But both kingdoms have lost most of their colonies, and are now neither very rich nor very powerful.

What strait separates Spain from Africa? On the Spanish shore of this strait is a high cape called the Rock of Gibraltar. Many years ago the English drove the Spaniards away from this rock and made there the strongest fortress in the world, which Great Britain still holds. This fortress is important because it commands the narrow entrance to the Mediterranean Sea.

Madrid, the capital and largest city of Spain, is in the desolate plateau region. The nights are almost always cold, but the days are often so warm that nearly every one takes a *siesta*, or nap, in the middle of the day. Barcelona is the greatest commercial city. Where is it? Find the capital of Portugal. Where is Oporto? It is in a great wine-producing region.

Make a sketch map of Europe, showing Spain and Portugal.

SPAIN AND PORTUGAL.

- I. LOCATION AND BOUNDARIES. Spain. Portugal.
- II. SURFACE AND CLIMATE.
- III. PRODUCTIONS. Fruits. Cork. Minerals.
- IV. PEOPLE. Distribution. History. Cities.



An Italian cart.

Italy.

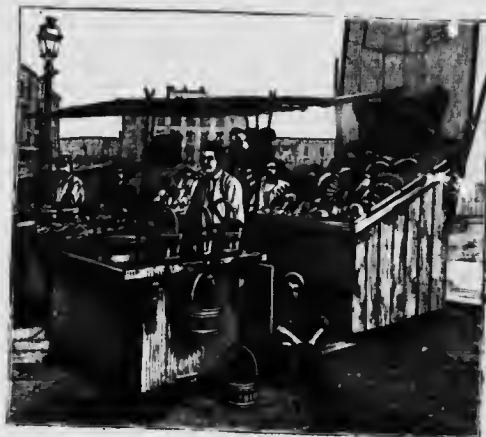
What is the middle peninsula of southern Europe? It is occupied by the Kingdom of Italy. By what waters is it nearly surrounded? What islands west? To what country does Corsica belong? What island southwest? Sardinia and Sicily are parts of Italy. What high mountains on the northern border? What range of mountains extends the whole length of the peninsula? Where is the river Po?

Of all the countries of Europe, Italy is the most famous. More than twenty-five hundred

years ago some people settled near the middle of the west coast of Italy and built a village, which grew into the great city of Rome. The city became the center of a strong nation which conquered all of Italy. As

years went by, the Romans conquered all southern and western Europe, and a large part of Asia and northern Africa, and formed the great Roman Empire. Afterward parts of this empire rebelled and formed independent states, and other parts were conquered and annexed by other nations, so that the Roman Empire was entirely destroyed. Even the Latin language used by the Romans ceased to be spoken.

Italy is the state in which the language and customs are most like those of the Romans. The farmers of Italy are industrious, and the merchants are good traders. Many of the educated people are skillful in painting and sculpture.



An Italian market place.

ture. All the people are fond of music, and love their bright, sunny land.

Wheat, corn, oats, and rice are the chief crops in the plains of the Po and in the level river valleys. More raw silk is produced than in any other country of Europe. Oranges, olives, wine, and chestnuts are sent to other parts of Europe and to America.

Find Rome. It is the residence of the King of Italy, and of the Pope, who is the head of the Catholic Church. The Pope's palace, called the Vatican, is near St. Peter's, the largest church in the world. Rome is famous for the ruins of its ancient buildings. Among these is the Coliseum, which was used by the ancient Romans as a sort of circus. It could hold as many people as would make a good-sized city.

Where is Naples? It is the largest city of Italy. Much macaroni is exported from this city. Near by are the ruins of Pompeii, a city buried nearly two thousand years ago by ashes falling from the neighboring volcano, Vesuvius. After hundreds of years the ruins were accidentally found, and much of the old city has been uncovered.



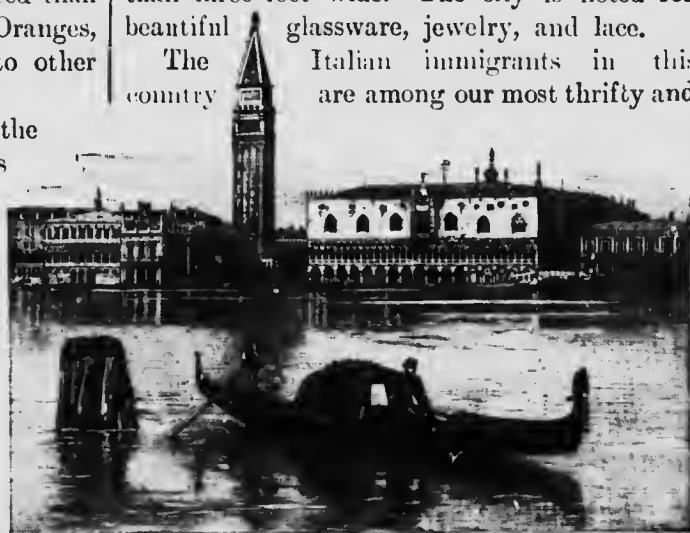
Ruins of the Coliseum, Rome.

Find Milan. It is the chief market in the plain of the Po.

Where is Venice? In the days of Columbus it was the greatest commercial center. It is built on some low islands, about 120 miles

from the shore. Canals take the place of the main streets, and the people go about in boats instead of in wagons or street cars. The paved streets are very narrow, some of them not more than three feet wide. The city is noted for beautiful glassware, jewelry, and lace.

The Italian immigrants in this country are among our most thrifty and



In Venice the people go about in boats.

industrious laborers. Nearly all of our street "organ-grinders" are the music-loving Italians, and many of the fruit stands at the street corners in our large cities are kept by men or women who were born on the warm fruit-producing slopes of Italy.

Make a sketch map of Europe, locating Italy.

ITALY.

- I. LOCATION AND BOUNDARIES.
- II. SURFACE. Mountains. Po basin.
- III. PEOPLE AND OCCUPATIONS.
- IV. GOVERNMENT.
- V. ROME. Former greatness. Present condition.

Greece.

Name the eastern peninsula of southern Europe. What mountains are partly contained in it? What water east of Greece? Most of the islands in the Aegean Sea belong to this state.

When Rome became an empire, and spread her language, laws, and customs all over west-

ern Europe, the Romans really taught the civilization they had learned from the Greeks, and therefore when Europeans settled America, it was the Grecian civilization which they brought with them. So the civilization which we have to-day started in ancient Greece.

All that remains of the Greek nation is the small kingdom south of the Balkan plateau. The language is much like that of ancient Greece, and the people are still among the foremost traders and sailors of southern Europe, but almost all the nations that learned civilization of the Greeks are now more prosperous than they.

The country is mountainous, and the very crooked coast line is fringed with mountainous islands, several of which are volcanic.

Wheat and barley are cultivated in Greece, and excellent figs and honey are also produced; but the most important product is the small dried grapes which in commerce are known as *currants*.

Athens, the capital, is noted for the ruins of its beautiful ancient buildings (see picture on p. 102); but most of the beautiful statues which ornamented these buildings have been removed to the museums of London, Rome, or Paris.

Make a sketch map of Europe, showing Greece.

GREECE.

- I. LOCATION AND BOUNDARIES.
- II. SURFACE AND PRODUCTIONS.
- III. CIVILIZATION. In ancient Greece. In the Roman Empire. In America. In modern Greece.
- IV. ATHENS.



Greek in native dress.

Russia.

What is the most eastern country of Europe? Compare it with the other countries in size. What land east of Russia? What waters north? What waters and countries west? South? What sea or lake southeast? Is the surface mostly flat or mountainous? In what parts are there mountains? In what two directions does the surface slope? Trace on the map the main divide of Russia.

Russia is the European part of the great Russian Empire, which extends eastward over northern Asia and southward beyond the Caucasus Mountains.

Through what waters must a vessel pass in sailing from Odessa, on the Black Sea, to St. Petersburg? From St. Petersburg to Archangel, on the north coast? Because coasting trade from one coast of Russia to the others is so difficult, the rivers of the country are greatly used for commerce, and they are connected by canals across the

main divide, so that goods can be carried by river and canal from the Black Sea or the Caspian to the Gulf of Finland or the Arctic Ocean.

In what zone is the greater part of Russia?



A Russian carriage.



Russian farmers.

In what other zone is part of it? Nearly all of Russia is farther north than the Great Lakes of America. Even in the south the rivers are frozen over for several months in winter. During the short, warm summers of northern Russia only the surface of the ground thaws and as the water cannot sink into the frozen earth beneath, the whole region becomes a swamp called a

tundra. Coarse moss covers this region. Farther south a great forest region occupies nearly one third of Russia. In the southwest are open plains, on which great quantities of food stuffs are grown. This is therefore the most thickly peopled part of the country. In the southeast so little rain falls that the fertile prairies give place to arid plains, called *steppes*.

Most of the people in Russia belong to the white race. But some belong to the yellow race, as the Finns, who live north of the Gulf of Finland and are the dairymen and lumbermen of Russia; the Lapps and Samoyedes in the far north, who are hunters and fishers; and the Calmucks and Cossacks in the far south, who raise great herds of sheep, cattle, and horses.

Farming is the chief occupation of the people, and grain and flax are the chief crops. More rye is grown than in any other country, and rye bread is the common food in Russia. Much more wheat is raised than is needed at

home, so Russia, like our own country, sells great quantities of this valuable food to the thickly settled countries of western Europe.

Much of the flax is sold to Great Britain, to be made into linen cloth. But in southern Russia the flax is grown for its seed, from which linseed oil is made.

The farmers rarely live on their farms as in this country. A number of families are grouped into a village, or *mir*, which holds the surrounding farm lands and divides them among the villagers.

There are fewer mills and factories in Russia than in western Europe. Cotton and woolen cloths are made in some of the large cities, but most of the cloth used by Russian peasants is woven by their families during the long winters.

Petroleum is an important production of Russia. Find Bakn. Although south of the Caucasus Mountains, it is in

Russia. In the neighborhood of this town are the largest petroleum wells in the world. More petroleum is produced in this region than anywhere else except in the United States. Part of it is shipped by the Caspian and



A Russian church.



Farmer's cottage in Russia.

Volga to the interior of Russia, and part by railway to Batum, on the Black Sea, for export.

There is much trade in Russia by means of fairs, to which merchants come from other parts of Europe and from Asia. Find Nizhni Novgorod. A fair is held here every summer, where many thousand people buy their stocks of goods. For three months, when the fair is in progress, the river is filled with boats, and the

city with a bustling crowd of people, bargaining in its thousands of shops, or visiting its cathedral, its hotels, or its theaters. During the other nine months, not a human being is in sight in that part of the city: all is silent, and weeds and grass grow in its deserted streets.

The ruler or head of this great empire is called the *czar*. He both makes the laws and sees that they are executed. Such a government is called a *despotism*.

Find St. Petersburg. It is the capital of Russia and is one of the largest cities of Europe. Where is Moscow? It is the railway center of Russia. Odessa is a great grain market and the shipping point of southern Russia.



Scene in Constantinople.

Make a sketch map of Europe, showing Russia.

RUSSIA

- I. LOCATION AND SIZE.
- II. PLAIN. Extent. Surrounding mountains. Bordering seas. Regions: tundra, forest, prairie, steppe.
- III. OCCUPATIONS. Farming. Grazing. Manufactures. Mining.
- IV. TRADE. Routes. Fairs.
- V. PEOPLE AND GOVERNMENT.

States of the Balkan Peninsula.

What five small countries that you have not yet studied adjoin one another in southeastern Europe? What sea east of this region? What sea south? What sea west? What river flows through this region to the Black Sea? What mountains border this part of the Danube basin on the south? The part of Europe to the southeast of Austria-Hungary is often called the Balkan peninsula. Why?

Turkey, like Russia, is a despotism. The ruler is called the *sultan*. But the laws made by the sultan are much more selfish and oppressive than those made by the czar.

Many hundred years ago the Turks, a fierce

race of yellow people who had conquered much of western Asia south of the Black Sea, crossed over into Europe and added the whole Balkan peninsula to the great Empire of Turkey.

Most of the people of the Balkan peninsula belonged to the white race and were Christians, while the Turks belonged to the yellow race and believed in the Mohammedan religion; thus the customs of the

two peoples were very different. The Turks were cruel to the Christians, and robbed and oppressed them. Hence the Christians were discontented, and often tried to free themselves from Turkish rule.

About seventy years ago, Greece,

aided by other Christian countries of Europe, succeeded in becoming independent. Afterwards Roumania, in the same way, freed herself from Turkey and became a kingdom. Still more recently Serbia and Montenegro became inde-

pendent monarchies, while Bulgaria, though still supposed to pay tribute to Turkey, has her own ruler, the *prince*, and is really an independent state.

Thus all that is left of Turkey in Europe is a narrow strip between Greece and Bulgaria, though the Turkish Empire



Turkish water carrier.

still includes much of western Asia. About half the people in European Turkey are Christians, and they are still trying to free themselves from the Turks.

Romania and much of Bulgaria lie in the fertile valley of the Danube, and from them great crops of grain are sent down the river for export. There are many vineyards and rose farms on the slopes of the Balkan Mountains, and wine and the famous perfume, attar of roses, are made there.

The language of Roumania, unlike the languages of the neighboring countries of Eastern Europe, is something like the Latin, and it is thought the people are the descendants of Roman colonists who settled in that region nearly two thousand years ago.

What is the capital of Roumania? Of Bulgaria?

Servia and Montenegro are rough and mountainous, and are largely covered with forests. Corn forms the chief food of the people, and is grown in the river valleys. The wealth of the country consists in the herds of swine and cattle. What is the capital of each country?

The people of Turkey have been so badly governed that they are wretchedly poor. They have little wealth besides the forests and the herds of cattle and sheep. Small amounts of grain, tobacco, silk, and wine are produced. Turkish carpets and rugs made by hand are sold in Europe and America.

What sea is between the Black Sea and the Ægean Sea? What strait connects this sea with the Ægean Sea? With the Black Sea? What city is on the Bosphorus? Constan-



A fruit peddler in Bukharest.



A Turkish cart.

tinople is the capital of the Turkish Empire. It contains the beautiful palaces and gardens of 'tan, and many fine *mosques*, or Mohammedan churches; but most of the houses are miserable hovels built of wood, and in consequence widespread conflagrations are common. The streets are narrow, filthy, and without sidewalks. The fine harbor is called the Golden Horn.

Make a sketch map of Europe, showing the Balkan peninsula.

BALKAN PENINSULA.

- I. LOCATION AND BOUNDARIES.
- II. THE TURKS. Character. Religion. Government.
- III. STATES OF THE PENINSULA. Names. Products.
- IV. CONSTANTINOPLE. Location. Buildings. Streets.



Sheep on the steps of a Turkish mosque.

REVIEW EXERCISES.

Position and Climate.—What and where is Europe? How would you go from your home to its largest city? How long would it take to go? Which is farther north, Europe or the inhabited part of Canada? How do they compare in climate?

Food for the People.—How does Europe compare in size with the Dominion? Which has the more people? What small kingdom in Europe is one of the most thickly peopled states in the world? Does Europe produce the food for all her people? Why not?

Where are the grain-growing regions of Europe? Why are they suited for grain growing? What grains are raised? In what river basins of America is grain grown for European countries? Where are the grazing regions of Europe? Why are they suited for grazing? From what countries of America is meat sent to Europe? What are the fishing regions of Europe? What countries are famous for cheese? What countries grow beets for sugar making? Why do they not grow sugarcane? What are the great wine-making countries of Europe? Where are raisins made? Where do oranges and lemons grow? Olives? Walnuts and almonds? Why do these fruits grow in this region?

Manufacture.—In what countries of Europe is manufacture a leading industry? Does Europe manufacture more goods than she uses? Name some manufactured articles which we get from Europe. Name a raw material shipped from the Southern States to Europe. What is made of it? What countries of Europe manufacture cloth? Why are they manufacturing countries? Where is Manchester? What is manufactured there? What country of Europe produces most silk? What is silk? Where is Lyons? What countries produce linen cloth? What countries manufacture iron and steel? Where is Glasgow? What country is noted for its glassware? For its watches? Where is Geneva?

Transportation and Communication.—Are the rivers of Europe as large as those of North America? Which has more inland seas, Europe or Canada? Name the seas on which you think there are large numbers of vessels. Where are they going? Why? What city on the Bosphorus? What city on the Black Sea is the grain market for Russia? What city on the North Sea is the leading port for German steamship lines? What is the largest seaport in the Netherlands? Where is Liverpool? What facilities has Europe for internal trade? How is it connected with America? What nation first built roads in Europe? What famous mountains have been tunneled? Why?

Government.—What does the British Empire include? What and where is its capital? What is its

form of government called? What is the form of government in the Dominion? How does a monarchy differ from a republic?

Name and locate the five empires in Europe? What is the capital of each? What is the form of government in Spain? Portugal? Norway and Sweden? Denmark? The Netherlands? Belgium? Italy? Greece?

Name the republics in North and South America. What little, mountainous country of Europe has long been a republic? Where is it? What large and very important country of Europe is a republic? Name the republics of North America. Name the republics of South America. What were these countries before they became republics? What is Canada now?

Civilization.—Are the people of America savage or civilized? From what grand division was civilization brought to America? What savage race owned America before the Europeans took possession of it? Were the Europeans themselves ever in a savage condition? In what part of Europe did the people first become civilized? Where is the Grecian peninsula? What people conquered the Greeks and learned civilization from them?

Tell five things which are done in the Dominion to-day which the Indians have not yet learned to do. Do uncivilized people build large cities and fine buildings? What great city did the Greeks build? What was the most famous city in the Italian peninsula?

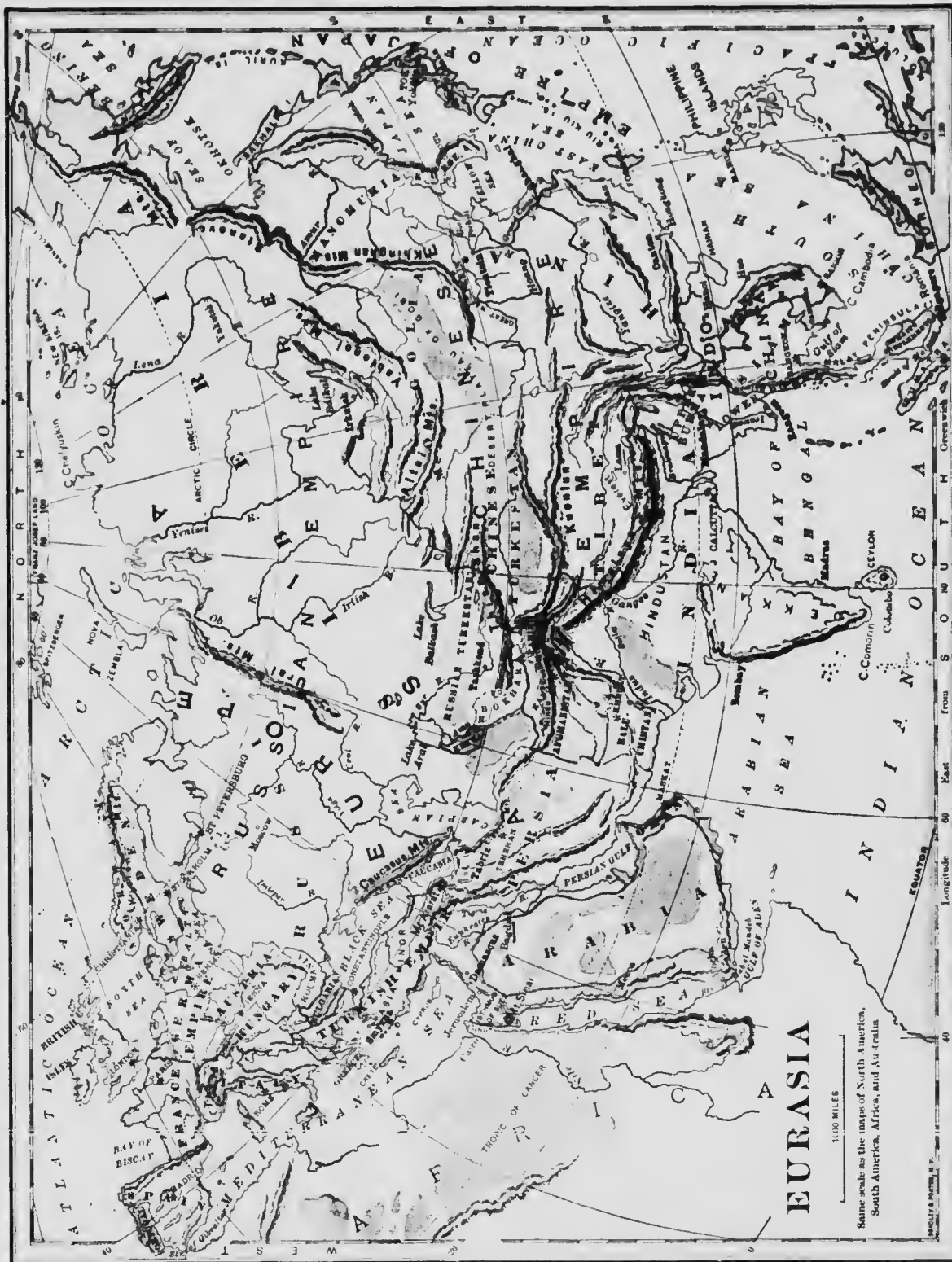
What did the great Roman Empire include? Into what countries of Europe did the Romans carry their civilization? What is true to-day of the languages spoken in all the countries of southwestern Europe? In what countries of North and South America do the people speak the Spanish language? The Portuguese? What civilization did the Europeans bring to America? What do you think is the most highly civilized grand division of the world? Why? What great country of Europe has been the last to learn civilization? Name one leading industry of western Europe and northeastern United States which is as yet but slightly developed in Russia. What European country is hardly yet connected among civilized nations?

Name the three chief cities of Europe in the order of their size.

Make a list of the capital cities of Europe.

Name the great European seaports, and tell what ships take away from each.

Name the great European manufacturing cities, and tell what is made in each.



EURASIA

1,000 MILES

Same scale as the maps of North America, South America, Africa, and Australia.

WILSON & BENTLEY, N. Y.

Position and Coast.

What is the eastern part of Eurasia called? Follow with your pencil the boundary between Asia and Europe, naming the mountains, river, and seas which lie on this boundary. (See map, p. 100.) How does Asia compare with Europe in size? Asia includes about one third of the land surface of the world.

In what zones is Asia? In what zone is the greater part? What ocean is north of Asia? What ocean is east? What strait separates Asia from North America? What ocean is south of Asia? What two seas are west of southwestern Asia? What isthmus connects Asia with Africa? What canal crosses this isthmus? What is the use of this canal? Name the strait through which the Red Sea opens. This name means "gate of tears."

What great bay and sea are south of Asia? Name six seas that wash the eastern shores of Asia. How are most of these seas separated from the rest of the Pacific Ocean? Name two

ASIA.



A pass in the Caucasus Mountains.

peninsulas of eastern Asia. Name three peninsulas of southern Asia.

On which side of Asia are there many islands? From Formosa northeast to Kamchatka stretches a long chain of islands. What is its name? Where are the Philippine Islands? Sumatra, Borneo, and Celebes?

Many of the islands east and southeast of Asia contain volcanoes, from which terrible outbursts sometimes occur.

Practice making a sketch map of Asia.

POSITION AND COAST OF ASIA.

- I. LOCATION. Zones, Boundaries
- II. EACH COAST LINE. General direction. Projections. Indentations. Islands.

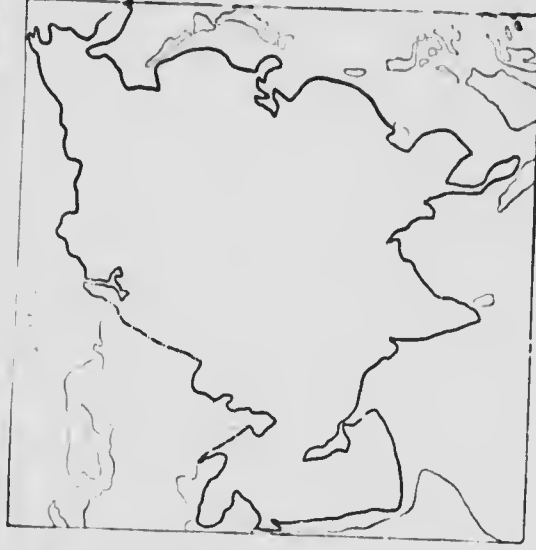
Surface.

(With this lesson, use the map on p. 94.)

Does most of Asia lie in the highland or in the lowland part of Eurasia? Find the region from which all the high mountain chains seem to extend. This high mountain-crowned region is called the Pamir plateau or the "Roof of the World."

From the Pamir plateau a succession of mountain ranges stretches westward to the Black Sea, and three chains extend eastward—one to the northeast, one to the east, and one to the southeast.

What is the westward range



called east of the Caspian Sea? South of the Caspian Sea? Between the Caspian and the Black seas? From these ranges a low plateau extends southward nearly to the coast. A broad lowland, near the head of the Persian Gulf, divides this plateau into two parts. What is the eastern part of the plateau called? The southwestern part? What plateau is south of the Black Sea?

The mountain chain extending northeast from the Pamir plateau consists of many short, irregular ranges, known by different names in different parts. Name three of these ranges. The mountains extending southeast from the Pamir plateau are the loftiest range on the earth. Mount Everest, their highest peak, is over five miles high. What range of mountains extends eastward from the Pamir plateau?

Between the Himalaya Mountains and the Kuenlun is the highest large plateau in the world. It is twice as high, and almost as large, as the western highland of the United States. What is its name? What desert is between the Kuenlun and the Altai Mountains? It is a low plateau. What do you think about its climate? The plateau of Tibet is also dry, but being much higher is much colder than the Desert of Gobi.

These dry highlands produce little wealth, except animals valuable for their wool and hair. The herding of sheep, goats, camels, and yaks is the chief occupation. The yak is a hairy animal much like the ox.

The highlands are so broad and the mountains so lofty that they form a nearly impassable barrier between northern and southern Asia.

Like the peninsulas of Europe, the Asian peninsulas are either mountainous plateaus or spurs from the Eurasian highland.

The islands off the east coast of Asia are also really mountain ranges, the valleys between being covered by the ocean, and forming partially inclosed seas.

Northern Asia is a great lowland plain much like northern Europe. Along the Arctic Ocean is a frozen, moss-grown tundra; farther inland

there are extensive forests; still farther south are open prairies, which in the southwest give place to steppes, covered with coarse grass.

Among the eastern and southern highlands are many broad lowland plains. Such are the plains of the Hoang, the Ganges, and the Indus rivers.



A flock of sheep in Tibet.

Model Asia; show mountains, plateaus, and lowlands.

SURFACE OF ASIA.

- I. HIGHLANDS. Extent. General direction. Plateaus: Pamir; Tibet; Gobi; Iran; Asia Minor; Arabia; Dekkan. Mountains: Himalaya; Kuenlun; Thian Shan; Hindu Kush. Peninsulas.
- II. LOWLANDS. Northern plains. Plains of the Hoang. Plains of the Ganges and Indus.

Drainage.

In what direction do the rivers of the great northern plain flow? Name the three largest. All these rivers have branches flowing nearly east or west, and with head waters so near each other that it is only a short distance across the divides. The hunters and fur traders go from Russia far into this plain by means of these rivers.

Name the four largest rivers of the Pacific slope. The Amur flows through one of the best wheat-growing regions of Asia. The Hoang, or Yellow River, is sometimes called "China's Sorrow," because of the loss of life and property caused by its overflows. The Yangtze and the Mekong rise in the high plateau of Tibet and descend to the lowlands in deep gorges or canyons, through which few white men have ever passed.

What two rivers flow into the Bay of Bengal through the same delta? What river flows into the Arabian Sea? These three rivers drain both the north slope and the south slope of the Himalaya Mountains. What rivers flow into the Persian Gulf?

Beginning on the Ural Mountains, draw a line around the great basin whose rivers do not reach the ocean. This interior basin occupies about one quarter of Asia, and contains many large salt lakes. Why are they salt? Lake Aral is nearly as large as Lake Superior. Lake Balkash is another large salt lake.

There are fewer fresh-water lakes in Asia than in North America. The only large one, Lake Baikal, is about half as large as Lake Superior. What river is its outlet? Much trade is carried on over this lake by means of steamboats during summer and by ice sleds in winter.

Sketch Asia; locate its large rivers.

DRAINAGE OF ASIA.

- I. NORTHERN SLOPE. Ob. Yenisei. Lena.
- II. EASTERN SLOPE. Amur; Hoang; Yangtze; Mekong.
- III. SOUTHERN SLOPE. Brahmaputra; Ganges; Indus; Tigris and Euphrates.
- IV. LAKES.

People.

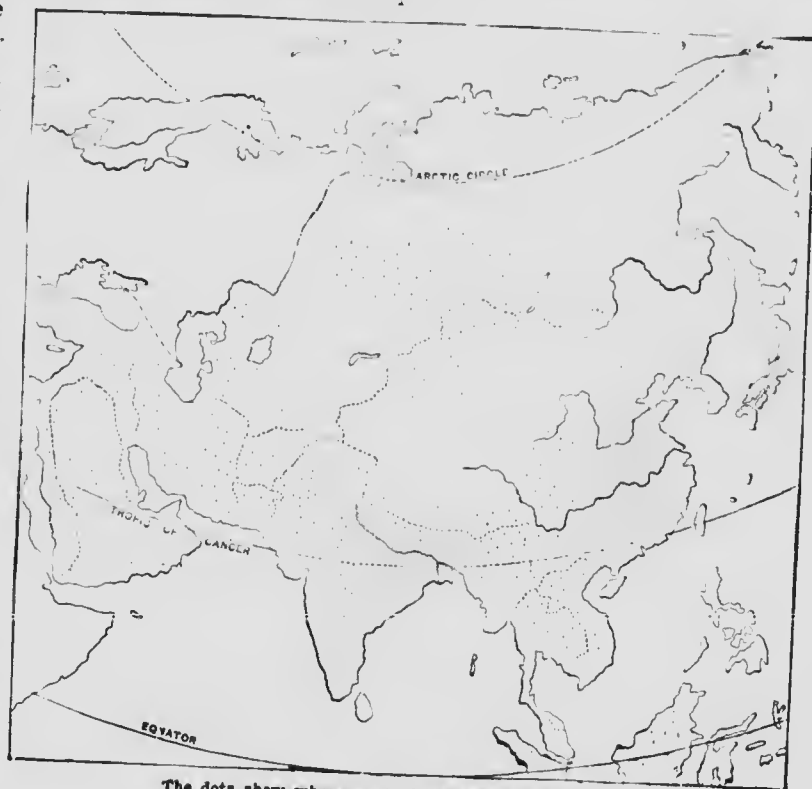
What thickly peopled islands lie east of Asia? What two regions contain most of the people on the mainland? What parts of Asia contain very few people?

The climate of southeastern Asia is so warm and moist that food plants grow there in abundance. Nearly half the people of the world live in this part of Asia.

Where it is too cold or too dry for food plants to thrive, few people are found.

In Asia, even more than in Europe, the people in the various countries differ in language, in religion, and in manner and customs. There are at least three totally different races in Asia.

The people of the yellow race live mainly in the eastern and northern parts of Asia. (See map, p. 96.) How do they differ from people of the white race? What people of this race live in Europe?



The dots show where most of the people in Asia live.

The people of the brown race live mainly in the islands southeast of Asia, and in the Malay peninsula. Many of them are still savages, yet they are generally easy to civilize.

Most of the people of India and of southwestern Asia belong to the white race, though they have darker skin than the people of Europe. It is believed by many that originally the largest branch of the Caucasian or white race lived in the highland region in the neighborhood of the Hindu Kush Mountains, and that from this region they spread south-eastward into India, and westward into the various countries of Europe.

PEOPLE OF ASIA

- I. DISTRIBUTION. Northern plain. Plateau and desert belt. Alluvial plains.
- II. RACES. Caucasian. Mongolian. Malay.

Siberia.

What is the northern division of Asia? In what zones is it? What waters are north of Siberia? What waters east? From what division of North America is it separated by Bering Strait? Describe the surface of Siberia. The drainage.

Siberia is part of the great Russian Empire. Many of the people are of the yellow race. In the north they are hunters and fishers, and in the south they are herders and farmers. But many white people have come into Siberia from Russia. The farmers of Russia can get land in



A Siberian village in winter.



Siberian sledges.

Siberia free from rent, and hence many of them have moved eastward and settled there. In what direction has the settlement of our country advanced?

People in Russia who offend the government are often sent to Siberia as a punishment. If their

offenses are slight, they may live as they choose in the villages of Siberia; but those who receive severe punishment are made to work in the mines. To speak or to write against the government, or to own books in which the government is criticised, is sufficient cause for exile to Siberia, and many are sent for such causes every year.

The mines are the chief wealth of Siberia; they yield much gold, silver, and platinum, a metal somewhat like silver. Some of the best graphite, of which lead pencils are made, comes from Siberia.

In the cold northern part of Siberia are found the bodies of huge hairy elephants frozen fast in the icy soil, and preserved by the cold. Their tusks are sold for ivory.

Central Siberia, like central Russia and central Canada, is a vast



Merchants of Bokhara.

forest region where many animals are trapped for their valuable furs. There are many wolves in these forests.

In the more open region south of the forests a railroad is being built across the whole country from east to west. Most of the inland traffic is now carried on by *caravans* or parties of traders with pack animals. Much of the tea used in Russia is carried from China by these caravans.

Find Tashkend. It is the largest city of Russian Turkestan. Coarse cotton cloth and leather goods are made in the towns and villages near by. Khiva and Bokhara are native states which really belong to Russia. Where is Irkutsk? It is the chief market of eastern Siberia. Find Vladivostok. It is the great seaport of the Russian Empire on the Pacific Ocean.

Sketch Asia; locate Siberia.

SIBERIA.

- I. LOCATION AND SURFACE.
- II. CLIMATE.
- III. PRODUCTIONS. Minerals. Ivory. Furs.
- IV. RUSSIAN EXILES.

Chinese Empire.

In what part of Asia is the Chinese Empire? In what zone is most of it? Of what five countries is it composed? Which of these countries lie in the highland region? Which lies partly in the lowlands? What two great rivers drain the greater part of China? Where do they rise? Into what waters do they empty? Of what ocean are these waters a part? The Hoang River has a great delta.

The Chinese Empire is somewhat larger than Canada, and is the home of the greater part of the yellow race. The four countries belonging to China in the plateau

and desert region of central Asia cover the largest part of the empire, but contain few people. The fertile and thickly settled lowlands of China proper contain nearly one fourth of all the people in the world.

China is one of the oldest of nations. The Chinese printed books and made gunpowder long before these inventions were known in Europe; yet they have made little progress, but live very much as their ancestors did thousands of years ago. They have very little machinery, and what they have is awkward and old-fashioned.

Until a few years ago the Chinese were not allowed to leave their country, nor were strangers allowed to visit it; and even now strangers are seldom allowed to travel in China far from the coast.

The Chinese dress in loose robes or jackets, with full sleeves, which they use as pockets. Their shoes have thick white soles. They shave off their hair except a lock on the crown, which they wear in a long braid. Chinese ladies can seldom walk well, because when they were young their feet were kept tightly bandaged to prevent them from growing. Thus their feet, though small, are terribly deformed.

The Chinese are very polite to one another. Even after he has grown up, a Chinaman obeys

his parents while they are alive and worships them after they are dead. Although the Chinese seem stupid in not adopting new ways, they are very clever in doing things in their old-fashioned ways, and they are very industrious.

In China proper farming is the chief occupation. Almost every foot of the land is cultivated, and



A Chinese girl.



A Chinese barber.

along the rivers great rafts made of a kind of tall reed or cane, called *bamboo*, are covered with earth and used as gardens. Many thousands of people live on these rafts and on flat-boats which are moored with them.

On the hill slopes tea and many fruits and vegetables are raised, but in the lowlands barley and rice are the chief crops. The rice is grown on land that can be easily flooded, and



Planting rice in China.

thousands of men and women may sometimes be seen wading in the rice fields, tending their crops.

Tea is the leaf of a shrub three or four feet high. The leaves are picked three or four times a year. They are heated in shallow pans, rolled with the hands upon a table, and then dried in sieves over charcoal fires. Much of the tea is shipped in lead-lined boxes, to England and America. Quantities of an inferior kind are pressed into "bricks" and sent overland on the backs of camels into Siberia and Russia.

Chinamen eat very little beef or mutton, but every hut has its pig, and ducks, geese, and chickens. Fish cooked in lard or in castor oil is much used for food; but the chief food in China consists of rice and tea.

Famines often occur in China, when thousands of people starve to death. This is because, when

the crops fail in one part of the country, food cannot be quickly brought from other regions, since there are no railroads or good roads, and few horses and wagons. In much of China almost all the merchandise is carried on the

backs of men, or on rude wheelbarrows, or on the rivers or canals, in boats called *junks*.

The Chinese make many excellent and beautiful things, but mostly by hand. The best pottery and porcelain

used to come from China, and to this day we call it *china ware*, even though it is made in Great Britain. Chinamen generally dress in cotton cloth made in China. It was from the Chinese that the world learned to make silk, and much of the finest and softest silk cloth still comes from China; but most of the silk exported from China is raw silk which is manufactured into cloth, ribbon, or thread in Europe or America.

Manchuria is crossed by forest-covered mountains. Between them are many wide and fertile valleys, in which much wheat is raised. Mon-



A Chinese wheelbarrow.



Picking tea in China.

golia and Chinese Turkestan are mostly desert or arid land, where the people live in a half-savage state, tending herds of horses, cattle, and camels. These people used to be robbers, and long ago one of the emperors of China built a great wall twelve hundred miles long to protect his people from them. Much of this wall is still standing. The high, cold plateau of Tibet has seldom been visited by white men.

Find Peking. It is the capital of the Chinese Empire. Where is Canton? It is one of the largest of the many large cities of China. Find Shanghai. It is the greatest seaport of China and one of the few Chinese cities where foreigners are allowed to live.

Hongkong, a small island near the coast, belongs to Great Britain. A great many foreign merchants live there in order to trade with China.

When, a few years ago, Chinamen were first permitted to leave China, many came to the Pacific coasts as laborers. But our laws do not now permit Chinese laborers to enter the Dominion without paying a heavy poll tax.

What is the name of the peninsula northeast of China? It was once part of the Chinese Empire, but is now an independent kingdom. Like China, Korea has had very little to do with the outside world. What is the capital of Korea?

Sketch Asia, showing the Chinese Empire.

CHINESE EMPIRE.

- I. LOCATION AND SIZE. Countries.
- II. SURFACE. Plateaus and deserts. Great fertile plains.
- III. CLIMATE AND SOIL.
- IV. PRODUCTS. Rice. Tea.
- V. PEOPLE. Race. Distribution. Appearance. Food. Handiwork. History.
- VI. TRANSPORTATION.
- VII. CITIES.



Making parasols in Japan.

Japan.

What island empire east of China? In what zone are most of these islands? What is the name of the largest island? It is larger than Manitoba. What is the name of the large island at the south end of the group? What sea lies between Hondo and the mainland? What ocean is east of these islands? What do you know of the formation of these islands?

The Japanese have been called the "Frenchmen of Asia" because they are so polite; they



Volcano Fujiyama in Japan.

have also been called the "English of the East" because they are so energetic.

The Japanese islands are mountainous, and the scenery is very beautiful. There are many volcanoes and hot springs among the mountains, and earthquakes are frequent. The summers are warm and moist, but the winters are quite cold.

It is only in recent years that the Japanese have allowed vessels from all nations to visit their seaports. Since the foreigners were admitted Japan has made wonderful progress in civilization. Railways and telegraph lines have been built; good roads have been made; daily newspapers are published; a university has been established; and every town and village has its schools.

The Japanese look somewhat like the Chinese, to whom they are related. The men are short but sturdy; the women small and slight. The women paint their faces white and their lips red, and fasten up their long black hair with wooden pins.

The houses are made of wood, with sliding walls in front which are pushed aside during the day, showing the whole interior.

Dressed in his long loose gown with flowing sleeves, the Japanese squats upon the floor and sells his goods, using the floor as a counter. He eats his meals from a tiny table, and manufactures by hand — sometimes by foot also, for his toes are almost as useful as his fingers. His wife squats near him, dressing her hair, or playing a kind of guitar, or boiling the rice for his dinner, while the children run about at play, the older one with the baby strapped to his back. At night the family close the sliding walls, and, after taking a scalding hot bath, pull out of the closets the quilts which serve as beds, and go to sleep on the floor, their heads resting on little padded

wooden stools. Among the poorer people, rice, fish, radishes, and tea are almost the only food.

The Japanese, like the Chinese, raise silkworms, and a great deal of tea. The camphor tree, and the tree from which is obtained the gum used in making lacquered ware, grow on the mountain slopes. The Japanese are very fond of flowers; they call their country the

“Land of the Chrysanthemum,” and have festivals in spring in honor of the cherry blossom. Their

small farms have no fences, for there are few cattle and fewer horses. In the cities passengers are drawn by men, in little two-wheeled carriages called *jinrikishas*.

Almost everything made in Europe and America is also manufactured in

Japan. Japanese silk, tea, porcelain, and lacquered ware are exported. The largest share of the exports of Japan is sent to the United States; but the imports come more largely from Great Britain.

Steamship lines connect Japan with San Francisco, Puget Sound, and the chief ports of Europe and Asia. Yokohama is the chief seaport. Where is Tokyo? It is the capital. Its recent growth has been even more rapid than that of Chicago.

It was an American who first induced the Japanese to trade with the rest of the world, and many young Japanese attend our schools and colleges.

Sketch Asia; locate Japan.

JAPAN.

- I. LOCATION AND SURROUNDINGS.
- II. CLIMATE.
- III. PRODUCTIONS. Agricultural. Manufactured.
- IV. PEOPLE. Appearance. Food. Houses. Progress.
- V. CITIES.



A Japanese carriage or jinrikisha.



Selling vegetables in Japan.

India.

What three peninsulas project southward from Asia? What is the name of the middle peninsula? In what zones is India? What mountains north? What waters east? West? What island south? Describe the surface of India. The drainage.

India is the richest and most populous possession of the British Empire. The English first came to India about the beginning of the seventeenth century. Starting with a few trading posts, they have gradually extended their dominion over nearly two million square miles and three hundred millions of people. The Indian people are not fitted for free government like Canadians or Australians, but the country is wisely and justly ruled by British officials. Britain obtains no revenue from India, but her merchants control most of the trade, although the ports of the country are open to all nations alike.

For half the year southwest winds blow over India, bringing heavy rains from the Indian Ocean. During the other half of the year dry winds blow from the north. A wind which reverses its direction regularly in this way is called a *monsoon*, which means "season."

The great glaciers and snow-capped summits of the lofty Himalayas get their snow from the southwest monsoon.

The lower slopes of the mountains are covered by forests; at their foot are dense

thickets called *jungles*. The alluvial plains of northern India are the most fertile lands of the country, and are covered with many villages, almost hidden by palm

trees. In the jungles are many wild animals—the tiger, the leopard, the elephant, the rhinoceros, and the hyena. The elephant is trained to carry heavy burdens and to drag timbers. The buffalo also is found, and the forests are filled with monkeys and birds. The cobra, the most poisonous snake known, is found in India, where thousands of people die of its bite every year.

India is thickly inhabited by people of many different races and religions. The greater part are Hindus, who belong to the white race. They are divided into classes, called *castes*, which never mingle with one another. The priests or Brahmins are the highest caste. They have very old books filled with poetry or stories of their gods. The lowest castes are miserably poor. They wear only a strip of cotton about the hips, with perhaps another tied around the shoulders; they sleep in mean huts on short rope beds, and live on rice and water, with an occasional piece of fish.

In India there are many magnificent palaces,



A tomb in India.



Country scene in India.



The rhinoceros.

temples, and tombs, some hollowed out of the rock as caves, and some built of marble and decorated with wonderful carvings or brilliant gems.

Most of the domestic animals with which we are familiar — the horse, ox, sheep, dog, cat, hog, and chicken — came originally from this part of Asia, accompanying the white people to Europe, and from Europe to America. Many of our grains, fruits, and vegetables also came originally from this region.

Agriculture is the chief occupation in India. In the Ganges valley there are many irrigating canals, and in the Dekkan plateau are large tanks to save the water which falls during the wet season.

Rice, peas, and millet, a grain like corn, are the chief food of the people. Wheat, tea, and sugar cane are also grown. The wheat is sent to Europe through the Suez Canal. The poppy is cultivated for the opium made from its juice.

Much flax is grown for the seed, from which

is pressed linseed oil. We use this kind of oil in mixing paints. Cotton, jute, and silk are also produced. Part of the cotton is sent to England, where it is made into cloth, much of which is sent back to India. The jute is used

in making coarse bags and rope.

The Hindus manufacture fine shawls, carpets, and rugs, and such delicate cotton cloth that they call it "woven wind." They also make fine gold embroidery thread, and beautiful jewelry. They have some modern factories, but most of their fac-



Street scene, India.

tory-made goods come from Europe.

The Ganges valley has many railroads, and narrow-gauge railroads lead to some of the "hill stations," as English towns in the mountains are called.

Where is Calcutta? It is the capital and leading seaport of British India. What port is on the west coast? It has a good harbor, and is connected with Calcutta by a railway. Where is Madras? It also is a market and seaport. What city is in Ceylon? From this port tea and coconut oil are sent to England.

What fortress in the Spanish peninsula do the British own? They also control the Suez Canal. What town is on the Gulf of Aden near the mouth of the Red Sea? The English own this town. All these possessions make it possible for England to control the route of vessels from England to India.

Sketch Asia; locate India.

INDIA.

- I. POSITION, EXTENT, AND BOUNDARIES.
- II. SURFACE. Plains. Plateau.
- III. CLIMATE AND RAINFALL.
- IV. PRODUCTS. Vegetable. Animal.
- V. PEOPLE. Classes. Occupations. Government.
- VI. CITIES. Calcutta. Bombay. Madras.



Elephants used for carrying passengers.

Southwestern Asia.

What five countries in southern Asia west of India? Which has no seacoast? What sea is north of Persia? What gulf south? What empire owns the western part of the Arabian plateau? What three seas border Asiatic Turkey? What waters wash the shores of the Arabian peninsula? Describe the surface of southwestern Asia. Its drainage.

Southwestern Asia is a rugged plateau with little low land except the alluvial plain of the Tigris and Euphrates rivers. Much of it is a desert; for the southwest winds, which in India blow from the ocean, in this region blow over a hot land, and therefore bring little rain.

Figs and dates are raised for food and are exported in great quantities. Grass is really the most important food stuff, for it supports the herds of camels, goats, and sheep which form the chief wealth of the region.

There is no finer wool than that produced in these dry plateaus. The rugs and carpets made in this part of Asia have a market in every part of Europe and North America.

The camel is of great importance, for it can travel long distances over the dry and barren deserts without food or drink. It is often called "the ship of the desert." Trains of camels sometimes carry loads of merchandise a distance of several thousand miles.



Weaving a Persian rug.

Excepting the ruling class in Turkey, who belong to the yellow race, the people of southwestern Asia belong to the white race. They are generally employed in herding, trading, and weaving by hand.

Afghanistan and Baluchistan are two small mountainous states, through which caravan routes lead into India. Baluchistan practically belongs to England.

The Persians are noted for the silks, carpets, and fine shawls which they weave by hand. Name the capital of Persia.

The Arabs of the plateau

of Arabia are closely related to the Jews, whose history is contained in the Old Testament, and whose country lies between northern Arabia and the east coast of the Mediterranean Sea.

The Arabs are generally wandering herdsmen, each tribe being governed by a chief called a *sheik*. The most flourishing Arabian state is Oman, in the southeast.

Most of Arabia is a desert, with a few fertile tracts where the Arabian horses are raised. There are fertile lands near the coast, too, where dates and coffee are grown.

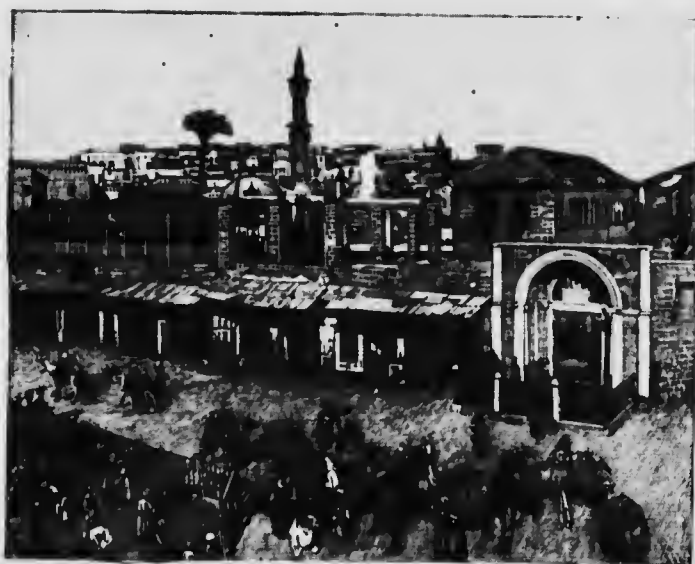
The Turks, who form the ruling class in Asia Minor, are followers of Mohammed. There are many Christians, however, of the



The Arabian camel.



Arabians.



A street in Yafa, the seaport of Jerusalem.

white race, to whom the Turks are very cruel. They are the weavers, traders, and bankers.

Find Jerusalem. It is famous for many of the scenes in the life of Jesus. Find Smyrna. It is a noted seaport. Damascus is one of the oldest cities in the world. The cloth called *damask* is still made in this city. Where is Mecca? It is the birthplace of Mohammed.

Make a sketch map of Asia, showing the five southwestern countries.

SOUTHWESTERN ASIA.

- I. PHYSICAL. Surface. Coast. Climate.
- II. POLITICAL. Countries. Chief cities.
- III. INDUSTRIAL. Occupations. Products. Trade. Export.

Southeastern Asia.

Where is Indo-China? What bay is west? What sea is east? What gulf opens into this sea? What peninsula in the south? What island is southwest? What strait separates the peninsula from the island?

The climate, animals, and food stuffs of Indo-China are much like those of India. The islands near by, however, produce, among mineral products, tin; among animal products, ivory; and among vegetable products, ebony, hemp, camphor, and a great variety of spices.

Most of the people of Indo-China belong to

the yellow race, but in the southern part there are many Malays.

Burma, in the west, belongs to Great Britain, and is governed as part of British India. Name two Burmese cities.

Siam is an independent native kingdom. The country is sometimes called the "Land of the White Elephant," for white elephants are held so sacred there that they are treated as if they were kings. Most of the trade is in the hands of European and Chinese merchants. Teak, a hard wood used in shipbuilding, comes from the forests. Precious stones are found in Siam. What is the name of the capital?

Anam and Cambodia are French possessions. Much of the trade is with France. Rice, sugar, and raw silk are exported.

The Malay peninsula contains a British colony in the southern part, and several small native states. Spices and gutta-percha, a kind of rubber, are the chief products. About two thirds of the tin used in the world is brought to Singapore to be shipped to Europe.



Burmese girl.

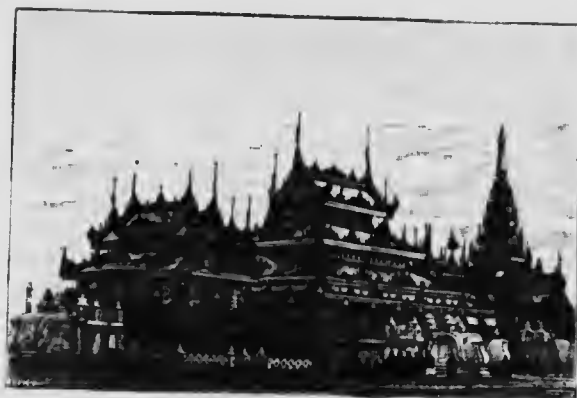
The islands southeast of Asia are often called the East Indies. Where are the Philippines? They are controlled by the United States. They export sugar and Manila hemp, which is used in making ropes and cables for ships.

The islands southeast of the Malay peninsula (see map, p. 23) belong to the Netherlands, and are called the Dutch East Indies. Java is the most im-

portant. Sugar, coffee, tobacco, spices, and tin are the chief products of these islands. The land is tilled by Chinese and native Malay laborers.

Batavia is the capital of the Dutch possessions, and is a great commercial city.

The islands of Banca



A temple in Siam.

and Billiton, near Sumatra, are noted for their tin mines.

SOUTHEASTERN ASIA.

- I. PHYSICAL. Surface features. Coast. Climate. Neighboring islands.
- II. POLITICAL. European owners. Native government. Races.
- III. INDUSTRIAL. Productions. Important mineral export.

REVIEW EXERCISES.

Size.—Compare Asia with North America in size. With South America. With Europe.

Plateau of Tibet.—How far north of the Tropic of Cancer is the plateau of Tibet? What part of the United States is about as far north? Compare the climate of British Columbia with that of Tibet. Account for the difference. Compare the climate in the plains of India with that of Tibet. Explain this difference. How does the plateau of Tibet compare with the plateau of Mexico in size and elevation? With the plateau of Bolivia? With Switzerland? Compare the Himalayas with the Rocky Mountains. With the Andes. With the Alps.

Desert Region of Asia.—Locate the desert belt of Asia and name the countries which it includes. Why are these regions deserts? What animal peculiar to desert regions is found in all these countries? In which of these countries are horses found? Sheep? The yak? Is this desert region thickly peopled? Why? Are the people civilized or uncivilized? What are their occupations in Tibet? In Chinese Turkestan? In Persia? In Arabia? In Turkey? Has this region any large cities? Where is Mecca, and for what is it noted? Smyrna? Jerusalem and Damascus? Where is the country of the Jews?

Great Siberian Plain.—Where is the great Siberian plain? What is its continuation in Europe called? In what countries are the Arctic regions of America? Name the large rivers of the world which flow into the Arctic Ocean. Are their basins productive? Why? Where are the frozen, marshy, mossy plains of these river basins? Where are their forests? What fur-bearing animals are found in these Arctic regions? What people in these regions in Asia? In America?

China and Japan.—What two great Mongolian empires in eastern Asia? How does the Chinese Empire compare with the Dominion in size? What two rivers drain the great plains of China? What are the chief articles of food in China? How are they cultivated? In what part of China is rice cultivated? In what parts is tea cultivated? By what two routes may it be shipped from China to Canada? How is tea sent overland from China to Europe? Is silk manufactured in Canada? What country in Europe leads in the making of silk? From whom did the Europeans learn to make silk? To whom do the Chinese sell silk? Which is more advanced, European civilization or that of China? What could China learn from Europe and the United States? When did Japan begin to advance rapidly in civilization?

India.—Where did the white people of Europe come from originally? Of America? When the white people migrated from Asia to Europe, what animals did they take with them? What plants? Where are the fertile regions of India? What are the leading crops raised? Which form the food of the people? What grain is shipped to Europe? By what route do steamships go from India to Liverpool? Where is Calcutta? Madras? Bombay? What raw material is shipped from India to England? How have the British people become rulers of India? What have been the results of their rule?

Indo-China.—Where is Indo-China? Of what countries is it composed? In what respects is it like India? Compare the East Indies with the West Indies in location, climate and productions. With what common metal is the world supplied mostly from the East Indies? Why were the West Indies so called?

AFRICA.



AFRICA. (Same scale as maps of North America, South America, Eurasia, and Australia.)

Position and Coast Line.

Compare this map of Africa with those of North America and of Eurasia. How does

Africa compare with those grand divisions in size? What sea is north of Africa? What ocean and gulf are west? What sea, gulf,

and ocean are east of Africa?
By what isthmus is Africa joined
to Asia?

What part of Africa is crossed
by the equator? In what zones is
Africa? It is the hottest of all the
grand divisions. Why?

Which has the greater number of
bays and peninsulas—Africa or
Eurasia? Africa or North Amer-
ica?

For what was Columbus search-
ing when he discovered America?
At that time Portuguese sailors were
hunting for an eastern route to
India. Name the cape on the south-
ern coast of Africa. When this
cape was reached the King of Portugal named
it Good Hope, because he believed that the
route to India had been found. What other
water route is there from Europe to India?
Which is the shorter?

What large island is east of Africa? How is
it separated from the mainland? Name three
groups of islands west of Africa. The Canary
Islands are the home of the canary birds. Cape
Verde, after which the islands west of it are
called, owes its name to the dense vegetation
that covers it: for *Verde* means "green." All
the islands off the west coast are volcanic.

Practice making a sketch
map of Africa.

POSITION AND COAST LINE.

- I. LOCATION. Waters
surrounding. Cir-
cles crossing.
- II. SHAPE. Its length
and its breadth.
Its three coast
lines. Its outline.
Islands near.
- III. SIZE. Comparison:
with Eurasia;
with North Amer-
ica.



A gorge in the Atlas Mountains.

Relief and Drainage.

Trace on the map the divide between the Indian and the
Atlantic slopes of Africa. On which side of the divide is the
longer slope? What four great rivers drain the longer slope?
To what ocean? What river on the shorter slope of Africa?
To what ocean does it flow?

Africa is a great plateau, highest in the
southern and eastern parts. There is a rim
of mountain ranges around the border, and
from these the surface slopes steeply down to
a narrow fringe of low coast plains.

Where are the Atlas Mountains? Many
years ago people believed that a giant named

Atlas lived in northwestern Africa
and held up the sky on his shoulders.
These mountains are so high that the
clouds sometimes seem to rest on
their summits. In the southern part
of Africa there are several short
ranges. What is the name of the
chief range? Where is the highland
of Abyssinia? This is a lofty pla-
teau with a climate much cooler than
that of the surrounding parts of the
grand division. The two mountain
peaks south of this plateau are the
highest in Africa.



Second cataract in the Nile.

In the central part of Africa, on each side of the equator, is a broad, fertile belt of land which has a very heavy rainfall. North of the equator this region is called the Sudan. What other continent has a large, well-watered region that is crossed by the equator? In what part of Africa are most of the lakes? What large river system lies within this moist equatorial region? How does it compare with the other rivers of Africa in the number of its branches? What large river in the western Sudan? Into what gulf does it flow?

North of the Sudan the climate is so dry that little vegetation grows over a wide region extending from the Atlantic Ocean to the Red Sea. What is this region called? Its surface is low and level in some places, and rugged and rocky in others. In what direction do the mountains which cross it extend? What large river crosses the Sahara to the Mediterranean Sea? Next to the Mississippi-Missouri, the Nile is the longest river in the world. Where does it rise? In the lower part of its course it has no branch. Why?

Much of southern Africa is also very dry, but it has two large rivers. Where does the Orange River rise? Into what does it flow? What river flows eastward into the Indian Ocean?

Nearly all the large rivers of Africa have

rapids or falls where they flow from the plateau to the low coast plains. Steamboats can ascend the Nile to the first cataract,—about eight hundred miles,—but in the Kongo the rapids begin a little over a hundred miles from the sea.

Which grand division has more large lakes than Africa? Name the largest lake of Africa. It is nearly as large as Lake Superior. What great river flows from this lake? Name the lake southwest of Lake Victoria. What great river is its outlet? What lake to the southward empties into the Zambezi? What large lake in the north-central part of Africa?

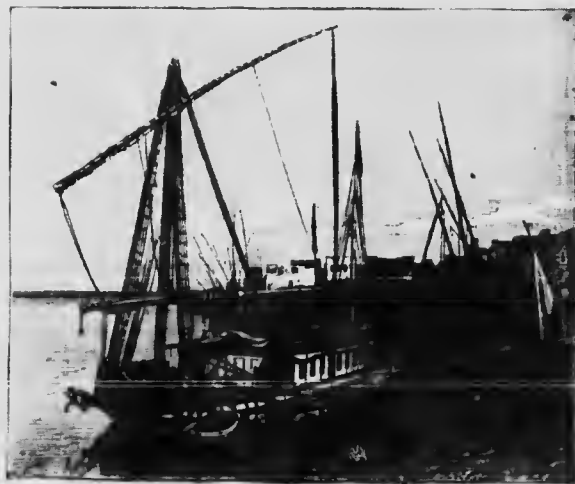
Practice a sketch map of Africa. Show its chief mountains and rivers.

RELIEF AND DRAINAGE OF AFRICA.

- I. **SURFACE.** General elevation. Mountain belts. Coast plains.
- II. **REGIONS.** The Sahara. The Sudan.
- III. **RIVERS.** The Nile. The Kongo. The Niger. The Zambezi.
- IV. **LAKES.** Equatorial. Lake Tchad.

People.

Africa has almost twice as many people as North America, and perhaps two thirds of them belong to the black race. The real home of the negro is the region south of the Sahara.



Scene on the Nile.

The black men in America have become civilized by living with the white people, but in Africa most of the negroes are not civilized and are frequently at war. Many of the tribes, however, raise corn and other grain to feed to their herds of cattle, and some of them have learned to make cloth and leather.

Most of the negro tribes live in villages, some of which contain hundreds of low huts. The negroes are fond of dancing and of music which is often harsh and disagreeable to white people. Some tribes are so fond of ornaments, that it is common to see a negro with his nostrils or lips pierced and ornaments fastened in the holes. Many of them grease and paint their bodies, and wear little or no clothing.

The northern coast of Africa is more like the neighboring countries of Europe than like central Africa, from which it is separated by the desert called the Sahara. Its people are mainly Berbers and Arabs; they belong to the white

race, but, like the Turks, they believe in the Mohammedan religion. Some of the Berbers are civilized, but many are in a half-savage state. They wander about the country with their herds of cattle and camels, sometimes plundering caravans.

The Berbers once occupied all the country from the Red Sea to the Atlantic Ocean, but about a thousand years ago Arabs came



An Arab sheik.

over from southwestern Asia, and their descendants are to-day the traders of northern Africa. The Arabs wear flowing robes and turbans, and are among the finest horsemen in the world. Nearly all the trade between the interior and the coast is by means of Arab caravans.

In southern Africa and along the coast are European colonies.

Sketch Africa, showing where the negroes, Berbers and Arabs, and European colonists live.

PEOPLE OF AFRICA.

- I. INHABITANTS. Number, Races.
- II. NEGROES. Home, Appearance, Civilization.
- III. BERBERS AND ARABS.
- IV. EUROPEAN COLONISTS.

Industries.

The industries of the northern coast of Africa, like the people, are similar to those across the Mediterranean Sea. But central Africa is so hot, a part of it

is so dry, and its interior is so difficult to reach, that it has only recently been explored by Europeans, and its exports are very different from those of the other grand divisions.

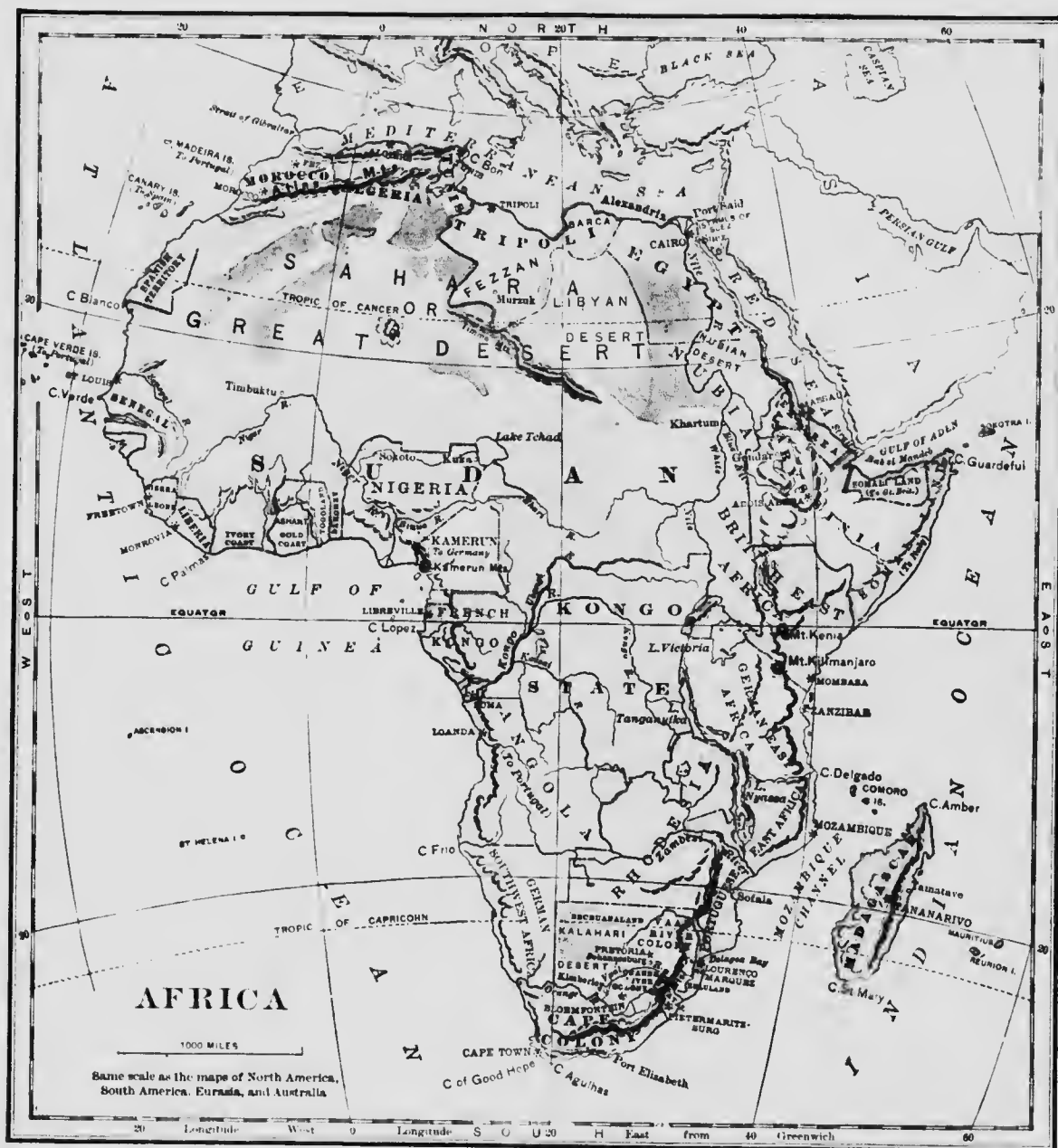
The people from the Mediterranean coast could not easily cross the Great Desert to the south. It is only by means of camels that the Sahara can be traversed. But these animals are constantly crossing the Sahara to the Sudan, carrying salt, cloth, knives, and trinkets. These are traded to the natives of the interior for ivory and slaves mainly, but also for gold



A Sudan slave.



An Arab woman and child.



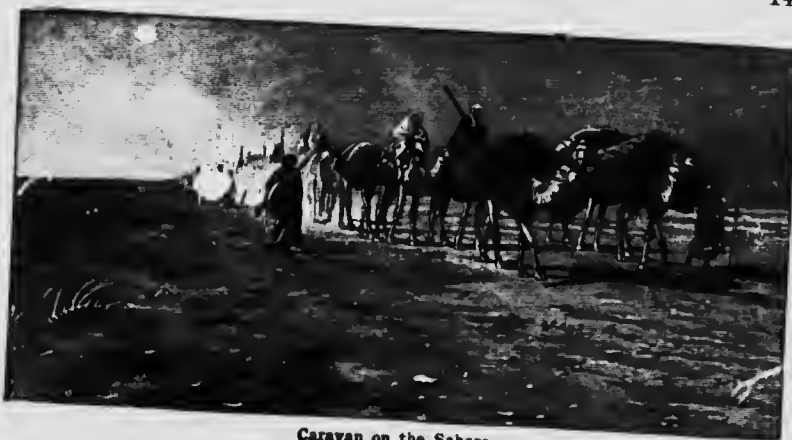
dust and ostrich feathers, which are brought back to the markets near the coast. How are camels fitted to cross deserts?

Ivory is the most valuable product of Africa, and great quantities of it are exported every year. From what is it obtained? Elephants

are found all over the great central region of Africa, but are being killed so rapidly that in a few years probably none will be left. What part of the elephant furnishes ivory? In what other grand division are elephants found? For what is ivory used?

Slavery exists in most parts of Africa, in many parts of Asia, and in European Turkey. In the rest of Europe and in America it is no longer permitted. Every year thousands of men, women, and children in central Africa are torn from their families, often by the chiefs of their own tribes, and sold into slavery. Many of these slaves are driven across the Sahara, or to the east or west coasts, to be sold.

Few animals live in the Sahara, but one of the most useful is the ostrich, a huge bird that stands about seven feet high. The ostrich does not fly, but it is so swift a runner that a horse can hardly overtake it. Its feathers are



Caravan on the Sahara.

Sketch a map of Africa, showing where ivory, gold, and the ostrich are found.

PRODUCTS OF AFRICA.

- I. IVORY. What it is. How obtained. How carried. Use.
- II. SLAVES. Where captured. Where sold.
- III. GOLD AND DIAMONDS. Where found.
- IV. OSTRICHES. The wild ostrich. Ostrich farms.

Barbary States.

Name the countries along the Mediterranean Sea west of Egypt. They have about the same warmth and rainfall as southern California. They are called the Barbary States, because most of the inhabitants at one time were Berbers.

Which state is opposite Spain? It was named from its people, the Moors, a tribe of the white race closely related to the Jews and Arabs. The people of Morocco are miserably poor and are brutally treated by their emperor or sultan. The capital of the country is any city in which the sultan may happen to live; sometimes it is Fez, the largest city, and



An ivory market, Zanzibar.

used as ornaments. There are many ostrich farms in southern Africa. Great care is given to the raising of young birds, and the plumes are carefully cut each season. These ostrich farms afford most of the world's supply.

Gold is found in many parts of Africa, and has had much to do with its settlement. Until gold was found in California most of the coin of Europe was made of gold from the west coast of Africa. There are now rich gold and diamond mines in southern Africa.



Ostrich.

sometimes Morocco. In these cities the white, flat-roofed houses have no outside windows, but each is built around an open courtyard in the middle. In the sunny streets are seen Arab and Berber soldiers on their fine horses, women with their faces concealed in the folds of their white robes, and donkeys and camels carrying heavy loads and driven by ill-clad Arab and negro boys. Morocco is famous for its beautiful leather.

What state is east of Morocco? It is part of the French Republic. Caravans bring goods to the markets along the railways of Algeria. Find Algiers. It is the largest city and seaport.

On how many sides has Tunis a seacoast? Tunis was once a Turkish possession, but it now belongs to France. What is the capital?

Tripoli, including Fezzan and Barca, is a Turkish province and is poorly governed. Most of the land is a desert. What is the capital?

Europeans now control most of the trade and own most of the fertile lands of the Barbary States. A great deal of wheat, barley, and millet is grown here for European



Grocery store in Tunisia.

markets. Tobacco of fine quality is produced. Olives, dates, and esparto, a kind of grass of which paper is made, are produced and exported.

Sketch a map of Africa; show the Barbary States, and locate the cities of Morocco, Algiers, and Tunis.

BARBARY STATES.

- I. NAMES AND LOCATIONS.
- II. CLIMATE AND PRODUCTIONS.
- III. CITIES.
- IV. PEOPLE. Native Europeans.

The Sahara.

The name *Sahara* means "desert." The region itself is a part of the great barren tract that stretches across Africa and most of Asia. Trace this belt on the map of Asia and name the different deserts included in it. These are deserts not so much because the soil is sterile, or sandy, as because so little rain falls that few kinds of plants can grow. In some parts it is so dry that no plants of any kind can live.

Toward the south of the Sahara, where the climate is moister, more or less grass grows, and still farther south the desert region gives place to the fertile lands of the Sudan. In the desert itself there are occasional springs or wells surrounded by grass and date palms. These fertile spots, or *oases*, are the only parts of the Sahara (except the valley of the Nile) where people can live.

This desert is probably the hottest part of the earth, though the nights are cool, and sometimes cold enough to freeze water.

Describe the surface of the Sahara. In some parts it is covered with loose rocks and in



Street scene in Morocco.

others there are sand dunes that drift about with the wind. Sometimes fierce winds blow and the air is so full of fine sand that it is almost as dark as night. Then the camels and their drivers lie upon the ground with their heads almost buried in the sand until the storm has passed.



Oasis in Tripoli.

Sketch Africa; locate the Sahara, and show its mountain range.

THE SAHARA.

- I. LOCATION. In Africa. In the desert belt.
- II. SURFACE.
- III. WINDS AND SAND STORMS.
- IV. VEGETATION.
- V. CARAVANS.

Egypt and Abyssinia.

What sea north of Egypt? East? What river flows through the country? How was the Nile delta made? What kind of soil has it? What other rivers do you know of that have deltas?

The country of Egypt is several hundred miles broad, but the only part in which people can live is the flood plain of the Nile, rarely over four or five miles wide. On each side of it is a hot desert.

Except in the delta scarcely a drop of rain ever falls on this flood plain of the Nile. It is well watered, however; for once a year the rains in the southern highlands flood the Nile, which overflows the plain on each side of it. Little by little the water subsides and leaves a coating of mud over the land, which yields wonderful harvests of cotton, sugar, rice, and wheat. Perhaps no other country produces such fine dates, melons, and figs. These fertile lowlands of the Nile are very densely populated.

The Egyptians are a mixed race. Most of

them are of mixed Arab and negro blood, and are Mohammedans. The Arabic language prevails.



Street scene in Old Cairo.

Egypt is called a Turkish possession, for the *khedive* or ruler pays tribute to Turkey. But since 1880, the real rulers of Egypt have been the British, who have established peace, order, and just government.

The Egyptians were civilized long before even the Greeks. They built in the Nile valley many vast temples, monuments, and tombs, the huge ruins of which still stand. One of these old monuments or *obelisks*, which stood in Egypt in the time of Moses, has been brought to New York city and placed in Central Park.

Find Cairo. It is the capital of Egypt. Near it are the pyramids. (See picture, p. 15.) They were built many thousand years ago as tombs for the kings. Find Alexandria, the chief seaport. Where are Suez and Port Said?

Where is the Nubian Desert? Nubia and much of the country south of it are claimed by Egypt. In this part of the Nile are found the crocodile and the hippopotamus, which is somewhat like a hog, but much larger.

Many of the people of Abyssinia are Christians. They are thrifty farmers and herders. There are also many Arab slave traders in the country. It is thought that coffee came first from the Abyssinian plateau.

Sketch Africa; show Egypt, the Nile, and the lakes near its source.

EGYPT.

- I. LOCATION.
- II. THE NILE BASIN. Shape and position. The river: length; delta; source of water; floods. Soil and productions.
- III. PEOPLE. Government. Ancient civilization.

The Sudan and the Kongo State.

South of the Sahara, stretching across the continent from Cape Verde to the Abyssinian highland, is a broad belt of fertile land called the Sudan. It is a part of the well-watered region of equatorial Africa, and is composed partly of open lands and partly of forests.

There is no boundary between the Sahara and the Sudan, but the desert gradually disappears as the rainfall increases. In the Sudan are found the giraffe, the elephant, and also the lion, which is common to most parts of Africa. Name the rivers in the Sudan; the lake. How does the Sudan compare with the Sahara in size?

The name *Sudan* means "black." It is in this part of Africa that the most civilized negro tribes live. They cultivate cotton and grain, own herds of cattle, and manufacture cotton cloth and leather goods. Each great tribe has

its king. Most of the people of the Sudan are Mohanmedans.

There are a few large native towns in the Sudan, with bazaars or markets, where the Arab merchants gather the products of the Sudan to carry them to the seaports.

What state occupies most of the Kongo basin? This region is covered with dense forests, and is the home of many millions of people.

What large animal found in much of this region is hunted and killed? Ivory and rubber are valuable exports. In what respects

is the Kongo basin like the rubber-producing region of South America? The rubber trees of the two regions are not of the same kind.

Though the Kongo basin has a climate unsuited to Europeans, there are traders in this region from France, Belgium, and Portugal.



Hippopotamus.



Giraffe.



Making baskets in central Africa.

Steamers sail on the rivers, but much merchandise is carried by the natives over the narrow trails which everywhere cover the interior of Africa. The Kongo State is controlled by the King of the Belgians. Its trade is chiefly with Belgium and the Netherlands.

What is the capital of the Kongo State?



Carrying hides to the coast, Madagascar.

Sketch Africa; locate the Sudan, the Kongo River, the Kongo State, and Boma.

THE SUDAN AND THE KONGO STATE.

- I. LOCATION.
- II. THE KONGO RIVER.
- III. CLIMATE AND RAINFALL.
- IV. FORESTS AND ANIMALS.
- V. PEOPLE. Natives. Europeans.
- VI. TRADE.

Coast Countries.

Various European nations have established colonies among the negro tribes of the west coast of Africa. Where are Sierra Leone and Liberia? One was established by Great Britain, and the other by the United States, for freed slaves. Liberia is now an independent republic.

The west coast of Africa is rich in gold, and yields harvests of coffee, cotton, and sugar cane. One of the chief products of the coast region is an oil pressed from the nut of a palm tree. Palm oil is used in Europe and in America for making soap. The forests yield kola nuts, india rubber, and copal, from

which the best varnish is made. All these products are sold in Europe and America.

The east coast also is divided among European countries. The chief products are ivory, rubber, and sesame seeds, from which a valuable oil is pressed. The Arabs are still secretly engaged in the slave trade. Zanzibar, controlled by Great Britain, is one of the most important places on the east coast.

The island of Madagascar is now a French colony. The former ruling class belongs to the Malay race, and is partly civilized. There are many negroes held as slaves. Gold and copper are mined, but farming and cattle raising are the chief employments. Rice, sugar cane, coffee, and cotton are cultivated. Rubber and hides are the chief exports. The greater part of the trade is with France. Tananarivo is the capital. What is the chief seaport?

Cape Colony and the Boer States.

The region from the Cape of Good Hope to the Orange River is known as Cape Colony. What is its capital? The first owners of Cape Town were the Dutch, who settled there not long after New York was founded. But just as the English took New York, so they afterwards captured Cape Colony, which is now the most prosperous country in Africa.

The Dutch and the English did not live very peaceably together; so the Dutch settlers, or



Natives tanning hides, Natal.

Boers, when slavery was abolished by the British, sold their lands, and, moving north across the Orange and the Vaal rivers, formed the Orange Free State and the South African Republic. In 1899, war broke out between Britain and these states because they refused to redress the grievances of the English miners at Johannesburg, and they have been annexed by the British as the Orange River and the Vaal River Colonies.

Many of the black people of South Africa are becoming civilized. They tend the herds, and work in the gold and diamond mines.

Mining, farming, and herding are the chief pursuits, and

wool, grain, and hides are exported. There are also extensive ostrich farms.

Where is Kimberley? More diamonds come from the mines near Kimberley than from all the rest of the world. The rich gold mines in these states are worked mainly by Englishmen and Americans. Johannesburg is the centre of the gold region.

Railways have been built through much of this region to the seaports. Cape Town is the principal seaport of southern Africa.

Sketch Africa; locate Cape Colony and adjacent British colonies. Locate Cape Town, Kimberley, Johannesburg, Pretoria, and Bloemfontein.

SOUTH AFRICA.

- I. COUNTRIES.
- II. HISTORY.
- III. MINES.



Scene in Johannesburg.

REVIEW EXERCISES.

Location.—Where does the equator cross Africa? What other grand division does it cross?

Surface.—Which grand division is a great plateau? Which is higher, its northern or its southern part? Its eastern or its western part? What cape near its southern extremity? What plateau between the Cape of Good Hope and the Red Sea? What mountains? Does the highland region which extends from the Cape of Good Hope to the Red Sea include the highest part of Africa?

Rivers.—Name the three largest rivers in Africa. Into the waters of what ocean do they flow? Beginning at the south, draw a line separating the part of Africa drained into the Indian Ocean from the part drained into the Atlantic Ocean and its seas. What rivers of Africa rise in the equatorial regions?

Forests. Where is the forest region of Africa? What other grand division has a vast equatorial forest region? Mention one way in which equatorial forests differ from those of temperate zones. Name some animals of the African forests. Of the South American forests.

People.—To what race do most of the people of Africa belong? What part of Africa is the home of the black race? In what other grand divisions are many negroes found? In which grand divisions are negroes still in slavery? What part of Africa was the seat of an early civilization? To

what race do the inhabitants of northern Africa belong? What natural barrier separates northern Africa from the land of the black man? What race is now colonizing the negroes' country? Name the chief possessions of Britain, France, and of Germany in Africa.

Ivory and Ostrich Feathers.—What animals of Africa yield valuable products? Where is the ostrich found in its wild state? What are ostrich farms? Where is Cape Colony? In what parts of Africa is the elephant found? Where is the Kongo State? What and where is Boma? How is ivory obtained? Why is the supply of ivory decreasing? How is it carried to the markets? What is a caravan? Where does Asiatic ivory come from?

Gold and Diamonds.—In what countries of Africa is gold found? What are the coast countries? Where are the Boer States? Name them. Who are the Boers? Where is Johannesburg? Where are the Kimberley diamond mines? To what nation does Cape Colony belong? What is the chief seaport? To what city are diamonds sent to be cut?

Egypt.—Where is Egypt? What river drains it? How can the Nile valley support so dense a population? What are the leading products of the Nile basin? Where is Cairo? Alexandria? What attracts travellers to Egypt? What nation rules Egypt?

AUSTRALIA AND THE ISLANDS OF THE PACIFIC.

Australia.

In what direction from Asia is Australia? (See map, p. 23.) Is it an island or a continent? It is also spoken of as a grand division. What tropic crosses it? What other grand divisions are crossed by the same tropic? In what zones is Australia? What are the winter months in southern Australia? Name the waters which surround Australia. Name the large islands near it. In what part of Australia are the highlands? In what part are the longest rivers? Practice drawing an outline map of Australia.



AUSTRALIA. Same scale as maps of North America, South America, Eurasia, and Africa.)

Captain Cook explored Australia and took possession of it for Britain about the time that the United States gained their independence. The first settlers were convicts, and soldiers to guard them. Afterwards rich gold fields and sheep pastures attracted many immigrants, and

five colonies were founded. In 1901, these colonies, together with the neighboring island of Tasmania, were united into the Commonwealth of Australia, with a government much like that of the Dominion of Canada. There is a governor-general appointed by the British sovereign, and a parliament chosen by the people. Each of the colonies, now called states, has also a legislature to look after local affairs, as in Canada.

The surface of most of Australia is a low, dry plateau, with a range of mountains along the east coast. In the southeast the mountains are separated from the interior plateau by broad lowlands. Most of the rivers are sudden torrents which soon dry up, or sink into the sandy soil. The lakes are salt marshes or shallow pools.

Over the dry interior region, strange shrubs and spiny grasses form a thicket so tangled



Australian forest.



Kangaroo.

There are forests of eucalyptus, one of the tallest trees in the world, with long, pointed, dark-green leaves turned edgewise to the sun.

The animals are even stranger than the plants. Many of the native birds are like those of Asia, but most of the four-footed animals are *pouched*. There is a sac on the breast of the mother, in which the young are carried for some time after birth. The largest of these pouched animals is the kangaroo, which has very powerful hind legs on which it travels swiftly by jumping, without touching its weak fore legs to the ground. Much kangaroo leather is sold in America.

The natives are black savages, very degraded and ignorant. Few of them now remain.

The gold mines are among the richest in the world, and silver, tin and copper are obtained in considerable quantities. But the chief occupation of Australia is the production of wool.

and bristling that only a few wild animals can crawl through it. Even on the mountain slopes and in the coast regions, where there is greater rainfall, the plants are not like those in the rest of the world.

Over one-fourth of the world's wool product is grown in Australia, and great quantities are exported, chiefly to England. Tallow, hides, leather, preserved and fresh meats are also exported, as well as wheat and flour, gold and tin. In exchange for these, manufactured articles are sent from the mother country. What city is the chief wool market of the United States?

What is the name of the most southern colony? It is one of the richest gold-producing regions in the world. What is its capital?

What colony north of Victoria? New South Wales is the richest and most populous colony of Australia. Its capital is a port for steamships from San Francisco and Vancouver.

What colony north of New South Wales? Tin is mined in Queensland. Name the capital.

In South Australia only a few square miles along the coast are productive, but this colony yields considerable wheat.

What is the capital and chief seaport of South Australia? Of Western Australia?

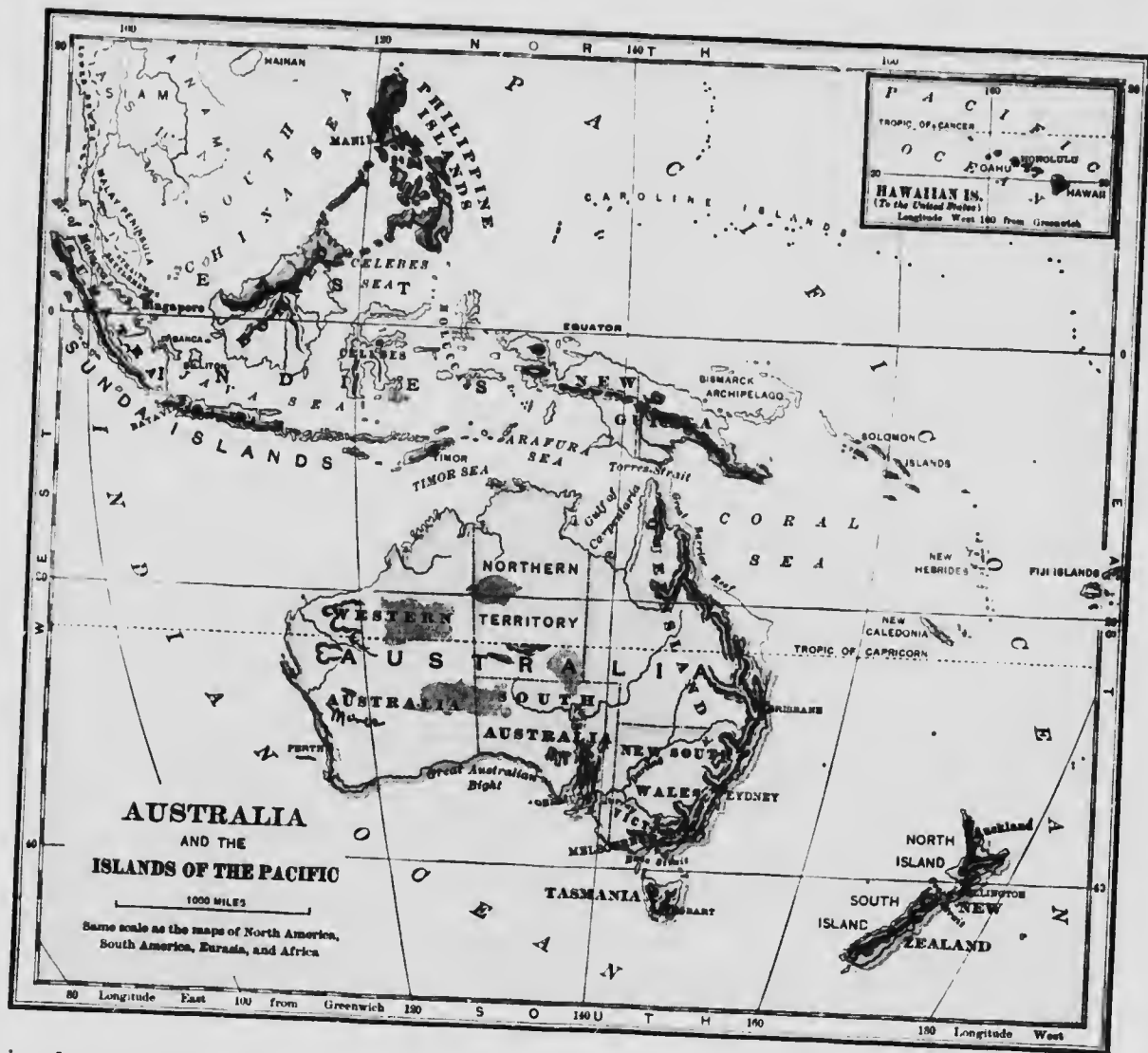
Railways have been built from the larger cities of Australia to the ranches and mines



Native Australians.



Australian sheep.



in the interior, and the Australian colonists are among the foremost people of the world in their modes of government and education.

Though Australia is nearly as large as the United States, it contains but half as many inhabitants as the state of New York.

84. Islands of the Pacific.

What group of islands is southeast of Australia? What island is south? What large island is north? What is the name of the sea

east of Queensland? What coral formation lies in this sea? (See p. 80.)

The large islands near Australia are rugged plateaus with high mountain ranges. Some of the small islands shown on the map are the tops of volcanoes which are partly covered by the sea; others are low coral islands.

New Zealand is a volcanic region, containing geysers like those of Yellowstone National Park. The two large islands are about twice as large as the state of New York. Sheep raising is



Native huts, New Zealand.

the chief industry, and wool and meat are exported. New Zealand is a British colony, and most of the people are of English descent. The natives, called Maoris, belong to the Malay race. What is the capital? Where is Auckland? Steamships from Vancouver and San Francisco call at this port. Lines of railway have been built through the islands. Tasmania is a plateau with very fertile valleys. It is a British colony, and for a long time convicts were sent there as well as to Australia. The chief exports are wool and tin. What is the capital?

The Fiji Islands, north of New Zealand, also form a British colony. The natives are Malays, and have been so far civilized that they now work on the plantations, from which



Going for water, New Guinea.

sugar, fruit, and cocoanuts are sent to New Zealand and Australia.

New Guinea is owned by the Dutch, the British, and the Germans; but very few white people live there, and the natives are mostly savage.

The Hawaiian Islands are a group of small islands in the Pacific Ocean, near the Tropic of Cancer, and about two thirds of the distance from Sydney to San Francisco. They were annexed by the United States in 1898. While Ameri-

cans own the greater part of the land, most of the inhabitants are Japanese, Chinese, Portuguese, and natives. Most of the sugar used on the Pacific coast of our country is made from cane grown in the Hawaiian Islands. Honolulu is the capital and largest city.



in Honolulu, Hawaiian Islands.



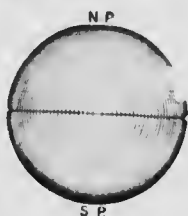
New Guinea canoe, with sail made of bark

AUSTRALIA AND ISLANDS OF THE PACIFIC.

- I. HISTORY OF AUSTRALIA. Founding. Settlement. Government. Colonies. Cities. Trade relations.
- II. DESCRIPTION OF AUSTRALIA. Surroundings. Surface. Vegetation: native; cultivated. Animals. People.
- III. ISLANDS OF THE PACIFIC. New Zealand. Tasmania. Fiji Islands. New Guinea. Hawaiian Islands.

Latitude and Longitude.

Take a large apple, or make a sphere out of clay to represent the earth. Scratch a line for the equator, and mark the north and the south poles.



In passing from the equator to the north pole, what part of the distance round the earth do you travel? For convenience in telling how far any place is from the equator, the distance from the equator to either pole is divided into ninety parts, called *degrees of latitude*. How many degrees is it, then, from the north pole to the south pole? What point would you reach if you were to travel 90° (ninety degrees) north from the equator? Montreal is 45° north of the equator. How many degrees is it south of the north pole? The Isthmus of Suez is one third of the way from the equator to the north pole. How many degrees north is it?

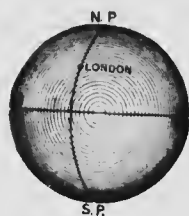
The mouth of the Mississippi is 30° north latitude. Put a dot on your sphere to show where the mouth of the Mississippi is.

London is 51° north latitude; scratch a spot on your sphere to represent it.

Scratch a line from the north pole to the south pole through this dot. A north and south line from the north pole to the south pole on a globe or map is called a *meridian*.

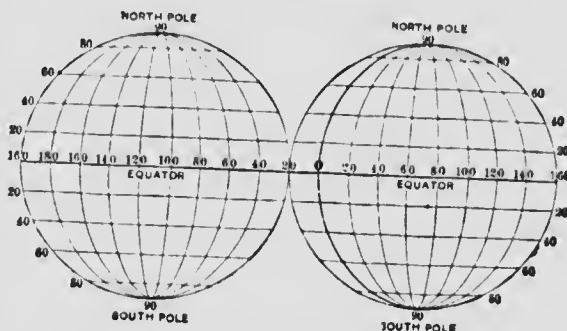
In a part of London called Greenwich there is a fine *observatory*, where astronomers observe the stars. The meridian passing through the Greenwich observatory is called the *prime meridian*, from which distances east and west are measured.

How many degrees are there between the equator and the north pole? How far around the world is that? How many degrees, then, would you pass if you traveled all the way



around the world to your starting point? The distance east or west from the prime meridian is measured in degrees, called *degrees of longitude*. If you traveled east or west from the prime meridian all the way around the world to the prime meridian again, you would have passed 360° of longitude.

How many degrees would you pass in going halfway around the world? Suppose John starts from the meridian of Greenwich and travels west, and Charles travels east from the same point and just as fast as John goes west, how many degrees of west longitude will John have passed over when the two boys meet? How many degrees of east longitude will Charles have passed over? The line on this map marked 180° is how far around the world from the meridian of Greenwich?



The mouth of the Mississippi is 30° north latitude, and 90° west longitude. Now scratch a place on your sphere about where it is.

In order to tell how far north or south a place is, small circles, parallel to the equator, and hence called *parallels*, are drawn on maps. The parallels shown on the maps above are 20° apart. In order to tell how far east or west from the meridian of Greenwich any place is, meridians are usually drawn on maps. The meridians on these maps are 20° apart.

Cape Horn is 56° south. It is also 67° west. Put a dot where it belongs. Singapore is 2° north and 104° east. Put a dot where it belongs.

CORRELATIONS AND COMPARISON

How does the land surface of the globe compare in extent with the water surface? About which pole is the larger ocean? Which oceans extend from one polar region to the other? Which ocean is really a great bay? Compare the Atlantic and Pacific oceans in number of tributary rivers, and in steepness and irregularity of coasts. Compare them in the number of civilizations on their coasts, and in number of seaports.

to compare the northern and southern hemispheres as to land and water. Name the great divisions in the order of their size.

Locations. — What grain grows wholly in the northern hemisphere? What grains are raised by the equator? By the Trop. of Cancer? By the Tropic of Capricorn? By the polar circle?

Outlines. — What is the largest division has the most regular outline? The most irregular outline? Name the peninsulas of Eurasia. Of North America. What is the largest sea nearly inclosed by a continent? How is it connected with the oceans?

Highlands. — What highland is between the Cape of Good Hope and the Red Sea? What plateaus between the Red Sea and Bering Strait? What mountains? What part of the highland of Eurasia is included in the line of highlands which extends from the Red Sea to Bering Strait? What line of highlands extends from Bering Strait to Cape Horn? What plateaus does it include? What mountains? Beginning at the Cape Horn, name under the plateaus and mountain ranges of the great highland regions which extend from the Cape of Good Hope. Beginning with South America, name the mountains of the world which are included in the preceding list.

[illegible]

Plains — Where are the grassy plains of Eurasia? Where are the grassy plains of America? Of Africa? Of Australia? Of North America? In South America? In Eurasia? In Africa? In Australia? In North America? What are the llanos? What are the llanos?

People.—Make a list of cities found in the highland regions of the world. In the lowland regions. Which list is the longer? Which land division has the most people? Which one second in population? Which is the best? Which race went to Australia from Europe? What races live in Africa? Which were there first? From what land division? What races live in Europe? In Asia? In America? In Africa? In Australia? In each of these divisions, does each mostly live? What is the principal "home" of the Negro? Which came here? From what land division? What race has spread over the whole world as conquerors? What race was spread over the Western Continent to serve as slaves?

Rainfall.	How much does most rain fall? In
What part of year?	When most frequent? What
How many rivers flow from their basins in	
World?	Which are the driest regions of
Why?	

Natural Products. Find a list of the
 chief food plants which are raised at Put
 tiffville, and the animals which are grown.
 Note the climate. Find out the regions
 where the principal export products are
 found. Make a list of the regions
 where the principal food crops are raised.
 Find out whether the principal food crops
 are raised in the same climate. In surface. Tell
 me the principal products. Make a list of the
 principal products which you have learned about. Put
 opposite each the name of the division where it is found.

Manufactures.—What have you learned are the two great manufacturing grand divisions? What minerals are found in those grand divisions? Which grand division is the most important? Why?

1. Through what European countries does the meridian of Greenwich pass? 2. What meridian passes through the Cape of Africa? Through what meridian passes the Cape of Good Hope? 3. Near what island does the meridian of the Cape of Good Hope pass? 4. What meridian passes through Nova Scotia? Through what countries of North America does it pass? 5. What country of South America does it pass? 6. What country of South America is directly south of the Isthmus of Panama? 7. What countries of North America are north of the Isthmus of Panama?

Japan Islands or the British Isles farther than any country of North America is in the same latitude as the British Isles? Compare the climate of these countries. What countries of Europe are in about the same latitude as Toronto? Compare their climate with that of Ontario. Which is colder—Cape Horn or Cape of Good Hope? Why? Compare the West Indies with the Sahara in latitude; in climate. Explain the difference.

SUPPLEMENT.

AREA AND POPULATION OF THE BRITISH EMPIRE.

(According to the Statistical Year Book, 1905.)

EUROPE—

	Area in Sq. Miles.	Pop.
United Kingdom.....	121,780	42,780,552
Gibraltar.....	2	19,032
Malta and Gozo.....	117	197,070
Total European.....	121,500	43,005,654

ASIA

British India.....	1,087,404	231,890,000
Protectorate States.....	679,390	63,161,000
Total Indian.....	1,766,794	295,051,000
Aden and Perim.....	80	41,910
Ceylon.....	25,481	3,740,562
Hong Kong.....	30	320,724
Labuan.....	30	8,411
Straits Settlements.....	1,526	589,881
British North Borneo.....	31,106	200,000
Federated Malay States.....	26,350	801,240
Hong-Kong leased territory.....	376	102,254
Verlharwei.....	285	124,000
Lawak.....	50,000	500,000
Total Asian.....	135,264	6,428,982

AFRICA

Ascension.....	35	400
Bombay.....	10,293	348,848
Cape Colony.....	276,995	2,409,804
Mauritius.....	729	374,644
Natal.....	36,170	1,039,787
St. Helena.....	47	3,500
Orange River Colony.....	50,000	385,000
Transvaal.....	117,732	1,135,000
Gambia.....	69	
Gold Coast.....	71,300	
Lagos.....	3,420	
Sierra Leone.....	4,000	
Rhodesia.....	582,000	
Bechuanaland.....	275,000	
Central Africa Protectorate.....	40,980	

AFRICA—Con.

	Area in Sq. Miles.	Pop.
East Africa Protectorate.....	180,482	2,400,000
Uganda.....	89,400	1,650,000
Zanzibar Protectorate.....	1,020	200,000
Nigeria.....	364,704	10,000,000
Lagos Protectorate.....	23,280	1,024,300
Gold Coast Protectorate.....	48,000	107,000
Sierra Leone Protectorate.....	30,000	950,000
Gambia Protectorate.....	3,057	155,000
Somaliland Protectorate.....	60,000	300,000
Total African.....	2,278,753	26,220,791

AMERICA—

Bermudas.....	19	19,455
Canada.....	3,019,819	5,528,847
Falkland Islands and South Georgia.....	7,500	2,044
British Guiana.....	109,000	295,848
British Honduras.....	7,562	38,981
Newfoundland and Labrador.....	162,734	224,192
West Indies and Bahamas.....	4,404	53,735
Jamaica and Turk's Islands.....	4,373	800,685
Barbados.....	166	197,792
Leeward Islands.....	700	130,434
Windward Islands.....	499	167,067
Trinidad and Tobago.....	1,938	300,000
Total American.....	3,918,644	7,759,080

AUSTRALASIA

Fiji.....	7,740	117,696
New Guinea.....	90,540	350,000
also.....	104,470	832,505
also.....	9,700	1,431,620
also.....		515,530
also.....		368,823
also.....		179,184
also.....		1,208,354
also.....	55,920	226,954
also.....	3,175,659	5,230,975

AREAS AND POPULATIONS.

(According to the Statesman's Year Book, 1905.)

THE EARTH.

	Area in Sq. Miles.	Population.
The Land	52,361,000	1,578,500,000
North America.....	9,350,000	105,000,000
South America.....	6,888,000	37,000,000
Europe.....	3,943,000	386,000,000
Asia.....	16,956,000	873,000,000
Africa.....	11,515,000	171,000,000
Australia, etc.....	3,456,000	6,500,000
S. Polar Islands.....	253,000	
The Sea	144,500,000	
Atlantic Ocean.....	34,000,000	
Pacific Ocean.....	71,000,000	
Indian Ocean.....	28,000,000	
Antarctic Ocean.....	7,500,000	
Arctic Ocean.....	4,000,000	
Total Surface	196,900,000	

NORTH AMERICA.

United States.....	3,567,000	76,356,000
British America.....	3,771,000	6,000,000
Danish America.....	878,000	79,000
Mexico.....	767,000	12,500,000
Central America.....	180,000	3,010,000
West Indies.....	94,000	5,488,000
Cuba.....	44,000	1,572,000

SOUTH AMERICA.

Brazil.....	3,218,000	16,000,000
Argentina.....	1,135,000	5,022,000
Paraguay.....	157,000	630,000
Uruguay.....	72,000	978,000
Chile.....	307,000	3,146,000
Peru.....	696,000	4,610,000
Bolivia.....	703,000	1,633,000
Colombia.....	504,000	4,000,000
Venezuela.....	594,000	2,444,000
Guiana, British.....	104,000	285,000
Guiana, Dutch.....	46,000	72,000
Guiana, French.....	30,000	32,000
Ecuador.....	116,000	1,205,000

EUROPE.

British Isles.....	122,000	42,789,552
Empire of Germany.....	208,000	56,367,000
France.....	207,000	38,961,000
Russia.....	2,095,000	106,000,000
Austria-Hungary.....	265,000	45,404,000
Italy.....	110,000	31,856,000
Switzerland.....	16,000	3,315,000
Spain.....	195,000	18,618,000
Portugal.....	34,000	5,016,000
Netherlands.....	12,000	5,347,000
Belgium.....	11,400	6,693,000
Norway.....	125,000	2,240,000
Sweden.....	174,000	5,198,000
Denmark.....	15,300	2,464,000
Turkey.....	66,000	6,150,000
Romania.....	50,700	5,912,000
Servia.....	19,000	2,493,000
Greece.....	25,000	2,433,000
Montenegro.....	3,630	228,000
Bulgaria.....	37,200	3,744,000

ASIA.

	Area in Sq. Miles.	Population.
India.....	1,766,000	300,000,000
French Indo-China.....	256,000	18,000,000
Siam.....	220,000	5,000,000
Chinese Empire.....	4,277,000	426,047,000
Japanese Empire.....	148,000	46,542,000
Asiatic Russia.....	6,564,000	22,698,000
Korea.....	82,000	10,000,000
Afghanistan.....	215,000	4,000,000
Baluchistan.....	132,000	1,050,000
Persia.....	628,000	9,500,000
Asiatic Turkey.....	693,000	17,000,000
Arabia.....	1,000,000	1,050,000
East Indies.....	774,000	39,458,000

AFRICA.

Egypt.....	400,000	9,821,000
Br. Eg. Sudan.....	950,000	10,830,000
Morocco.....	220,000	5,000,000
Algeria.....	185,000	3,500,000
Tunis.....	51,000	1,806,000
Tripoli.....	340,000	1,000,000
Sahara.....	2,000,000	2,550,000
Sudan.....	2,000,000	50,000,000
Abyssinia.....	150,000	3,500,000
Kongo St.....	900,000	30,000,000
Cape Colony.....	276,000	2,500,000
Other Br. S. Africa.....	767,000	2,695,000
Orange River Colony.....	50,000	385,000
Natal River Colony.....	117,000	1,354,000
Portuguese S. Africa.....	827,000	13,200,000
Somaland.....	813,000	1,092,000
German S. Africa.....	691,000	3,100,000
Madagascar.....	220,000	2,505,000

AUSTRALIA.

New South Wales.....	311,000	1,359,000
Victoria.....	88,000	1,201,000
Queensland.....	668,000	503,000
South Australia.....	904,000	362,000
West Australia.....	976,000	84,000
Tasmania.....	26,000	172,000

PRINCIPAL ISLANDS AND GROUPS.

Borneo group.....	284,000	1,740,000
Cumry Islands.....	2,800	358,000
Celebes group.....	77,000	1,500,000
Ceylon.....	25,000	3,578,000
Cuba group.....	44,000	1,575,000
Greenland.....	838,000	10,000
Great Britain.....	88,600	36,733,000
Haiti.....	30,000	2,000,000
Hawaiian Islands.....	6,500	154,000
Iceland.....	40,000	78,000
Ireland.....	32,500	4,458,000
Jamaica.....	4,200	785,000
Japan Islands.....	148,000	46,542,000
Java group.....	51,000	28,746,000
Madagascar.....	220,000	2,505,000
Newfoundland.....	42,200	217,000
New Guinea group.....	312,000	660,000
New Zealand group.....	104,000	772,000
Philippine Islands.....	128,000	8,000,000
Puerto Rico.....	3,500	953,000
Sumatra group.....	180,000	3,783,000
Tasmania.....	26,000	172,000

POPULATION OF THE PRINCIPAL CITIES OF THE WORLD.

(According to the Statesman's Year Book, 1905.)

NORTH AMERICA.		Pern.		Italy.		China.	
Canada.		Uruguay.					
Montreal	267,730	Monte Video	226,000	Naples	563,000	Peking	1,500,000
Toronto	208,041	Venezuela.		Rome	462,000	Canton	880,000
Quebec	68,840			Milan	491,000	Tien-tsin	750,000
Ottawa	59,928			Turin	335,000	Shanghai	620,000
Hamilton	52,634			Palermo	309,000	French Indo-China.	
Winnipeg	47,340	EUROPE.		Genoa	234,000	Hanoi	150,000
Halifax	40,832	Austria-Hungary.		Florence	205,000	Hue	80,000
St. John	40,711	Vienna	1,674,000	Venice	151,000	Japan.	
London	37,983	Budapest	732,000	Netherlands.		Tokio	1,818,000
St. John's	29,594	Prague	201,000	Amsterdam	535,000	Osaka	995,000
Vancouver	26,133	Trieste	134,000	Rotterdam	348,000	Kioto	380,000
Victoria	20,816	Balkan States.		The Hague	232,000	Yokohama	320,000
United States.		Constantinople	1,125,000	Norway and Sweden.		South-Western Asia.	
(See page 72.)		Bucharest	282,000	Stockholm	305,000	Tehran	280,000
Mexico.		Athens	111,000	Christiania	227,000	Damascus	225,000
Mexico	344,000	Salonien	105,000	Portugal.		Smyrna	201,000
Guadalajara	101,208	Belgrade	69,000	Lisbon	356,000	Tabriz	200,000
Central America.		Belgium.		Oporto	167,000	Bagdad	145,000
Guatemala	74,000	Brussels	562,000	Russia.		Aleppo	127,000
San Salvador	59,000	Antwerp	278,000	St. Petersburg	1,267,000	Kabul	60,000
Leon	45,000	Ghent	163,000	Moscow	989,000	Mecca	60,000
Managua	30,000	Lugo	160,000	Warsaw	638,000	Jerusalem	42,000
San José	25,000	British Isles.		Odessa	405,000	East India.	
West Indies.		Greater London	6,806,000	Riga	283,000	Manilla	302,000
Havana	275,000	Glasgow	786,000	Spain.		Batavia	115,000
Port-au-Prince	50,000	Liverpool	684,000	Madrid	539,000	AFRICA.	
Kingston	47,000	Manchester	544,000	Barcelona	533,000	Cairo	570,000
Santiago de Cuba	43,000	Birmingham	522,000	Valencia	213,000	Alexandria	318,000
SOUTH AMERICA.		Leeds	428,000	Seville	148,000	Tunis	170,000
Argentina.		Sheffield	381,000	Switzerland.		Cape Town	167,000
Buenos Ayres	965,000	Belfast	349,000	Zurich	169,000	Johannesburg	158,000
Bolivia.		Bristol	320,000	Balo	120,000	Fez	140,000
La Paz	60,000	Edinburgh	327,000	Geneva	110,000	Morocco	140,000
Brazil.		Dublin	280,000	Berne	68,000	Tananarivo	100,000
Rio Janeiro	750,000	Bradford	279,000	ASIA.		Algiers	96,000
Bahia	200,000	Denmark.		Asiatic Russia.		Durban	79,000
Pernambuco	190,000	Copenhagen	378,000	Tiflis	160,000	Port Said	50,000
Para	40,000	France.		Tashkent	156,000	Zanzibar	50,000
Chile.		Paris	2,714,000	Irkutsk	52,000	Kimberley	29,000
Santiago	296,000	Lyons	459,000	OCEANIA.		Melbourne	496,000
Valparaiso	132,000	Marseilles	491,000			Sydney	482,000
Colombia.		Bordeaux	257,000			Aifelaide	165,000
Bogota	120,000	Lillo	210,000			Brisbane	119,000
Medellin	53,000	Toulouse	150,000			Auckland	67,000
Ecuador.		Havro	120,000			Dunedin	52,000
Quito	80,000	Germany.				Wellington	49,000
Guayaquil	51,000	Berlin	1,888,000			Honolulu	39,000
Guyana.		Hamburg	705,000			Hobart	25,000
Georgetown	53,000	Munich	499,000				
Paramaribo	31,000	Leipzig	456,000				
Cayenne	12,000	Breslau	422,000				
Paraguay.		Dresden	393,000				
Ascension	51,000	Cologne	372,000				
		Frankfort	289,000				

HEIGHT OF NOTED MOUNTAINS.

Name.	Location.	Height in feet.
Agoncagua.....	Chile.....	22,422
Ararat.....	Turkey.....	17,260
Chimborazo.....	Ecuador.....	21,420
Dapsang.....	Tibet.....	28,278
Ellaurz.....	Russia.....	18,526
Everest.....	India.....	29,002
Kema.....	East Africa.....	18,045
Kilauea.....	Hawaiian Islands.....	4,040
Kilimanjaro.....	East Africa.....	19,000
Kumlingjunga.....	India.....	28,156
Logan.....	Canada.....	19,500
Mauna Loa.....	Hawaiian Islands.....	13,600
Mitchell.....	North Carolina.....	6,711
Mt. Blanc.....	France.....	15,810
Orizaba.....	Mexico.....	17,380
Pike's Peak.....	Colorado.....	14,147
Popocatepetl.....	Mexico.....	17,784
St. Elias.....	Alaska.....	18,010
Shasta.....	California.....	14,440
Vesuvius.....	Italy.....	3,948
Washington.....	New Hampshire.....	6,288
Whitney.....	California.....	14,808

RIVERS AND RIVER BASINS.

River.	Area of Basin, Square Miles.	Length in Miles.
Amazon.....	2,500,000	4,000
Kongo.....	1,500,000	3,000
Nile.....	1,400,000	4,000
Mississippi (Missouri).....	1,250,000	4,200
Plata.....	1,250,000	2,300
Yangtze.....	500,000	3,300
Volga.....	500,000	2,300
Ganges.....	450,000	1,800
St. Lawrence.....	350,000	2,000
Danube.....	300,000	2,000
Orinoco.....	300,000	1,500
Columbia.....	250,000	1,400
Colorado.....	250,000	1,100

THE TRADE OF CANADA.

I. The Growth of Trade During the Last Thirty-five Years.

	Exports.	Imports.	Total.
1870.....	\$73,573,490	\$74,814,330	\$148,387,820
1880.....	\$7,911,458	\$6,489,747	14,401,205
1890.....	96,749,149	121,858,241	218,607,390
1900.....	191,894,723	189,622,513	381,517,236
1904.....	213,521,235	259,211,803	472,733,038

II. Exports and Imports of 1904.

Exports.	
Grain, Flour, etc.....	\$37,138,875
Meats.....	16,348,130
Live Stock.....	12,462,851
Dairy Produce.....	28,908,721
Fruit.....	5,475,535
Minerals.....	33,626,739
Lumber and Manufactures.....	36,725,145
Fish.....	10,759,029
Other articles.....	32,076,210

Imports.	
Metal Goods.....	\$51,839,056
Woolens.....	16,854,931
Cottons.....	8,464,969
Silks.....	4,135,455
Linens.....	4,344,394
Coal.....	21,562,053
Breadstuffs and Provisions.....	12,986,741
Sugar.....	9,819,191
Tea.....	4,095,440
Fruit.....	4,025,499
Hides and Leather.....	6,988,730
Other articles, including those re-exported to other countries.....	112,595,354

III. Trade with Other Countries, 1904.

Country.	Exports.	Imports.	Total.
British Empire....	\$128,767,268	\$ 73,544,698	\$202,311,966
United States.....	73,173,549	156,997,180	230,170,729
Germany.....	1,819,223	8,028,544	9,847,767
France.....	153,462	6,289,362	6,442,824
Belgium.....	1,126,417	3,392,384	4,518,801
Japan.....	342,116	1,098,800	2,340,917
Cuba.....	821,982	367,808	1,189,790
Other Countries....	7,317,218	8,593,026	15,910,244
Total.....	\$213,521,235	\$259,211,803	\$472,733,038

