have been straightened and deepened for navigation, and canals dug around rapids, and from ocean to ocean. For use in irrigation, river water has been led over arid lands; and lakes and ponds have been formed to secure steady water supply for irrigation and for other purposes. Each of these acts of man interferes with natural conditions.

Along the seacoast, walls are built to check the work of the waves. To better fit them for shipping, harbors and channels are dredged; jetties and sea walls are built to prevent currents from closing harbor mouths with sand bars; and, by building breakwaters, harbors are actually made by artificial means.

Much change is made on the dry land also. The ground is pierced with wells for water, oil (Fig. 542), and gas, and these substances are led to the surface. In the removal of coal, iron, and other mineral products, the strata are honeycombed with shafts and tunnels (Fig. 541); and in quarrying, and in removing clay and sand, hills are lowered and deep pits made. Tunnels are dug through mountains (Fig. 186) and deep cuts made in hillsides, while great embankments are built of the rock removed. Earth and rock are removed in making roads and in digging cellars; and, over great areas, the soil, by being loosened and overturned in plowing, is exposed to the weather.

These are some of the ways in which man is at work overcoming obstacles which nature has placed in the way of his advance. Civilized man brooks no obstacle; he removes it where necessary; he is everywhere at work modifying nature to serve his needs; and he is utilizing his surroundings, and the forces of nature, to help in his onward march toward higher civilization. In this respect man stands apart from all other forms of life.

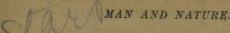
Summary.— In a multitude of ways man is influencing nature: destroying, modifying, or extending the range of animals and plants; removing the forest, thus allowing the rain to run off rapidly and carry away the soil; changing or controlling streams; improving or making waterways; forming lakes; interfering with the natural action of oceanic agencies; boring into the earth and removing materials; and exposing soil and rock to the weather. In fact, he is overcoming all obstacles and making nature serve his needs.



Fig. 541. — A coal mine at Shenandoah City, Pa. Here the ground is honeycombed with shafts and tunnels, and vast quantities of coal are removed, together with associated rock, great piles of which are seen near the buildings.



Fig. 542. — Each of these derricks marks the site of a boring for oil at Tidioute, Pa., in 1870. From these wells large amounts of oil were obtained.



## DISTRIBUTION OF MANKIND.

252. The Spread of Man. — During the development of man, as outlined above, he has migrated to almost all lands. Starting from some common center, he spread slowly, guided by the same laws as animals, and influenced by the same barriers. But man's superior intelligence has permitted him to spread farther than any species of animal, and to adapt himself to all climates. Even as a savage he reached every continent and most oceanic islands. The use of boats aided him in crossing the ocean barrier; and, by means of clothing and shelter, he has overcome the barriers of cold climates.

The spread of man has been in part a slow, steady advance outward in all directions, as in the case of animals, and in part a rapid migration in large numbers. It was such rapid spread that led to the building of the great Chinese wall (Fig. 543) as a barrier to the hordes that moved outward from central Asia. Similar hordes from Asia overran Europe; and still others crossed the Alps and advanced to Rome. The spread of man has often been a part of warfare and conquest. This is illustrated by the Roman Empire which, by conquest, caused the diffusion of Romans and Roman civilization, not only along the Mediterranean shores, but throughout western Europe, even as far as the British Isles.

The discovery of new lands, especially in the New World, has had a great influence on the spread of man. By the time of Columbus there had been such advance in knowledge of sailing, including the coming into use of the compass, that even the ocean could be crossed at will. The much higher civilization of Europeans enabled them to displace the savage occupants, not only of America, but of Australia and the more attractive parts of Africa. Commerce is at present aiding in the general spread of man.

Summary. — The spread of primitive man was influenced by the same laws and barriers that affect animals; but man's superior



great Chinese wall, built to prevent invasion by hordes of Mongolians, spreading outward from central Asia. A part of the

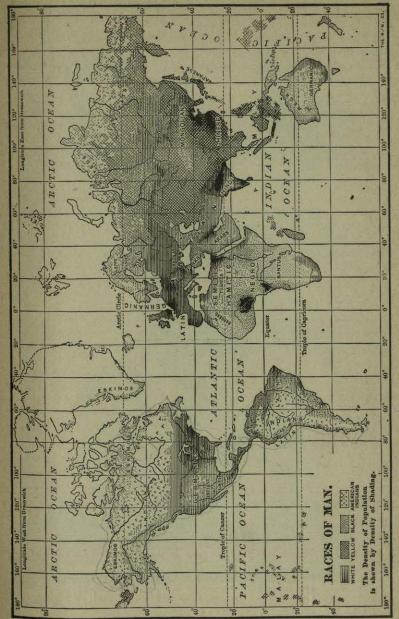
intelligence, and especially the use of boats, clothing, and shelter, has made it possible for him to spread much farther. Man's spread has been in part slow migration, in part rapid movement in large numbers, often as a part of warfare and conquest. The discovery of new lands, occupied by savages whom he could displace, has greatly helped in man's spread; and commerce is now aiding it further.

253. Races of Mankind. — Although there are decided differences among men, all are believed to have come from the same stock. Through the influence of climate, and other surrounding conditions, they have become varied in color, form, and habits. On account of these differences it is customary to divide mankind into several classes, or races. There is (1) the black, or negro (Ethiopian) race; (2) the yellow (Mongolian) race; (3) the red, or Indian (American) race; and (4) the white (Caucasian) race. A fifth division, the brown (Malay) race (Fig. 545), is often recognized.

Because there has been a mixture of blood wherever they have come in contact, the boundaries between these races are not distinct (Fig. 544). Moreover, the members of one race have often migrated into the territory of another. Thus the Finns and Hungarians, though surrounded by Caucasians, are Mongolian in origin.

The red men were originally confined to the American continent, and have never migrated to other regions. But other races have spread widely. In modern times the Mongolians have spread very little, and the negroes have spread mainly through the influence of white men, who have carried them as slaves, especially to the New World. The white race, on the other hand, has migrated extensively, taking the place of weaker and less well-fitted people. This is well illustrated in America, where the Indians have been slowly driven back by the aggressive, civilized Caucasians.

Summary. — Mankind is divided into four main races: (1) the black, or Ethiopian; (2) the yellow, or Mongolian; (3) the red, or American; and (4) the white, or Caucasian. Because of intermixture and migration, the boundaries between these races are by no means distinct. The white race is now rapidly extending its range and influence, and is taking possession of the earth.



of the four races Sketch map, showing the

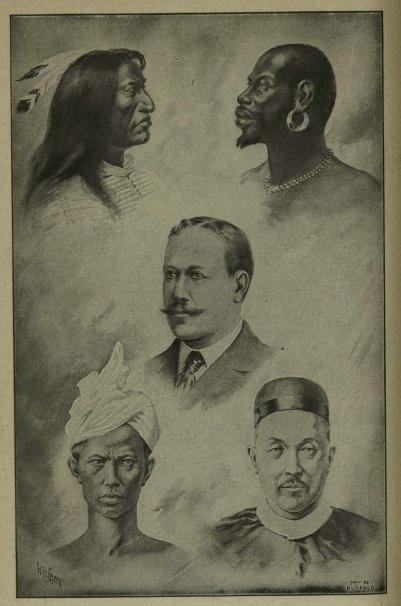


Fig. 545.—Races of mankind. Red, or Indian, upper left; black, or Ethiopian, upper right; white, or Caucasian, middle; yellow, or Mongolian, lower right; brown, or Malay (a branch of the yellow race), lower left.

## CHARACTERISTICS OF THE RACES OF MANKIND.1

	ETHIOPIAN.	Mongolian.	AMERICAN.	CAUCASIAN.
Former kome.	Africa, south of Sahara; Madagascar; Australasia (for example, Philippine Negritos).	Probably highlands of Tibet,	New World.	North Africa.
Present exten- sion.	Africa; United States; West Indies; Nic- aragua; Guiana; Brazil.	China; Indo-China; North Asia; Korea; Japan; Malaysia; Turkestan; Asia Mi- nor; Russia (Baltic); Balkan Peninsula; Hungary.	in Mexico, Central America, South America, and west-	All of Europe; India; northern, central, and western Asia; America; South Africa; Austral- asia; New Zealand; in fact, over almost all the world.
Physical charac- teristics.	Long, narrow head; projecting jaws; broad, flat nose; thick lips, rolled outward; large, round, black eyes; deep brown color, rarely black; short, black, woolly hair; scanty beard; height above average.	Broad, round head; moderately projecting jaws; small, concave nose; thin lips; small, oblique, black eyes; color yellowish, pale, and even white; long, coarse, black hair; no beard; height below the average.	Head both long and round; slightly projecting, massive jaws; aquiline nose; small, black eyes; color coppery, shading to velowish or brown; hair long, coarse, black; scanty beard; height variable.	Two types: (1) fair; head long; moderately large, blue or gray eyes; long flaxen, brown, or red hair; height above the average; (2) dark; head long in south, round in north; large black eyes; hair wayy, curly, brown or black. In both types jaws small, nose large, straight, or aquiline.
Mental charac- teristics.	Unintellectual; un- progressive; no sci- ence or letters; few arts beyond agricul- ture and simple weaving, pottery making, etc.; re- ligion very crude, including witch- craft, nature wor- ship, and human sacrifice,	Sullen; sluggish; industrious in temperate zone, elsewhere indolent; arts and letters moderately developed; science slightly; their culture not of modern kind. In religion some are pagans, but most are Buddhists and Mohammedans.	Stern; moody; not emotional; vary from savagery to barbarism; slight knowledge of arts, for example, agriculture, pottery, etc. Highest had rude knowledge of letters and some simple science. Religion a superstition, with nature worship and human sacrifice.	Fair type solid and even stolid; dark type fiery and fickle. Both active and enterprising. Solience, letters, and art highly developed. Religion varies from belief in one God to belief in several, and includes Christianity, Judaism, Mohammedanism, Brahmanism.
Numbers.	Africa 150,000,000 Madagas- car 3,000,000 America 20,000,000 Austral- asia 2,000,000 175,000,000	China, 380,000,000 Japan and Korea, 55,000,000 Indo-China, 35,000,000 Malaysia, 2 Rest of Asia, 36,000,000 Miscellaneous, 4,000,000 Total, 540,000,000	Full blood, 9,900,000 Half-breeds, 12,270,000 Total 22,170,000 Most in Mexico (8,765,-000); Brazil, 4,200,000; 250,000 in United States.	Asia, 280,000,000 America, 115,000,000 Africa, 15,000,000 5,000,000

<sup>&</sup>lt;sup>1</sup> Based on table in Mill's International Geography.

<sup>2</sup> The brown race (Fig. 545), often recognized as a fifth division of the human race, is here included among the Mongolians.

## INFLUENCE OF SURROUNDINGS.

254. Man in the Arctic. — Agriculture is impossible in the Arctic, and there is too little plant food to support human life (Fig. 486). Under such unfavorable conditions, the inhabitants of the North must look to animals for food; and,



Fig. 546.— Natives near the timber line in northern Asia. Both the dog and reindeer are domesticated.

as these are most abundant in the sea, the shores of the Arctic are inhabited by a sparse population. On the tundras of Europe and Asia, the reindeer is domesticated, making it possible for more people to live than otherwise could. The caribou is not

used by the Eskimos; but Siberian reindeer have recently been introduced into Alaska.

Life in the Arctic is well illustrated by the Eskimos (Figs. 524, 525), who live along the coast, depending for food chiefly on birds, seal, walrus, and bear. The extent to which these interesting people depend on animals is shown by the following: they obtain from them most of their food; skins for their clothing and summer tents, or tupics; bone for their spears; and bone framework and skins for their boats, or kayaks. Wood, occasionally drifted to their shores, is one of their most highly prized possessions.

To live amid such surroundings requires great hardiness and constant effort; and death by starvation is not uncommon. The Eskimo has to work hard in order to obtain the barest necessities, and there are no luxuries. How difficult his life must be is indicated by the disasters which have befallen many Arctic explorers. Such surroundings offer little opportunity for advance,

Summary. — The Arctic is sparsely populated, mainly along the coast where there is most animal food; but in the Old World the reindeer is domesticated, increasing man's chance of living. The Eskimo depends on animals for food and materials for shelter, clothing, and boats. Life in the Arctic is so hard that there is little chance for advance, all the energies being needed for obtaining the barest necessities.

255. Man in the Tropical Zone. —Conditions in the tropical zone are quite opposite to those in the Arctic. There man is surrounded by an abundance of food, both plant and animal, and he requires little clothing (Fig. 522) or shelter (Figs. 527, 529, 530). All his needs are met with slight effort, and there is little cause for work. Moreover, the climate, especially if damp, is unfavorable to work. Under such conditions man resembles animals in being content with bare necessities. Being so easily satisfied, he cannot advance far in civilization.

It is for these reasons that some of the most uncivilized peoples of the world to-day are found in hot climates. The Indians of Central and South America, the negroes of central Africa, the Australian natives, and the Negritos of the Philippines are examples. Among many of these people, as among animals, the eating of one another, or cannibalism, is still practiced. They live in the most primitive way, — lazy, unintelligent, superstitious, human animals. Yet they talk, they think a little, and they know the use of simple implements. When brought under the influence of civilization they advance, showing that it is only surrounding conditions that have kept them so low.

Summary. — In the tropical zone the ease of obtaining food, and the small amount of clothing and shelter necessary, call for little work, to which the hot, damp climate is unfavorable. It is for these reasons that the least civilized races are found in the tropical zone.

256. Man in the Temperate Zone. — This zone has been the birthplace of civilization, mainly for the following reasons:

(1) while there is an abundance of food in summer, there

is little in winter. It has, therefore, been necessary to secure food in summer and store it for winter use. This requires energy, intelligence, and foresight; yet the amount of work necessary is not great enough to discourage or to prevent advance. (2) Both clothing and shelter are needed, and to provide these also requires intelligence, ingenuity, and energy. (3) The lands of the temperate zone are irregular, and the climate varied. This has led to the growth of different crops in different sections; and the people of one section, desiring the products of another, have opened communication with them. From this has arisen commerce, leading people of one region to learn from those of another.

To meet the needs of winter, the people of the temperate zone have developed the habit of cultivating crops, and have devised means of making work easier. They have domesticated animals for food and as aids in their work; they have made implements; have learned how to use metals; have developed the art of building; have discovered the use of fire; in fact, in supplying their needs they have learned to call all nature to their aid. The civilization that developed in the north temperate zone has now spread to all zones.

Summary. — The need of providing food, clothing, and shelter for winter has caused people of the temperate zone to advance; and the varied products of different sections have given rise to commerce. In this advance the cultivation of crops, the domestication of animals, the art of building, and the use of metals and fire have been learned. Thus modern civilization has arisen.

257. Man in the Desert. — Living on a desert resembles life in the Arctic in the fact that there is so little food that men often die of starvation. But the nomads of the desert (p. 89) have domestic animals, — cattle, horses, and camels especially, — which help them greatly. Their mode of life makes these wanderers intelligent and brave, otherwise they could not live amid such surroundings; but they do not hesitate to seize from others the goods they need.

Desert conditions are so unfavorable that people more civilized have not entered to crowd the nomads out; and the desert barrier prevents the inhabitants from learning of others. For this reason, customs of the time of Christ are to-day preserved among the inhabitants of the Old World deserts.

On oases conditions are very different, for there agriculture is possible. Large oases, such as the valleys of the Euphrates and Nile, have been cradles of ancient civilization. Civilization early developed in such situations because it was necessary to work in order to store up food for the season when crops will not grow; and the surrounding desert served to protect the stores of food from invaders.

Both in the Euphrates and Nile valleys, and in other oases of the Old World, there developed a wonderful ancient civilization, which spread along the shores of the Mediterranean. This ancient culture is the foundation of our modern civilization. The oases were favorable to the beginning, and the Mediterranean to the spread of civilization (p. 377); but the desert barrier has interfered with the introduction of the modern civilization which has developed in other parts of the temperate zone. Consequently, these cradles of ancient civilization are now far behind the world.

The most advanced of the American Indians were those that lived in similar situations. The Pueblo Indians of New Mexico, the Aztecs of Mexico, and the Incas of South America lived in positions where agriculture was possible, and where deserts or mountains offered partial protection from invasion. When discovered, these red men were barbarians, far higher than the other Indians, who were savages.

Summary.— Because of lack of food and water, desert conditions are 'unfavorable, and the inhabitants are scattered and nomadic, though greatly aided by their domestic animals. The desert barrier prevents them from learning from others, and hence they preserve many ancient customs. The oases, however, were cradles of ancient civilization, because (1) agriculture was possible; (2) it was necessary to provide food for the unfavorable seasons; and (3) the desert protected the inhabitants from invasion.

258. Influence of Mountains.— There is no part of the world where, in so short a distance, there are found races so different as those on the north and south sides of the Himalayas. These mountains have served as great walls (p. 106), hindering the migration of man as well as of animals; and it was partly because of their protection that the people of India became so civilized in very ancient times. Yet even these mountain barriers were crossed, although with great difficulty. Much the same is true of the Alps, whose protection helped to make the powerful Roman Empire possible.

When their country is invaded, people often retreat to mountains; for there is little about mountains to attract invaders, and entrance is difficult, while the passes and valleys are easily defended. For these reasons the Welsh and Scotch, who occupied the more mountainous parts of Great Britain, were far less affected by the inroads of invaders than the inhabitants of other sections of the island. To this day their ancient language is spoken, and sermons are even preached in it. In the Pyrenees there is a small group of people, called the Basques, who still retain an ancient language no longer spoken by others. In the single small country of Switzerland four languages are now spoken, — German, French, Italian, and Rætho-Romisch dialect.

Among mountain people ancient customs, as well as languages, are preserved. For example, homespun is still used in the mountains of eastern Kentucky; and peculiar, old-style costumes are worn by Swiss mountaineers and inhabitants of the Black Forest mountains of Germany. Such places, like deserts, are among the last to be reached by new customs.

Mountain people are brave and hardy, for their life is one of hardship, and there are many dangers. The open-air life, with plenty of space and freedom, develops a love of freedom. They desire to be left alone, and resist attempts at conquest. It is for such reasons that little Switzerland, notwithstanding many efforts to seize it, has been able to remain independent.

Summary. — Mountains are barriers, protecting people from invasion; they are places of retreat before invaders; in them ancient languages and customs linger; they develop a brave, hardy, freedom-loving race.

259. Influence of Coast Line. — Closed seas and irregular coasts, having quiet water, encourage fishing and commerce. It is along such coasts, therefore, that navigation has developed. The Mediterranean and the irregular Grecian coast illustrate this; also the irregular Scandinavian coast, with its many narrow, quiet fiords (p. 209). Here developed the brave, hardy Norsemen, who ravaged the coast of western Europe, and even visited America, before the time of Columbus.

The British nation has become "mistress of the seas" because of the favorable position and coast. No part of the British Isles is far from the sea; there are innumerable bays and harbors; and many of the inhabitants have engaged in fishing. The separation from the mainland has been of the highest importance, for it has prevented invasion by land and has made commerce by water necessary. Furthermore, these small islands are unable to supply food enough for the large manufacturing population that has developed there. To bring food, and to carry away manufactured products, calls for ships; and to protect these and the coast from attack, demands a navy.

Colonies were established as a source of food and raw products for manufacture; they also served as a market for manufactured articles, and commerce with them became great and mutually beneficial. As a result of these facts, and the presence of coal and iron for manufacturing, the British nation has become the greatest sea power in the world, and has come into possession of the largest amount of territory that any nation has ever controlled.

Summary. — Protected seas, like the Mediterranean, and irregular coasts, like those of Greece and Scandinavia, encourage the develop-

on to sleet

ment of navigation. The British nation has become the greatest sea power, and the possessor of the largest amount of territory, of all nations, as a result of its island condition, its irregular coast, and the fact that it needed to import food and raw products for manufacture, and, being on an island, was obliged to bring them by water.

260. United States. - The situation of United States in the temperate zone, with several different climates, is favor-

Most densely settled portion. More than 90 people living on every square mile.

Fig. 547. - Distribution of white men in United States, 1790.

able to advance. There are great natural resources of nearly every kind, and the wisdom and love of freedom of our ancestors led them to establish a government that has encouraged the full use of these resources. The coast line is favorable to navigation, and the Atlantic Ocean, which separates us from other highly civilized nations, is so narrow that communication and commerce with them are easily possible. Yet it is wide enough to protect us from attack and invasion.

Early settlements were

naturally first made along the coast, because this was the first place reached. Although the natives were finally pushed aside, for a while aided by the mountain and forest barrier, they held back the westward advance of the pioneers. Thus the settlers continued to live along the coast; and in 1790, when the West was a vast wilderness crossed only by Indian trails, it was possible to travel by stage from Portland, Me., to Virginia, stopping each night in a good-sized village.

The Spanish and French settlements were far more scattered, for the Spanish had two coasts along which to travel, and the French the great interior waterways. Therefore, when the French and Indian war came, the English, being closer together and able to unite, had a great advantage. The success of the Revolution was also in large part due to the fact that the Colonists were centered along the coast.

The mountains were finally crossed along the water gaps, through Cumberland Gap to Tennessee and Kentucky, and along the Mohawk Gap to the Great Lakes. When the way to the interior was well opened, migration was rapid, because the soil was good, the climate favorable, the surface clear of forest, and the land free to all. Soon the central plains developed into a great agricultural, mining, and manufacturing section. The water gaps and waterways are still the leading routes to this interior.

West of the prairies was another great barrier, in the form of arid plains and plateaus, extensive deserts, and lofty mountain ranges. How great a barrier this was is seen from the fact that, when gold was discovered in California, large numbers preferred to travel entirely around South America. rather than undergo the danger and hardship of a wagon trip across the continent. Now several lines of railway cross the mountains; there are mining cities in the mountain valleys; and irrigated farms dot even the desert. Man has so overcome these barriers that the continent is crossed in a few days with all the comforts of modern railway travel.

Our country has developed wonderfully, and in a century has changed from a weak nation, struggling for existence, to one of the great world powers. This growth is not the result of a mere accident; nor is it due to a single cause. The invigorating climate encourages work, and in fact requires it; and intelligent labor secures great reward. In a new country there are wide opportunities for those who work hard, and this fact has helped make the American people

energetic. Mineral, farm, and forest products may be obtained in great variety; and physiographic conditions, as well as the wise government under which we live, are favorable to their development. It is no wonder that the United States has advanced so rapidly; and the present century should see still more wonderful advancement.

Summary. — The climate, resources, government, and coast line of the United States are favorable to progress. The early settlements along the coast, and the interference with westward spread, caused by the Indians and mountain barrier, helped make the English successful in war with France, and the colonists in the Revolution against the mother country. The mountain barrier was first crossed along the water gaps, and the fertile, open prairie was then quickly developed; but the great western barrier of desert and mountain held back further progress until after the discovery of gold in California. Our rapid development has depended on the energetic people, wise government, and vast resources; and since the foundation is solid, our prosperity promises to continue.

## TOPICAL OUTLINE AND REVIEW QUESTIONS.

TOPICAL OUTLINE. — 243. Early Man. — Origin by evolution; resemblance to animals; difference from animals; early stages of savagery.

244. Dependence of Man on Nature. — Dependence of all mankind; further dependence of civilized man; use of nature by civilized man.

245. Food Supply. — Basis of invention; primitive implements; present use; parts of plants eaten; instances; reasons for cultivation; importance of domestication; farming at present; dependence on farmer.

246. Clothing. — Need of clothing; materials used; use of skins; vegetable products; animal products; reason for importance.

247. Shelter. — (a) Primitive shelters: Eskimos; Indians; nomads; sod houses; tropical shelter; caves. (b) Building materials: first use; wood; stone; mortar; sun-dried brick; baked brick. (c) Fire: need of it; first importance; later uses; result of these uses.

248. Selection of Homes. — Two objects in selecting sites; condition of

civilized man; instances of sites selected for protection.

249. Location and Growth of Cities. — (a) Primitive man: reasons for communities; savages; advantages of villages. (b) Government: village chief; extension of power; origin of modern government.

(c) European towns: castles; gathering of people about them; present condition. (d) Modern cities: capitals; industries in large capitals; cities at junction of trade routes; on rivers; lake ports; seaports at mouths of rivers; effect of water power; of mining.

250. Development of Commerce. — (a) Exchange: desires of primitive people; methods of gratifying them; early commerce. (b) Greeks; favorable location; colonies; extension beyond Mediterranean. (c) Discovery of new lands: reason for exploration; results. (d) Effects of commerce: exchange; need of money; use of gold; spread of civilization; early writing; alphabet; electricity.

251. Influence of Man on Nature. — Life; forest removal, — effect on rivers, on soil; changes in stream courses; irrigation; lakes; work along seacoast; borings; mines; quarrying; tunnels; roads; plowing; independence of man; use of surroundings.

252. The Spread of Man. — Resemblance to animals; superior intelligence; use of boats; of clothing and shelter; slow spread; rapid spread; conquest; discovery of new lands; aid of commerce.

253. Races of Mankind. — Origin of differences; the races; boundaries; spread of the red race; the black race; the yellow race; the white race.

254. Man in the Arctic. — Plant food; animal food in sea; reindeer; Eskimos, — food, dependence on animals, wood, effect of surroundings.

255. Man in the Tropical Zone. — Food; ease of meeting needs; effect of climate on civilization; instances of uncivilized people; their condition; possibility of advance.

256. Man in the Temperate Zone. — (a) Reasons for civilization: abundant food; need of storing food for winter; need of clothing and shelter; varied climate and land form. (b) Nature of advance: cultivation of crops; domestication of animals; use of implements; of metals; art of building; use of fire.

257. Man in the Desert.—(a) The desert itself: comparison with Arctic; domestic animals; nomadic characteristics; effect of desert barrier. (b) On oases: agriculture; cradles of civilization; reasons for development of civilization. (c) Euphrates and Nile: early civilization; its spread; present condition. (d) American Indians.

258. Influence of Mountains.—(a) Barriers; races on two sides of Himalayas; protection to India; Alps. (b) Retreats: reasons; Welsh and Scotch; Basques; Switzerland; ancient customs. (c) Mountain people: character; love of freedom; Switzerland.

259. Influence of Coast Line.—(a) Closed seas: Mediterranean.
(b) Irregular coasts: Greece; Scandinavia. (c) British nation: nearness to sea; irregular coast; fishing; island condition; food supply; colonies; commerce; coal and iron; great importance.

260. United States.—(a) Favorable conditions: climate; resources; government; coast line; ocean. (b) Mountain barrier: first settlements; natives; barrier to westward movement; condition in 1790; Spanish; French; French and Indian war; Revolution. (c) Interior: crossing barrier; development of interior; present routes to interior. (d) Western barrier: nature; difficulty of crossing; present condition. (e) Growth of country: climate; energetic people; resources; government; future.

REVIEW QUESTIONS. — 243. What is believed to be the origin of man? What was his early state?

244. Upon what conditions are all men dependent? In what other ways are civilized men dependent on nature?

245. What simple implements were early used? Why? Why were plants cultivated? What parts are used? Give examples. Of what importance is domestication? Of what present importance is agriculture?

246. What materials are used for clothing? Why are the production and manufacture of materials for clothing so important?

247. What primitive means are employed for securing shelter? How has the use of wood developed? Stone? Clay? Of what use is fire?

248. What considerations have led to the selection of sites for homes? What influences civilized man? Give illustrations of protected sites.

249. Why do men gather in centers? Illustrate. What influence has this on government? What was the condition in Europe? What great European cities are capitals? What else accounts for their growth? What situations especially favor the growth of cities? Give instances. In what several connections is London mentioned?

250. What is the nature of commerce among primitive peoples? How was early commerce carried on? What was the nature of ancient commerce between Asia and Europe? What influence had the Mediterranean? What effect had the Mohammedans? On what does the use of money depend? Why is gold used? State other effects of commerce.

251. State some of the ways in which man influences nature: (a) life; (b) rivers; (c) seacoast; (d) the land.

252. Compare and contrast man's spread with that of animals. In what ways has his spread been accomplished? Give illustrations.

253. What is the cause of differences among men? Name the four races. Where is each mainly found (Fig. 544)? Why are the boundaries not sharp? What about the spread of the different races?

254. What are the sources of food for the inhabitants of the Arctie? How do the Eskimos live? Why may they not advance?

255. What conditions in the tropical zone are unfavorable to civilization? What is the condition of the inhabitants? Can they be civilized? 256. What three conditions have favored advance to civilization in

the temperate zone? How have they aided? In what ways has man learned to call nature to his service?

257. What is the condition of man in the desert? Why are primitive customs preserved? Why were oases favorable to the development of early civilization? Of what importance was this in the Old World? What was the condition in the New World?

258. What are the effects of mountains as barriers? Why are they places of retreat? Give illustrations of the influence of this on language. On customs. What effect have mountains on character?

259. Give instances of the influence of closed seas and irregular coasts. What facts account for the importance of the British nation?

260. What conditions are favorable to the advance of the United States? What were the nature and effects of the barrier west of the coast? Where was this barrier crossed? What was the result? What barrier was found farther west? How has it been overcome? Upon what has our progress as a nation depended?

Reference Books.—Shaler, Nature and Man in America, Scribner's, Sons, New York, 1891, \$1.50; Peschel, Races of Man, Appleton & Co., New York, 1876, \$2.25; Lubbock, Origin of Civilization, Appleton & Co., New York, 1895, \$5.00; Keane, Ethnology, 2 vols., Macmillan Co., New York, 1896, \$2.60; Man, Past and Present, Macmillan Co., New York, 1899, \$3.00; Brinton, Races and Peoples, McKay, Philadelphia, 1890, \$1.50; Ripley, Races of Europe, 2 vols., Appleton & Co., New York, 1899, \$6.00; Ratzel, The History of Mankind, 3 vols., Macmillan Co., New York, 1896-99, \$4.00 a volume; Gibbins, History of Commerce in Europe, Macmillan Co., New York, 1896-99, \$4.00 a volume; Gibbins, History of Commerce in Europe, Macmillan Co., New York, 1891, \$0.90; Guyot, The Earth and Man, Scribner's Sons, New York, 1893, \$1.75; Marsh, The Earth as Modified by Human Action, Scribner's Sons, New York, 1885, \$3.50; Mackinder, Britain and the British Seas, Appleton & Co., New York, 1902, \$2.00.