THE NEW DIVISIONS OF EUROPE

EUROPE OF TO-DAY

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"Let travellers cross seas and deserts merely to measure the height of a mountain, to describe the cataract of a river, . . . but what advantage can accrue to a philosopher from such accounts, who is desirous of understanding the human heart, who seeks to know the *men* of every country, who desires to discover those differences which result from climate, religion, education, prejudice, and partiality? . . . .

"Confucius observes that it is the duty of the learned to unite society more closely, and to persuade men to become citizens of the world."—OLIVER GOLDSMITH: *The Citizen of the World* (1760).

PREFACE

THIS book is written with a twofold purpose. It endeavours to give an account of the "New Europe" which will enable the general reader to understand the changes which have taken place as a result of the war, and the problems which confront Europe at the present time.

At the same time it is one of a series of four books which together will form a course in geography suitable for secondary and day continuation schools. This course has been planned in the belief that the chief aims of teaching geography are to show the relations between man and his environment, and to train young people to be intelligent citizens.

The writer is convinced that an intelligent citizen must be so educated as to have a knowledge of the various peoples and their problems, together with an attitude of mind characterised both by goodwill to the peoples and a desire to find a just solution to the problems with which his state may be concerned. Hence the guiding principle in the writing of these books has been to help the readers to a *sympathetic understanding* of the lives of the peoples of our own and other countries.

In this book it has been convenient to deal with the environment—that is, the physical geography—of each of the larger regions of Europe in turn, and then to describe the social, economic, and political life of each of the

states included in those larger regions; the reader should, however, recall and revise the physical as he studies the human conditions of each state.

So many aspects of the countries and of the lives of the peoples have to be considered that the book cannot be in any sense exhaustive; certain aspects are selected and dealt with in connection with each region, and details necessarily omitted can be obtained from the standard works of reference, among which may be mentioned the annual issues of the "Statesman's Year Book."

The subject-matter introduced marks the greatest departure from the traditional "geography" in connection with those regions of Central and Eastern Europe where the war has caused the greatest changes in political and economic conditions.

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The maps and diagrams are not intended to supersede, but only to supplement, an atlas; **it is assumed that an atlas will be constantly used,** and this should show, in addition to the political divisions, etc., the elevation of the land by shades of colour, and also climatic conditions and natural vegetation.

EUROPE OF TO-DAY

FROM THE OLD TO THE NEW

The Europe of to-day is very different from the Europe of a few years ago : Empires of the past have disappeared and Republics have taken their place ; peoples who were ruled by other peoples now govern themselves ; the boundaries of countries have been greatly altered ; states such as Jugo-Slavia and Czecho-Slovakia appear on the maps for the first time ; for the first time, too, a League of Nations has been formed to prevent war, to help nations to work together in various ways, and to take under its protection or to administer a number of regions which have been removed from the power of certain great states. It is, therefore, well to describe briefly how and why these changes came about, for then the importance and meaning of the new conditions can be realized.

The Outbreak of the Great War.—On June 28th, 1914, the Archduke Francis, the heir to the throne of Austria-Hungary, was riding through the streets of Sarajevo, the chief town of Bosnia in the Balkan Peninsula,* when a bomb was thrown at him. The bomb

* Before the Great War, Austria and Hungary were joined under one ruler and included several large areas inhabited by other peoples ; Bosnia is one of these areas in the extreme south of the country. The map in Fig. 4 shows the extent of Austria-Hungary and the countries which bordered it at this time.

exploded and the Archduke and his wife were killed. This murder was like a match thrown into a powder magazine, for it was the beginning of that greatest of all the explosions of history, the war that caused the upheaval of nearly all the countries of the world and sacrificed the lives of over eight million men.

The murder was due to the hatred which the people of Bosnia and their kinsmen felt for their Austrian rulers. The Bosnians belong to the group of people called Jugo-Slavs, to which the Serbians also belong, and Bosnia had been forcibly annexed by Austria-Hungary years before; moreover, many Serbians feared that Austria wished to get power over Serbia also. Austria and Hungary ruled other peoples akin to the Serbs, and feared that Serbia would encourage their kinsmen to rebel. Thus there was mutual fear, and when the Archduke was murdered, Austria accused Serbia of helping the murderers. There was no evidence of this, but Austria demanded that Serbia should make amends and threatened war if Serbia did not agree to its conditions, two of which would have given Austria power to interfere in the government of Serbia itself. Serbia accepted most of the conditions, for it was a very weak country as compared with Austria-Hungary, but proposed that the two most objectionable points should be referred to arbitration; Austria refused this and declared war.

Meanwhile the other powers of Europe had been considering the matter, and Russia decided to stand by Serbia. The nations seemed all to fear their neighbours in one way or another, and Russia feared lest Austria-Hungary, which adjoined it on the west, should become more powerful by extending its rule over Serbia and so including within its realm some millions of people from whom taxes might be raised and soldiers conscribed. Moreover, the Russians are Slavs, and so belong to the

same race and have a similar language to that of the Serbians. Russia therefore prepared for war. As Russia stood behind Serbia, so Germany stood behind Austria, for Germany had promised Austria its support, and now declared war on Russia.

Moreover, as Russia feared Austria, so France feared its neighbour Germany, and perhaps with more reason, for forty years before Germany had defeated France and taken Alsace and Lorraine from her. Consequently France and Russia had an agreement to assist each other, and thus France was drawn into the conflict and Germany at once prepared to attack her.

This attack could only take place in two districts, for most of the frontier between Germany and France is highland across which large armies cannot easily pass. To the south of the barrier is a narrow gap between France and the Swiss mountains, and this gave little scope for the movement of such enormous armies as Germany had prepared and wished to thrust rapidly into France. To the north of the barrier is another passage, but it leads through Belgium. Belgium is a very small state, and the greater powers, including Britain and Prussia,* had guaranteed by treaty that it should be a neutral state. Nevertheless, Germany began to send troops across Belgian territory, and so violated its neutrality, and the Belgian army tried to resist the Germans.

This definitely decided Britain to enter the war, and although Britain had no formal and public treaty with France to assist her, there had been informal understandings between members of the British and French governments. The entry of Britain brought about the entry of the British Dominions beyond the seas, among

* Prussia was the most important of the German states which, in 1871, combined to form the German Empire.

whom Canada, Australia, New Zealand, and the Union of South Africa are the most important. Also Japan was bound by treaty to Britain, and so came into the war. Thus almost at a stroke the greater part of Europe, with other countries to the most distant regions of the world, was plunged into war.

The War and the Nations.—The navies of Britain and its allies were much more powerful than those of Germany and Austria-Hungary. Few sea battles were fought, but the warships and mercantile ships of the Central Powers were driven from the seas, and this was a fact of the greatest importance, for it enabled the Allies to blockade their enemies. Gradually the blockade was made more strict until no goods of any kind could get into Germany and Austria-Hungary. Food supplies, cotton and other clothing materials, oils and fats, minerals of various kinds, which would have been used both for warfare and the needs of the civilian population, ceased to be imported. This hindered military operations, checked manufactures of all kinds, and slowly reduced almost the whole population to a state of want and poverty. Thus war was no longer confined to the combatants, but women and children suffered terribly even before the aircraft, attacking munition works, brought almost indiscriminate damage and death to the towns where works of this kind were situated.

Meanwhile the number of countries engaged in the war increased. Turkey entered within a few months, followed in 1915 by Italy and Bulgaria. Turkey and Bulgaria supported the Central Powers, so that Serbia was invaded on each side, and when it was overrun there was a complete block of territory under the dominance of Germany extending from the North Sea and Baltic Sea, through Central Europe and the Balkan Peninsula

to South-western Asia, completely cutting off Russia from her Western Allies.

Italy had previously been in alliance with Germany and Austria-Hungary, but it was only bound to support these countries if they were attacked by others, and Italy decided that they had not been attacked and so did not join them. On the contrary, it made a secret treaty with Britain, France, and Russia, by which it was to receive those parts of Austria seized from Italy long before and still inhabited by Italians, and also other territories belonging to Austria and Turkey but not Italian in their population. In 1916 Germany declared war on Portugal, and Rumania declared war on Austria-Hungary, for in Transylvania, under the Hungarians, a large proportion of the people were Rumanians, and the war offered an opportunity for these people and their land to be rejoined to their mother country.

In Britain, it became evident that the war would be a long one and the whole resources of the country would have to be directed to warlike ends. Manufactures of all kinds were reduced, and the works and workers turned to making munitions, clothing, stores and food required by soldiers. Conscription Acts were passed, drafting into the army all men able to fight unless they were necessary for the service of the country in other ways. Thus the war had made Britain become a military as well as a naval power, so that she was forced to follow the practice of conscription which the other European powers followed not only during war, but always. Even in time of peace, their young men had had to leave their education or work and serve in the army for a certain number of years. Another consequence of the war was that women took the place of men in many ways; and their willingness and ability to take a great share in national work led later to Parliament giving them the

right to vote for, and to become, members of Parliament. Food and other necessaries of life became scarce and therefore dear. The scarcity was partly due to the fact that labour was diverted to warfare and partly to the difficulty in getting supplies from abroad.

The blockade of the Central Powers was carried on by warships, but the Germans attempted to blockade the Allies by submarine warfare, for only submarines could leave the German harbours. Against the laws of warfare, the submarines attacked without warning, and killed the crews and passengers of merchant ships; further, in 1917, they carried on this "unrestricted submarine campaign" against the ships of neutrals, because these ships might be carrying goods to or from the belligerent countries. Thus American, Dutch, Norwegian, Swedish, Danish, and other ships were attacked, and because of this, the United States declared war on Germany. The submarine warfare, therefore, brought in a very powerful state against the Central Powers.

One most important effect of the blockades was upon the neutral nations. In the case of Scandinavia, the interference of commerce prevented the people obtaining their usual imports and exporting their own products. For instance, in ordinary times, Norway could not grow sufficient food for itself and had to import a large proportion of corn or flour for its bread; it paid for this by exports, among which fish was one of the most important. The import of corn was checked by the war and the work of the fishermen was greatly hindered. Sweden could still trade without any great interruption across the Baltic Sea with Germany, from which it was accustomed to obtain coal and manufactured goods, but Germany had none of these to spare.

Again, Holland depended to a considerable extent

upon foreign trade which passed up and down the Rhine, *i.e.* to and from Germany, but this trade was stopped. Switzerland, too, although an inland country, was seriously injured. It is a manufacturing country, but had to import its coal from Germany; this it could not obtain, nor could it get either its raw materials or its food from across the ocean. Hence these neutral countries were very considerably affected; work, food, and clothing were lacking, all the population suffered great discomfort and the poorer people were reduced to a serious plight; indeed, apart from the loss of life and injury in the actual fighting, some neutrals suffered more than some of the belligerent nations.

It became quite apparent, therefore, that the effects of war are nowadays not confined to the fighting countries; the nations are all so bound up with one another that what any one does reacts upon the others. The world is so linked up by work and trade, by races of men living in more than one country, by the alliances between nations, that it is really one great community. Hence, no longer can two nations who fight say it is no concern of any other nation: it is the concern of all the others, and this is the reason why it becomes the business of all the world, or of a League of Nations, to prevent war and to make arrangements for the countries to work in friendly relationship. So the need of a League of Nations forced itself upon the world, and Woodrow Wilson, the President of the United States, became a powerful champion of the idea.

In Russia another great development took place. The government of the country was not democratic, carried on by the people as it is in Britain or in the United States, but autocratic, in the hands of the Tsar and the few people whose advice and help he would accept. The mass of the people, moreover, had very little education

and knew little of what was going on elsewhere, or why they were at war. But they were forced into the army, and the government was corrupt, and unable or unwilling to supply the troops with arms, clothing, or food. The people at home, too, suffered terribly, and so a revolution broke out, and in 1917 the Tsar was driven from power and Russia was proclaimed a Republic.

But unfortunately the old government had given the people no opportunity of learning how to govern themselves. They had no trained and trusted leaders; also in such a vast country as Russia a great deal of organisation and machinery of government is needed to get the will of the people expressed and to get their intentions carried out. They were like a number of children suddenly entrusted with the management of a great business, and naturally failed. Moreover, Russia was like Austria-Hungary in including different races and peoples within its borders, and a number of these, *e.g.* the Poles and the Finns, took the opportunity of breaking away. Some extreme Socialists, called the Bolsheviks, seized the power in the central part of Russia, and made peace with Germany.

The advantage which the Central Powers got from this peace was only temporary, for gradually the strength of the Allies showed itself. Modern warfare demands all the resources of a nation; those of the population who cannot fight may make the huge number of guns, munitions, railway engines, motor-cars and other appliances which armies now require, and these things depend largely upon the supplies of coal and iron which the nations can obtain and work. Now, although the Central Powers had the greater and best-equipped armies at the beginning, the Allies (especially after the United States joined them) had the greater number of coal mines and iron quarries, they had a larger number of people, and

they could draw on nearly all the world for their stocks of cotton, wool, leather, metals, timber and other materials. At last, in 1918, the resources of Germany and its allies were exhausted, while their armies were worn down by losses and defeated, and one after another they gave way. In Germany, Austria-Hungary, and Bulgaria, the peoples rose against their rulers, the governments fell, the Kaiser of Germany, the Emperor of Austria, and the King of Bulgaria abdicated. The great state of Austria-Hungary broke up as that of Russia had done, and its subject peoples claimed independent governments of their own.

The right of self-determination of peoples, *i.e.* their right to form their own governments or to choose to what state they would belong, had been proclaimed as one of the objects of the war, and over a large part of Europe there was now an opportunity for it to be carried into effect. With the end of the war came the beginning of the peace settlements and the reconstruction of Europe—a work of many years.

Problems of the Peace.—New nations had to be formed, and in this remaking of the map of Europe a great conflict of ideas showed itself. The old Europe was largely based upon force and fear ; statesmen believed that they could make their own country safe only by making it strong as a fighting power, and to this end everything else had to give way. They would seize more territory and include more people in their realm if opportunity offered.

The hope of the new Europe is that such methods should give place to the adjustment of territories according to the will of the peoples concerned ; regions should not be annexed, or, as has happened more than once, exchanged for others by bargainings between powerful

neighbours. The boundaries of states should be fixed according to ideas of right and not might, and should be drawn not where soldiers would like to have their armies ready for attack or defence, but where there is a difference between peoples—where the population desires to belong to another state. And yet, even now, many countries would be very unwilling to draw their boundaries so as to give their neighbours a strong position if war broke out, and the soldiers had a voice in settling the new frontiers.

Moreover, nations must be able to trade with one another, and so they may often wish to have a river, a railway, or a port included in their country so that communication may be easy or that they may not be cut off from the sea by some neighbour who might hamper or stop their commerce. Again, the possession of fertile land, or of coal or iron deposits, is a great gain to a state, and offers a temptation difficult to withstand. These economic or business desires have conflicted, and still conflict, with the idea of self-determination. We shall consider, in the latter part of this book, some of the cases in which the nations of Central Europe disputed about their territories, claiming land here and there, and feeling wronged and bitter against their neighbours if their claims were not granted.

When, however, new nations have been formed and their boundaries fixed, the problem of the establishment of a good government within those territories may still remain. This depends mainly upon two things: the willingness of the people to work together, and their education, particularly in political matters. Where the people in a state are divided among themselves, each set trying to gain its own ends, endless difficulties arise, and the good of all the population is sacrificed.

Not only goodwill, however, but knowledge also is

required. Where people have never been allowed to take any share in the government, as has been the case over the greater part of Eastern Europe, they are not able to arrange matters. They may be able to read and write, but they have not books and newspapers which put various sides of questions before them ; they have had no system of voting, and the people they elect may not be the best they might choose, and in any case have not been used to making laws and arranging for them to be carried out. Not months but many years are needed for a people to be politically educated. In our own country the government has become as democratic as it is, because of the work of many generations, marred by fruitless attempts and bitter conflicts.

Such difficulties must accompany any changes, but after the past war other problems complicated matters. Large areas were devastated by warfare, and almost all countries brought to the verge of ruin. Towns had to be rebuilt, countrysides cleared and made fit for cultivation, railways to be reconstructed, and mines to be re-opened. Industries had to be formed again, new workmen to be trained, credit to be re-established between merchants, and ships to be built to bring together the materials for work. This economic reconstruction needs years, and until it is done neither comfort nor prosperity should be expected. Here, again, one nation cannot live to itself ; its re-establishment must wait upon that of others from whom it requires goods and to whom it wishes to sell its own products. Co-operation is essential.

In the settlement of peace terms those nations which had suffered from the attacks of others, as Belgium from Germany, and Serbia from Austria, claimed that for the destruction wrought they should receive compensation, and so clauses to compel payment of various goods and of money were inserted into the treaties. Such reparation

may be just, but it increased the difficulties of the beaten states, as it had to be obtained from countries already impoverished and with no hope of relief for many years. Hardships were inevitable, all countries were bound to suffer, and though attempts were made to put the burden upon the guilty, it could not be confined to them.

All these considerations, together with the fear of further and still more horrible wars, compelled the formation of the League of Nations.

The League of Nations.—In the treaties of peace made at the close of the war were included agreements about the League of Nations. These agreements formed a " Covenant " signed by most of the nations of the world. The Covenant bound the nations to reduce their fighting forces as much as possible, to adopt certain means of settling disputes and preventing war, to publish instead of keeping secret the treaties they make with one another, to arrange for the just government of backward peoples, to secure humane conditions of labour in all countries, to facilitate means of transit and communications for all countries, to supervise trade in dangerous drugs and in arms, to co-operate in improving health and preventing disease throughout the world.

The machinery by which all these things are to be done must be explained. The League of Nations works through two bodies : (1) the Assembly, consisting of representatives of all the states belonging to the League ; (2) the Council of nine members consisting of representatives of the United States,* the British Empire, France, Italy, Japan, and four other states chosen by the Assembly. The League has a permanent staff and its seat is at Geneva, in Switzerland.

* The United States did not agree with some details of the Covenant, and so did not send representatives to the League when it was first formed.

The members of the League agree to reduce their national armaments as far as possible, and it is the business of the Council to draw up plans for this reduction, but the states are not bound to accept these plans.

They undertake to protect each other from aggression, and declare that any war or threat of war is a matter of concern to the whole League. If any dispute arises they agree to refer the matter either to arbitration or to inquiry by the Council, and they agree in no case to resort to war until three months after the award by the arbitrators or the report of the Council. If the disputing states accept, and the matter is one which can be definitely and simply settled, the method of arbitration may be employed ; the two states are to agree upon the arbitrators and to bind themselves to carry out their award. To facilitate the settlement of such questions, the League established a " Permanent Court of International Justice," somewhat like a Court of Law in our own country ; this Court would be a suitable body to act as arbitrators.

Disputes which cannot be so simply settled one way or the other, or which the disputing parties do not refer to arbitration, are to be submitted to the Council. When the Council cannot get the parties to settle it between themselves, they will hold an inquiry (which may be made public) and issue their recommendations as to a settlement. If the Council is unanimous in its recommendations, and one party carries them out, the other party agrees not to go to war on that account. But if the Council is not unanimous in its decision, it shall publish a report on the case and may make recommendations, but the parties are not bound to carry them out. Moreover, the Council cannot deal with any matters which are declared to be the concern of " domestic jurisdiction," *i.e.* the internal affairs of one member alone.

Thus it appears that the League does not claim to

prevent war absolutely, but it is hoped that the delay which is agreed upon will give time for passions to cool; and the publicity which is assured will enable the people of the countries concerned to know what are the rights and wrongs of the matter in dispute and not to be forced blindly into war by their governments. It is very possible that if the dispute between Austria and Serbia had been dealt with under these agreements, the Great War would never have taken place. Moreover, should war break out in disregard of the Covenant, the members of the League bind themselves to have no trade or communication of any kind with the offending party, and that would in these days cripple almost any state; finally, the Council has to recommend to the other states what part they shall play in bringing armed force to bear upon the offender, though there is only a moral and not a legal obligation upon the states to take part in such active measures.

To prevent disputes arising at all, the states agree to publish all treaties they make with one another, so that all agreements shall be "above board," and secret negotiations which would not bear the examination of the world will disappear. Trouble will also be prevented by the League supervising arrangements for the trade communications between countries. If nations are given facilities for travelling, and for sending their goods through their neighbours' countries without hindrances or high charges, much friction may be avoided. This is of special importance to those states of Central Europe, such as Switzerland, Austria, Hungary, and Czecho-Slovakia, which have no outlet to the sea. The railways and waterways through the neighbouring states will be brought under international control in order to ensure fair treatment.

Those territories and colonies which have been under

other states and released as a result of the war, and whose peoples are not yet sufficiently advanced to govern themselves or look after their own interests, are taken under the protection of the League, and are entrusted to the care of some other state to whom a mandate is given for this purpose. As most of these regions are outside Europe, a fuller account of these mandates is given in the books of this series on " World Geography and World Problems," and " The British Empire and its Problems."

An International Labour Office was organised to secure fair and humane conditions of labour for men, women, and children in all countries ; this should prove one of the most important duties of the League, for it directly affects the lives of millions of people ; similar organisations are set up to limit or forbid the sale of opium and dangerous drugs, of arms, weapons and ammunition, and arrangements are made to help Red Cross Societies and to enable the nations to co-operate in dealing with diseases which, if unchecked, spread from country to country. In these ways, and in others, the League of Nations may prove of the greatest value to all the peoples of the world.*

THE PEOPLES OF EUROPE

To understand the nations of Europe one must know both about the peoples who form these nations and also about the kind of country they inhabit. The peoples of two regions may be quite different from one another in

* For further information regarding the work of the League of Nations, apply to the Secretary, League of Nations Union, 15, Grosvenor Crescent, London, S.W.

their appearance ; they may talk different languages and have different religions ; they may be under different governments. Some may be content with the government under which they live and in which they share, while others may be discontented because they are ruled by a people who belong to a different nationality from themselves. It is in such discontent that revolts have arisen and wars have begun. This section will deal with the peoples of Europe, and the remaining ones with the lands, their resources, the work of the people, and the problems of the various states.

The Races of Europe.—The religion of a people may be changed, their language may be imposed upon them by conquerors, and their nationality is a matter of their willingness to live in a particular state. All these things can be altered at the will of people and may change as circumstances change, but the *race* of the people cannot be affected at will. It depends upon their origin, is transmitted from generation to generation, and shows itself in their bodily characteristics. People may migrate to another country, learn a different language and become members of another nation, but the race remains unchanged. Of course people of different races may inter-marry, and so the race may be modified, but the modifications which occur in the children depend on the physical and mental peculiarities of the parents, and are not affected by the wishes of parents or children.

The different races of mankind are therefore to be told from their physical characteristics : very little is yet known about the connection between mental characteristics and race.

An African negro is at once known from a European by his appearance ; his woolly hair would alone mark him off as belonging to a different race, for the European

races have wavy but not woolly hair. The Asiatic peoples (except those of India and the south-west) have straight lank hair like that of the Japanese, and in the east of Europe are peoples who originally belonged to Asiatic groups. A negro is also to be known by his almost black skin, while all Europeans are very much lighter, and the Asiatics have a yellowish skin. Certain features may also be noted: the negroes have thick lips, many (but not all) Asiatics have almond-shaped, oblique eyes, while Europeans have neither of these characteristics.

Another test of race is the average height, though there are, of course, taller and shorter individuals in all groups. In Europe, for example, the tallest peoples are those of the north, those of Central Europe are of medium height, while the Mediterranean peoples are distinctly shorter on the average. Other characteristics which are at once apparent are the relative darkness of the skin, and the colour of the hair and eyes. These commonly go together; for example, in Northern Europe the majority of the people have a light skin, fair hair, and blue or grey eyes. In Central Europe the people have rather darker tints, while in the Mediterranean region they have a dark skin, and still darker hair and eyes. Where people have migrated, and so races have mixed with one another, exceptions occur and blue eyes may go with darker hair, or the individuals of a district may differ from one another.

These characteristics of the average height and the colour of peoples may quite possibly change slowly after people have migrated. It is quite possible that the stronger sun of regions near the tropics may in the course of many generations alter not merely the skin colour, but even the colour of the hair and eyes of people, and the diet or mode of life may similarly affect the average height. Yet so slowly would these changes occur that

for hundreds of years the original characteristics would be noticeable and show the race of the people.

Another characteristic is less apparent than these, and is generally considered not to change even though people change their abode and their ways of life; this is the shape of their skull. In some people the length of the skull from front to back is considerably greater than the breadth from above one ear to above the other ear; such people are called long-skulled. In other people the length is not very much greater than the breadth; these are called round-skulled or broad-skulled people. Now if the height and colour of the European peoples were alone taken, the Northern ones would be marked out as different from those of the Mediterranean, but the Central European peoples might be thought of as being intermediate, and resulting from a mixing of the other two sets. But the skull-form shows that this is not so, for while both Northern and Mediterranean peoples are long-skulled, the Central peoples are broad-skulled. It is therefore concluded that they must be of a different race, and hence three European races are distinguished: (1) the Northern race, tall, light-skinned, fair-haired, blue-eyed, and long-skulled; (2) the Central or Alpine race, of medium height and darkness, and broad-skulled; (3) the Mediterranean race, short, dark-complexioned, with very dark eyes and hair, and long-skulled.

Long ago, before the times of which we have definite knowledge, these three races inhabited the regions which are suggested by the names, Northern, Alpine, and Mediterranean, but since then they have all migrated somewhat; and peoples of the Alpine race have pushed out from their mountain home, where the country could not support a rapidly increasing number of people, over the plains beneath and right across the east of Europe.

This eastern branch of the Alpine peoples is known as the Slav or Slavonic group.

In Western Europe the three races are fairly simply arranged: the Northern race occupies Scandinavia, Denmark, the plains south of the Baltic Sea as far east as the country around the Gulf of Riga, and most of the lowlands around the North Sea and the English Channel. The Alpine race occupies the uplands and highlands further south, in France, Switzerland, Italy, Germany, and Austria, and in parts has extended into the country on either side, as, for example, across the plains of France into the region of Brittany, and into the northern part of Italy. The Mediterranean race occupies the Iberian Peninsula, southern Italy and the adjoining islands. It should be noted that these racial divisions do not agree with the divisions of the people into the present nations, nor do they correspond with differences of language.

In Eastern Europe the races are more complicated, for in addition to the Slavonic branch of the Alpine race and traces of the Northern and Mediterranean peoples, we here find peoples of Asiatic origin who have forced their way into Europe. The Slavs seem to have originated in the Northern Carpathian region, but have become divided both by this intrusion of other races and also by their own slow movement outward from the highlands, so that there are now three main groups of Slavs, Western, Eastern, and Southern, respectively, separated partly by natural barriers of mountain or marsh, partly by settlements of other races.

The Western Slavs include the Poles, the Czechs (*pronounced* Checks), and the Slovaks. The Czechs and Slovaks adjoin one another and have formed the common state Czecho-Slovakia; they are almost completely separated from the Poles by mountains (compare the map of peoples in Fig. 8 with one showing the relief

of the land). The Poles of Poland are not so well marked off from other peoples, but between them and the greater part of the Eastern Slavs is the thinly-populated region of swamps in the basin of the river Pripet, a tributary of the Dnieper.

The Eastern Slavs are in three groups : to the north of the Pripet Marshes are the White Russians, to the south are the Little Russians or Ukrainians, while eastward are the Great Russians, who pushed forward to the Upper Volga region, and thence extended over the whole of this river basin and even further over the great plains. Some of the Ukrainians have migrated westward over the Carpathian Mountains into the basin of the Upper Tisza (or Theiss) where they are known as Ruthenians.

The Southern Slavs, or Jugo-Slavs (*pronounced* Yugo-Slavs), were driven southward many centuries ago from the Carpathians into the Balkan Peninsula and the mountainous region which connects it with the Eastern Alps. Between the northern end of the Adriatic Sea and the Drave tributary of the Danube are the Slovenes, and next to them on the south-east are the Croats and Serbs. These three peoples are those of the newly-formed kingdom of Jugo-Slavia, and the other peoples of the Balkan Peninsula are partly descended from the same stock.

The Asiatic peoples who have penetrated into Europe belong to two races, a northern one known as the Ugro-Finns and a southern one known as the Turki peoples. The Ugro-Finns spread out from the Ural mountain region, and from them are descended the Lapps of the extreme north of Europe, but their other descendants have so mixed with the Slavs, among whom they have lived for many hundreds of years, that they have lost many of the characteristics of their race, though they have handed down their own traditions, names and

languages, so that they are still regarded as separate peoples. Among these peoples are the Finns of Finland, and belonging to the same race are the Ests of Esthonia upon the opposite shores of the Gulf of Finland, though the Letts and Lithuanians further south form a branch of the Northern race (for the distribution of these peoples, see Fig. 9). From the Ugro-Finn race also came the ancestors of the Magyars or Hungarians who now occupy the plain of Hungary, while the Bulgarians are another mixed people resulting from an intrusion of the same stock upon Serbian peoples.

The Turki peoples came into Europe by two routes, one on the north and the other on the south side of the Caspian Sea. By the more northern route across the steppe lands penetrated wave after wave of horsemen, from whom the Tatars and Kirghiz of south Russia are descended. By the more southern route across the highlands and plateaus of Asia Minor came the Turks, who invaded the Balkan Region, where some of them still remain.

Languages, Religions, and Nations.—To some extent race distinctions agree with differences of language, but as the people of a particular race separate into different regions, their language develops into different dialects. At first these dialects may be very similar, but as time goes on they become more unlike, and the further the branches of the race are separated, the less the people have to do with one another, and so the more unlike their languages become. Thus, to take the case of the Slavs : their languages are all of the Slavonic group and still have many similarities, but those of the Czechs, the Serbs and the Great Russians have become quite distinct from one another. On the other hand, there are only differences of dialect between the neighbouring Czechs

and Slovaks ; similarly the Croats and Serbs of Jugo-Slavia have the same speech. The Bulgarians, however, have differences brought in by the intruding Asiatic tribes, so that Bulgarian is different from Serbian.

The languages of eastern Europe are thus fairly closely related to the race of the people, but in the western part of the continent the languages have spread beyond the racial boundaries. There are not three groups of languages spoken by the peoples of the three races, Northern, Alpine, and Mediterranean, but now only two important groups, namely, Teutonic and Romance. The Teutonic languages come from some early form of German and are spoken in England, Scandinavia, Denmark, Germany, Austria, Holland, and parts of Belgium and Switzerland ; the Romance languages come from Latin and ancient Greek, and are spoken in France, Spain, Portugal, Italy, parts of Switzerland and Belgium, and in Greece. Moreover, separated from these countries, Rumania has a language derived from Latin, for its people (who are of mixed race) have handed down among themselves the language, names and traditions of some colonists of the Roman Empire : the country owes its name to the fact that it originated in Roman colonies among the " barbarians " of that age.

It will be seen that, broadly speaking, the nations of Eastern Europe consist of groups of people of similar race and language, while in Western Europe the separate nations are composed to a greater degree of people of mixed race and even different languages ; nationality is, therefore, a matter simply of the feelings and wishes of the people. People of similar speech and descent may feel themselves one people, and indeed tend to do so ; but it is quite possible for them to separate into two nations : a case in point is that of Denmark and Norway. On the other hand, peoples of dissimilar speech and

different descent may unite and form a single nation as in the case of Belgium, where in the northern part of the country the people are of the Northern race and speak Flemish, a language of the Teutonic group, while in the southern part the people are of the Alpine race and speak French.

If, therefore, one wished to examine the rearrangement of countries after the Great War, and see whether it appeared to be a just one, it would not be sufficient merely to see if the new boundaries agreed with differences of race or of language ; the only real test would be the wishes of the inhabitants in the matter of government.

Religions, again, introduce another element. Of the peoples of Western Europe who profess a religious faith, the majority belong either to the Roman Catholic form of Christianity, or (in the northern part) to the Protestant religion which broke off from it a few centuries ago. The peoples of Eastern Europe belong mainly to one of the branches of the Greek Church, which separated from the Roman Church nearly 1000 years ago ; most, but by no means all, of the Slavonic people profess some form of the Greek faith. The Turks, together with some of the Turki peoples of eastern Russia, are Mohammedans. In some countries the religion of the people is closely bound up with their nationality, but in other countries the people may be of two, or even more, different religions and yet be quite united politically.

Finally, the Jews must be noted. They are descended from the people of Judea in Syria, and so from the Mediterranean race ; they have spread into almost all parts of Europe and have retained their Jewish religion and some form of their ancient language. In some countries they have mixed easily with the other inhabitants, but in others they have been treated harshly, and in turn bear no love to their neighbours. They often

become successful traders, and in some cases they are money-lenders, who have incurred the dislike of the people whose property they have acquired; hence there have been persecutions, especially in Russia. The greatest proportion of Jews is found in Poland, and in several parts of Eastern Europe there is a "Jewish problem."

THE COUNTRIES AND THEIR PROBLEMS

The preceding section described certain characteristics of the peoples of Europe, but other important matters are largely dependent upon the nature of the country in which they live.

The work which the people can do settles to a great degree the life they lead; in one region they may be peasants working on the land and living in small and widely scattered villages, leading a hard but healthy life, buying and selling little, and seldom coming into contact with other people. In another region the people may be miners, spending a third of their time underground; they may earn more money than the peasants, but their work renders them liable to accident or sudden death; they may live in closely packed houses in towns, belong to trade-unions, read newspapers, and take an interest in the government of the country. In still another region the people may be largely engaged in commerce, some as rich merchants, and others much poorer, working as clerks or porters; they live in a large city and are constantly in touch with many other people; in this

city there are also men who get their living by professions or from the money invested in businesses of all kinds; here newspapers are printed and the government of the country may be centred.

All these matters are largely settled by the nature of the regions and their resources. The first would be a region like Russia with a cold climate, and so the land is largely forest and little return is given to agriculture, while no other means of living is offered by nature. The second district is one where the ground contains coal not far from the surface, and so mining is possible. The third is an example of a great commercial city situated where the easy ways across the country (following the river valleys and avoiding the highlands) meet and give a good centre for trade. Thus it is necessary to know the relief or "build" of the lands, their climate and productions, and their opportunities for commerce; the following sections aim at showing how the physical conditions affect the lives of the peoples and the political problems of the states.

NORTHERN EUROPE

The most northerly part of the continent lies within the Arctic Circle. Here the winter is long, and in this season the daylight lasts but a very short time; indeed, at midwinter there is a period of some days when the sun does not appear at all. In the summer the days are correspondingly long and the sun can be seen at midnight, but it is never high in the sky and so gives little heat. The region is the northern end of a great mass of very hard rock which forms the Scandinavian Peninsula. This mass may be thought of as a huge block of

rock rising steeply from beneath the Atlantic Ocean, having a flat top, and dipping gently to the south-east towards the Baltic Sea. Thus there are three regions: the Norwegian coast, the high plateau, and the Swedish slope.*

The Norwegian coast is a part of the earth's crust in which very long ago innumerable cracks, called faults, occurred. These faults ran in various directions, and to a considerable extent they ran along the line of the present coast of Norway, letting down the ground on the west under the sea while that on the east was raised to a plateau. Along the lines of the faults, rivers cut deep and steep-sided valleys in the highland edge and, later, glaciers worked their way down from the snow-fields above. After this the whole region sank down somewhat, and as this sinking very gradually went on, the sea water covered the lower parts of the valleys turning them into magnificent fiords with high walls of rock, beautiful to see and wonderful to remember. Flat land is only found here and there at the sides and at the head of the fiord; on such patches the few people have their homes and grow hay as winter food for their cattle, which in the summer get scanty pasture on the gentler slopes. The windings of the Sogne Fiord are more than 100 miles long, so that its head is almost immediately beneath the Jötun Fjeld (Giants' Plateau), which is about 8,000 feet above its waters. Further north the Trondhjem Fiord is broader, and has some lowland around it.

Beyond the coast a great number of islands stand up out of the sea, the Lofoten Islands being the most im-

* All the regions and places mentioned should be looked out in the atlas; the study of maps should go on together with the study of the text. It is very useful to look carefully at the map of each district and at the same time to think of its characteristics as described in the book; this helps one to remember the facts, to associate them with particular localities, and to see how the situation affects the characteristics.

portant ; they represent portions of the old land too high to be covered when the lower ground around them was drowned. The inlets and islands give shelter for the few trading vessels and the more numerous fishing-boats. These northern seas, particularly the shallows near the coast, are rich in fish, so that people add the harvest of the sea to the meagre harvests of the land.

The great plateau behind the coast is covered with snow in winter and in the highest parts even in the summer ; vegetation is almost lacking, and there are very few inhabitants. It is not level, but cut into by valleys, and the streams which flow to the Baltic Sea have almost parallel courses across the plateau and down the eastern slope. At some parts of this slope the land falls more steeply in terrace-like form, and the rivers have corresponding rapids and falls ; elsewhere the streams broaden into lakes, and a series of these marks the eastern foot of the higher ground. The valleys give routes across the highlands : in the north the Tornea and Lulea lead from the head of the Gulf of Bothnia almost across the plateau towards the Ofoten Fiord, and in the south the River Glommen offers a path almost to the Trondhjem Fiord. For much of its length the Glommen flows to the south-east, but in its lower course it turns to the south-west, and so drains into the Skager Rak. At the northern extremity of the Skager Rak is Christiania Fiord, and in its neighbourhood is the greatest expanse of lowland and the most fertile ground of Norway.

The climate of the two sides of the highland is markedly different in winter, for the west is warmed by the south-west winds from the sea, and off the shore is the North Atlantic Drift of warmer water blown slowly by the winds from southern latitudes. Even in mid-winter the harbours are not frozen, and ships can round the North Cape to the open harbour of Murmansk in

Russian Lappland. On the Baltic side of the peninsula there are no warmed waters, and the plateau prevents the warm south-west wind reaching this region ; in winter, rivers and lakes are frozen and ports are blocked by ice. In summer the whole region, except upon the colder highlands, has a temperature only a little lower than that of England. The west has abundant rain throughout the year, especially in the south, but the sheltered east is relatively dry.

The lower lands of Sweden may be divided into two parts, northern and southern. In the north are lands bordering the Gulf of Bothnia ; neither climate nor soil is favourable, and the most noteworthy resources of this region are the minerals, for iron ore is found in the far north and several metals are mined in the south in the neighbourhood of the Dal River. Just south of the Dal River is Lake Mälar, one of a series which lies in a belt of very low land between the Skager Rak and the Baltic Sea. Lake Vener drains by the Göta River to the Kattegat, and a canal between lakes Vener and Vetter and the Baltic completes the waterway between the two seas. South of this belt of lakes are the most fertile parts of Sweden, but the central portion even of this region is of little value. The more hardy grains, such as rye and oats, grow better than wheat, but farmers depend to a greater extent on keeping cattle than on growing food for people. The products of the forests, such as timber and resin, are important both in Sweden and in Norway.

A map of the natural vegetation of Scandinavia shows how the ground would be covered if man had not interfered ; and over much of this region the actual conditions are very similar to those shown on the map, for only the most useful parts of the peninsula have been cleared of forest and adapted to man's use.

The highest land in the south and lower land in the

north are so cold that even trees will not grow. The very coldest parts are covered with perpetual snow; this forms into great snow-fields and is pressed together into masses of ice which are forced outwards and downwards by the weight of snow accumulating on the high plateaus. The ice flows very slowly downward in the form of glaciers, until at last it gets to a level where the warmth is sufficient to melt it. Such high regions are perpetually covered with snow and ice; in others the snow is melted at midsummer and reveals bare rock. In somewhat warmer parts the snow disappears for a longer period and low bushes can grow, while the rock is covered with mosses and lichens. This last type of country is also found along the coastal lowlands north-east of the peninsula, where it is called the tundra land. The Lapps of this northern region keep reindeer, which can get a living even on scanty pasture. The reindeer gives milk, its flesh is used for food, and its skin for clothes and other purposes; the life of the Lapps is, therefore, limited very largely by the characteristics of the reindeer.

The lower lands of the greater part of the peninsula are still almost completely covered by the great forests of coniferous trees, chiefly pines and firs, together with birches. In the south of the country, both in Norway and Sweden, the forests are composed of deciduous trees, which lose their leaves in the winter, oaks being most common and beeches appearing in the extreme south. In Scandinavia, as in other regions, it is deciduous forest which is mainly cleared; the colder climate which is suitable for the coniferous trees is not favourable to cultivation.

Finland, the region lying east of the Gulf of Bothnia, is very level, broadly speaking, but much of the ground is covered with an innumerable multitude of lakes of most

complicated shapes, and joined by a tangled network of waterways. The " bed rock " (under the water, marsh, or loose fragments which form such soil as there may be) is composed of hard rock. Very long ago, it was worn down by the action of the weather and streams till it was almost a plain, but more recently it suffered a great change during what is known as the " Ice Age." The effects of this upon the countries and the peoples are so great, that an account of what happened then helps us to understand what is happening to-day.

The Great Ice Sheet and its Borders.—Many thousands of years ago, long before the times of which we have any historical knowledge, the climate over all Northern Europe was far colder than it is now. The snow, which now collects on the higher parts of the Scandinavian plateau and sends glaciers a few miles down the valleys, then accumulated over the whole region, and pressing outward formed a great sheet of ice covering many thousands of square miles. This sheet was hundreds of feet thick, and was slowly forced southwards and eastwards by the pressure of more ice forming behind it. It scraped away the loose earth, carrying it to what we now call Russia, Poland, and Germany, and beneath the ice the rock was in parts left bare with deep scratches showing the direction of the movement, while in other parts material dragged from the north was accumulated beneath the ice.

During one period the edge of one part of the ice sheet melted just north of the Gulf of Finland (see in Fig. 1 the line marked III), and here boulders, stones, and gravel were left, while the water which came from the melted ice carried away the finer sand and clayey particles ; thus along the edge were built up mounds, in the shape of lines of low hills, formed of this morainic

material, as it is called. As the climate became warmer, the ice melted further and further north, and its edge was therefore found further back; we say the ice "retreated." In this retreat, which probably took thousands of years, more of the morainic material

FIG. 1.—Limits of the Ice Sheet.

was left scattered irregularly over the country behind the clearly marked line of the morainic mounds or hills. After this period the rivers of Finland once more flowed southward as they had done before the ice covered the country, but now they were blocked by these irregular masses, and much of the drainage of the country was held

back by the line of morainic hills behind the southern coast. The water collected into lakes which covered most of this low-lying land; it gradually rose higher, till it overflowed and formed streams which ran in rapids and cascades over the barriers in winding courses to the sea. Slowly these streams cut notches in the obstructing hills and mounds, and the lakes began to be drained, but there has not yet been time enough for this process to be carried very far, though marshes show where the work has been partly done.

Thus this "glaciation" of Finland has removed the fertile soil and left irregular deposits of all kinds, caused the lakes and marshes, and interrupted the smooth flow of the rivers by falls and rapids. Only along by the shores of the Gulf of Finland, south of the line of morainic hills, is the ground less encumbered and here most of the people live, mainly by farming, by fishing, or by cutting and selling the timber of the forests which are found in the drier parts of the land. This southern strip has deciduous trees, but in the rest of the land the forests are coniferous.

In the north of Finland the ground is higher, lakes are fewer, but the climate is too severe for agriculture. Along the coast of the Arctic Sea the land is of the tundra type, frozen and covered with ice or snow for much of the year, and marshy when the snow has melted; the very few inhabitants depend upon the sea as much as upon the land for their living.

Just as the old edge of the ice sheet marks a difference between the greater part of Finland and its southern coast, so a difference is found between the greater part of the Scandinavian peninsula and its southern portion, for here also there was a time when the ice remained in the north while the region south of the belt of great lakes was free. An ordinary atlas shows a number of

lakes in Finland and a few in Scandinavia, but only a large-scale map reveals the fact that there are thousands of lakes, large, small and tiny, in each region. The ice has played a very similar part in both countries, and so it is one of the chief factors in making Sweden infertile, and thereby preventing the growth of a great nation.

Although the ice has injured agriculture, it has helped the country in other respects. The rapids and falls in the rivers check navigation, but may give water-power. The falling or fast-running streams may be directed into water-wheels or turbines which revolve and set machinery in motion. This machinery may be used in several ways : it may turn mills for grinding corn, or for sawing timber, or for reducing wood to a pulp from which paper is made ; also it may produce electricity, and then this electricity can be applied to many uses. It can drive railway trains or tram-cars, it can be used for lighting, it can be applied to machinery in factories of any kind, it can heat electric furnaces in which metals can be melted or chemicals produced. Moreover, the electricity can be used for these purposes either where it is produced, close to the rapids or falls, or it can be easily conveyed by wires for many miles to cities or other convenient places. In all these ways the water-power of Sweden and Finland is now being employed, and other glaciated regions in Europe and in America are now taking advantage of the water-power due to the ancient ice sheet. In Norway, water-power from glacial falls is not so common, but the streams falling from the high plateau to the sea are similarly valuable, and these are now being utilised to a large extent.

If Denmark is thought of as a peninsula of the mainland of Europe, it may seem to be quite distinct from the Scandinavian lands, but the people of Denmark are Scandinavians. Moreover, more of them live upon the

islands than upon the mainland, and these islands are very closely connected with the southernmost par of Sweden. For these reasons it is convenient to consider Denmark with the Scandinavian lands.

It has been explained above that at one period the edge of the ice was near the lake-belt of southern Sweden and near the southern coast of Finland. At an earlier period, when the climate was still colder, the ice had a wider extension and its edge was found in regions further south (see the line marked II in Fig. 1). This edge ran through the Danish peninsula of Jutland, south of the Baltic Sea and across north-western Russia.

At a still earlier period, when the cold was even more severe, the ice extended still further, as is shown by the line marked I upon the map. Thus the regions south of the Baltic Sea show important effects of the ice, but probably it never had so great an influence here as in Finland and north Scandinavia, and as it melted from this south Baltic region many thousands of years before it melted from the northern area there has been time for some of the most marked features to have disappeared. The rivers have drained most of the lakes, and though some are still left and marshes are frequently met with, more of the land is able to be used for agriculture. Also the streams have cut down through the obstacles in their path so that their courses are less impeded by rapids: navigation is therefore possible, but water-power is not so abundant. There are other effects of the ice which have to be explained when Germany is studied; for the present the attention must be limited to Denmark.

The edge of the ancient ice which ran northward through Jutland is marked by morainic hills rather like those of the coast of Finland, and in the glaciated area east of these and on the islands the surface of the land is uneven enough to give a pleasant variety to the scenery.

This country was once covered with deciduous forests, largely composed of beech trees, but as the glacial deposit is fairly fertile and the climate is warmer than in the other lands we have considered, most of it is now cleared. The glacial deposit is largely of clay, with which sand is sometimes mixed, and in the clay are found stones of all shapes and sizes, even huge boulders larger than a room, dragged from Scandinavia ; this mass is called boulder-clay, and it covers a considerable part of the glaciated region. Some of this soil in east Jutland and the Danish islands is used for agriculture, but a large proportion of it is pasture land, for the Danish farmers are famous for the animals they keep and the milk and butter they obtain.

The western part of the Danish peninsula is quite different from the east. It is a low, flat, sandy region, very like that of the south shores of the North Sea. The sandy soil is infertile, and along by the shore are dunes made of sand washed along the coast by the sea and blown up over the land by the westerly wind. The wide flats of sand exposed when the sea goes down at low tide, have only narrow, shallow, winding channels in them, and so ships avoid this coast, and the chief harbours of Denmark are on the eastern side, where also are most of the people who wish to sell and buy ; the larger towns, therefore, are either on the eastern coast or on the islands.

The Scandinavian Peoples.—Swedes, Norwegians, and Danes all belong to the same branch of the Northern race ; they are mostly tall, with fair hair and blue eyes. In the past they have been very closely united, and originally they all came from one group of people who

lived in the region of the Danish islands and the southern lowlands of the Scandinavian peninsula as far north as Christiania and the lake belt of Sweden. The sea channels joined rather than separated the various settlements of this people. At the heart of the region, on the Sound between the islands and the southern extremity of the peninsula, grew up the capital, Copenhagen. Here was the centre of the ancient Kingdom of Denmark, which later gained power over the north of the Scandinavian Peninsula, and even obtained possession of distant islands, the Faroes, Iceland, and Greenland; consequently these islands are still joined in government to Denmark.

The Danes conquered, and for a time ruled, the eastern part of Britain, and the present population of this portion of the British Isles is partly descended from the Danish settlers.

Several centuries ago, the Swedish region broke off from the rest, Sweden became an independent Kingdom, and its language grew more unlike the Danish language. This left Copenhagen at the frontier and not, as of old, at the centre of the Kingdom of Denmark. Norway, however, remained under the Danish kings, and during this time the Danish language was spoken over the greater part of Norway, although dialects were used by particular groups of Norwegians; hence the Norwegian and Danish languages are now very similar.

A little more than 100 years ago there was the series of wars following the French Revolution, which we call the Napoleonic Wars. These involved nearly all the countries of Europe, and brought about changes which may be compared with those of the recent Great War. At this period Norway became separate from Denmark, and then, against the will of the Norwegian people, the King of Sweden was made also the King of Norway;

only at the beginning of the present century did Norway become entirely free and able to choose her own ruler.

Thus, although they form part of the same peninsula, Norway and Sweden were for a long time separate states, and, moreover, for much of their extent they are divided by the uninhabited plateau across which communication is difficult. Also the Norwegians, living by the coast and constantly upon the sea, either as fishers or to get from one fiord to another, used the water as a road, became seafarers, and so came into contact with the other coast lands of Europe, particularly the British Isles. The Swedes, however, passed across the Baltic to Finland, Russia, and Germany, and so had more relations (either peaceful or hostile) with these countries.

DENMARK

Denmark is now quite a small country, only about half the size of Scotland, and has a population of about 3,000,000 people, that is, rather more than half the population of Scotland. It has no minerals to form a basis for manufactures, and the work which directly or indirectly supports the great majority of its people is the keeping of animals, particularly cattle and pigs, and the production and export of dairy produce.

Until about forty or fifty years ago, it depended upon growing grain as food for its people, but when the great farm lands of America were opened up, and grain was sent in large amount to Europe, this competition threatened to ruin the Danish farmers. Very wisely they saw that they must change their methods and produce commodities less open to competition than wheat, which could be sent great distances cheaply, and without being spoilt. So they turned their attention to

producing milk, cream, cheese and butter, and men did not then know how to preserve butter by freezing it so that it could be sent across the world. The Danish farmers, therefore, gave up growing so much grain (they now grow some oats, less barley and rye, and a very little wheat) and kept more cattle, obtaining and carefully breeding those kinds which yield most milk. A machine was invented for separating rapidly the cream from the milk; the skim milk is partly used for making cheese and partly sent back to the farmers for feeding their animals. Some of the cream is sent away as cream, but most of it is turned into butter. This work, and indeed most of the work in the dairies, is done by machines, and modern science has been applied to the methods with great thoroughness. Moreover, so many animals are kept that they cannot be fed on the pastures and crops of Denmark, and large quantities of cattle food, including barley, maize, and oil-cake, are imported from abroad.

Thus the dairying industry may almost be compared with a manufacturing industry, for to some extent the cattle take the place of machines. The raw material (in this case cattle food) is imported, the commodities (in this case dairy produce) are made in the country itself, and a large proportion of the products is exported to neighbouring countries, especially Britain and Germany, in exchange for the food, clothing, and other necessities of the people engaged in the work. The use of machines in the dairies necessitates the importation of coal, and this is obtained from England, for it costs no more to carry coal from Newcastle to Copenhagen than to London.

A very important feature of the industry is the development of co-operation. The farmers in a district join together to establish a large dairy which they own in common; their milk is taken to this co-operative dairy and they share in the profits of the manufacture of

the cream, cheese and butter. Similarly there are co-operative societies for collecting and exporting the eggs which are obtained in enormous numbers, and co-operative slaughter-houses to which the pigs are sent.

The farmers needed money to stock their farms with the best kinds of cattle, to purchase cattle food from abroad, and to build their dairies and equip them with machinery; this capital had to be borrowed, and for this purpose co-operative credit societies were formed, in which the farmers join together to borrow the money and then lend it to the particular people who need it. Much of this capital is borrowed from abroad, and part of the produce which is exported goes to pay the interest on the borrowed capital.

Another great help to the very successful dairy industry is education. The Danish people are well educated; there are very good " high schools " to continue elementary education, and a large number of colleges take young men and women for the period between seventeen and twenty-five years of age. Also there are colleges to teach the best methods of rearing animals and making dairy produce, and scientific work is done to extend man's knowledge in these matters. The industry has flourished because the people are intelligent as well as hard-working, and greater nations have sent men to study their methods and adapt them to the needs of other countries.

The foreign trade is largely bound up with this industry. Copenhagen is by far the largest port, and other much smaller ones such as Aarhuus and Aalborg are on the eastern side of the mainland, but until recently there was no port on the North Sea shores. So a harbour was constructed at Esbjerg, particularly to facilitate trade with Britain, to which country butter, cheese, eggs, and pork are sent, and from which coal and manufactured

goods are brought. Also from America and elsewhere food for men and cattle is imported. Copenhagen used to be well situated for trade, because it is on the island of Zealand (Seeland), by the Sound, the most direct of the channels leading into the Baltic Sea. But the Sound is so shallow that the largest ships have to go through the Great Belt, which is deeper, and also the Kiel Canal now gives a much more direct entry to the Baltic Sea, so that Copenhagen is off the route of much of the traffic. Nevertheless it is a large city, with over 600,000 inhabitants, and is important as being the capital of the country.

SWEDEN

Sweden is the largest and most important of this group of states. In area it is much larger than the British Isles, but its resources are so poor that it only supports about six million people. It extends from Denmark in the south-west to Finland in the north-east, and the occupations of its people change according to the part of the country they inhabit.

In the extreme south-west, in the part called Scania which adjoins the Sound, the land is exactly like that of Denmark, and here dairy-farming and the making of dairy produce are the chief industries. Even the co-operative system has spread across the Sound to Scania. Moreover, Copenhagen is joined by ferry boats to Malmö, which lies opposite to it, and is the chief town of this part of Sweden. Scania is the only part of Scandinavia which has coal deposits, and these are of value to Sweden, even though the amount is small and not to be compared with that obtained in Britain. Of the remaining part of Sweden the chief pastoral and agricultural region is that around the belt of great lakes, where the lowlands have a

better soil than elsewhere (except in Scania). In these more northern parts dairy farming is less important than in Denmark and Scania, and the number of people who get a living in Sweden by this and other kinds of farming (*e.g.* by growing some oats and rye) is becoming steadily smaller. The other occupations have grown as agriculture has declined.

Forestry is important, for more than half the land is still covered with forest. For centuries timber has been exported, and in recent years the demand has increased, particularly with the use of enormous quantities of paper made from wood-pulp. So Swedes have gone northward into the region they call Norrland, *i.e.* Northland, mainly to cut down the forests and prepare and export the products. Much more than half of the total exports of Sweden consists of timber and timber products; there are mills which saw the larger timber into planks, other mills turn the smaller wood into wood-pulp and paper, others again cut it into match-sticks and large quantities of matches are exported; also there are some furniture factories.

The mines of Sweden have long been famous. For example, the mines at Falun in the valley of the Dal River were for nearly 200 years the chief source of copper in the world. But greater deposits have now been found in other countries, and the amount of copper obtained here has greatly decreased. Swedish iron also has been famous for centuries. In the times when charcoal only could be used for smelting iron (coal was not employed until about 150 years ago) the mines and forests of Sweden together gave rise to a considerable proportion of the world's output of iron and steel. The importance of Sweden in this respect became less as other countries, particularly Britain, America, and Germany, found they had coal and iron which could be used together, but there

is still quite a considerable amount of smelting carried on in Sweden, and it still uses charcoal as a fuel. This is got by slowly burning great stacks of wood in the forests ; it is then sent to the blast-furnaces situated in the lake belt where the older iron deposits are found. Nearly all the iron and steel is made in the district extending from the northern shores of Lake Vener to the mouth of the Dal River.

The ore here is being exhausted, but fortunately for Sweden much greater deposits have been found elsewhere, namely at Gellivaare, and other places in the neighbourhood of the Tornea and Lulea. This is so far north that the Baltic Sea and the rivers are frozen over for about half the year, and the export is thereby prevented. The use of these deposits was therefore kept back until the railway had been built from Lulea across the plateau to the Norwegian port Narvik, on the Ofoten Fiord, which is open all the year round. This is now the chief source of Swedish iron ore, which is cheaply exported to Britain and other countries of western Europe. Most of the iron is sent away in the form of ore, only a small part is smelted first, and a still smaller part is made into iron and steel goods. Nevertheless, there is a growing manufacture of iron and steel goods in the lake belt region and around Dannemora near the mouth of the Dal River. Other minerals, particularly zinc, manganese, and sulphur, are also obtained.

Water-power is being increasingly used for the various mills dealing with wood, for the iron and steel industries, and for railways ; the " northern iron railway " is now run by electric power derived from water. Indeed, most of the machines use water-power, for nearly all the coal has to be imported and it is therefore dear, and yet less than one-fifth of the total water-power is at present utilised.

The fishing round the south coast gives work to many people; herrings are the chief kind of fish caught, and they are salted and exported. The Kattegat waters are most productive in the fisheries, for many less fish are obtained in the fresher waters of the Baltic Sea.

It has been shown above how the productive lake belt has a continuous waterway through it from the Baltic Sea to the Göta River, and so at the mouth of this river is the important port Göteborg (Gothenburg). On the Baltic side of this lake region, at the entrance to Lake Mälar, is Stockholm, the capital, a city of nearly half a million inhabitants.

The resources of the country do not provide enough work for the increase of the population. In ten years this increase would amount to about three-quarters of a million people, and although in years when trade and industries flourish and expand more people can find work, in the poorer years many people have to go abroad. On an average, this emigration accounts for nearly half the total increase of the population, and in most years many thousands of Swedes go to North America, either to Canada or the northern part of the United States.

NORWAY

Norway is the second largest of the Scandinavian states, for its extent is about equal to that of the British Isles, but it has considerably less than three million people, that is, fewer than either Denmark or Finland, for much of its area is highland, from which practically nothing can be obtained. As the population of Norway has increased, so the people have had to buy food from abroad (chiefly rye, wheat, and barley); the little they can

grow is mainly oats and potatoes, as well as fodder for their animals. They have followed Denmark in giving great attention to dairy farming, and most of their dairies are carried on by co-operation; they manage indeed to export dairy produce, and this is largely in the form of condensed and canned milk, butter not being so largely made. These exports partly pay for the import of food, and, as in Sweden, the products of the forests and mines are also sent abroad. Timber cutting and sawing, with the making of wood-pulp, paper, and matches, form the greater part of the small and simple manufacturing industries of Norway.

Norway is like Sweden also in its mining. It has a considerable production of iron ore, largely from the north. These mines are behind the coast almost on the Arctic Circle; they contain huge amounts of ore, but unfortunately the proportion of iron in the ore is small, so that a large amount of ore yields only a small amount of iron. This prevented the iron being mined, for it cost too much to carry away the bulky and not very valuable ore, until the great American inventor, Edison, devised a method of using electricity to separate out the best of the ore which would then pay for the cost of transporting it. So at the end of the nineteenth century, these ore deposits became valuable and were quickly used—a good example of how the resources of nature become important to man only when his knowledge becomes great enough to take advantage of them. In central and southern Norway there are also large deposits of iron ore, but they still lack development. Copper also is found, and is quite important to Norway; it is found in great amount at Röros near the head of the Glommen River, where the railway from Sweden and southern Norway goes from this valley over the water-parting to the sea at Trondhjem. More recently copper

has been discovered on the plateau within the Arctic Circle, north of the iron deposits.

Fishing has always been important for the Norwegians, and, indeed, it has recently become more important so that now there are 100,000 fishermen in this country—as many as there are in the British Isles, although our population is nearly twenty times as great. The fishermen not only catch cod in the shallows off the shores, but go farther away for the herring, and to Arctic waters where whales and seals are found. In recent years the canning and export of fish have rapidly developed. The fishing has greatly helped to make the Norwegians a nation of seamen, and skilled in the building of ships. Even now that ships are largely made of steel some shipbuilding is carried on, and the Norwegians are still a seafaring nation, whose ships and seamen are found in all parts of the world.

It is therefore easy to realise that throughout history this infertile land has sent out men to find across the sea a living which was impossible for many at home. Here, still more markedly than in Sweden, the increase of population leads to emigration, more than half of the additional people in each generation having to go abroad. In early times, they formed the bands under the leaders known as Vikings, who raided and settled upon the shores of western Europe, including Britain. Many Norse names of places show where they occupied the coastal lands of North Britain, and spread round to the west of Scotland and as far south as the Irish Sea. The people of these parts show by their appearance and names that they are in part descended from the Norse invaders. In France, too, such seafarers founded the settlements of the people we know as the Normans, and they extended along by the coasts to the Mediterranean on the south and, by going from one island group to another, to

Greenland on the north. They even followed the north-western route further still and discovered America, centuries before Columbus, although this discovery was afterwards forgotten. In early times these seafarers might plunder and kill, but in later centuries settlement has been peaceful and orderly; for many hundreds of years, therefore, Norway has bred strong hardy men who have gone to more favoured lands.

In the future the development of the water-power will give the country a resource it has hitherto never had. In the south-west the water-power is very great, for the rainfall and snowfall are great, and the water has to fall thousands of feet in the short distance between the plateau and the sea. Already the people use far more power from water than from coal, and they have begun, notably at Odde near a branch of the Hardanger Fiord, a great industry in the making of chemicals. The total power resources are probably greater than those of Sweden, and though they are not enough to support manufactures as great as those of the British Isles, yet Norway may quite possibly rise to be a manufacturing country with a population much greater than can be supported at present.

The capital is Christiania, with about a quarter of a million inhabitants, in the greatest area of lowland, the centre from which the Norwegians first spread out around the coast; Bergen is the chief fishing centre, and is joined by a railway across the plateau to Christiania. Trondhjem is the meeting place of two routes across the plateau, one coming from Christiania by the Glommen Valley, and the other, further north, from the Baltic region and Stockholm. But travel by land is difficult and little used; the Norwegians still follow the sea to go from place to place or to exchange their goods.

FINLAND

Although seven-eighths of the population of Finland are Finns, of Asiatic origin, it has been conquered alternately by its greater neighbours Sweden and Russia, and of the two Sweden has had by far the greater influence upon it. In the earliest times of which there is any definite knowledge, there were Scandinavians living in the country, and the Finns came in more than a thousand years ago. But later, Sweden conquered the land, and it was governed by that country until about a century ago. During the Swedish rule, however, Finland did not have peace, for it was a "buffer-land" between Scandinavia and Russia, the shock of warfare fell upon it time after time, and its people suffered in consequence. At the beginning of the nineteenth century, among the changes of the Napoleonic Wars, Russia obtained possession of the country, and before the outbreak of the recent Great War allowed the inhabitants of Finland very little power of self-government.

Yet the people felt themselves to be a nation and claimed their right to an independent parliament, called a "Diet"; they particularly resented attempts to conscribe them into the Russian army, and when a revolution broke out in Russia in 1905 they seized the opportunity to rise and assert their rights. They gained only a short-lived advantage, however, and they had to wait until the collapse of the Russian power in the Great War enabled them to obtain complete independence.

At no time did the Russians form any considerable proportion of the population or have any influence in making the people like Russians in any respect; but the Swedes, on the contrary, form about one-eighth of the population, and have had a great influence upon the people; for example, the education and culture of the

Finns has been largely affected by Swedish people and ideas. Until about a century ago, the educated people spoke Swedish only, and the language of the ignorant Finnish peasants was of no account. But then a teacher of the University of Helsingfors collected many old folk-songs which had been handed down by the Finns for generations, and from them pieced together a long poem, called the Kalevala, describing the acts and adventures of the old Finnish heroes. This led to a revival of the language, helped by the Swedes, until now most of the newspapers are printed in Finnish, and it is used in the schools, the universities, and the Diet. Swedish influence is shown in the religion, for practically all the people belong to the Lutheran (Protestant) church, very few belonging to the Greek Orthodox (Russian) church.

The country is but scantily populated, for although it is about as large as the whole of the British Isles, its population is only about 3,000,000. The least scantily populated region is that of the less glaciated coastal region of the Gulf of Finland, and it is here that most of the Swedish part of the population lives. As regards density of population the eastern coastal region, along the shores of the Gulf of Bothnia, comes next, and here again there are Swedish settlements. The lake region has still fewer people, and the northern interior is almost uninhabited except for a few people in the river valleys.

Agriculture occupies more people than any other form of work in spite of the unfavourable natural conditions, but these may be improved, especially by hastening the very slow natural draining of the marshy lands and by removing (and using as fuel) the peat which covers large areas of what may become cultivable land. Rye and oats are most grown, there is some barley, but practically no wheat. The people used to have to support themselves in respect of food supply, but the other products

they now export allow them to obtain wheat and rye from abroad ; moreover, now that they can import rye for their rye-bread, they are growing more oats (for animal food) because oats are not so likely to be killed by frost as rye is, if the winter frosts occur before the harvest is ripe. This has often happened, and then famine comes upon the people ; the climatic conditions are so severe that the land is just on the " margin of cultivation," and the shortening of the summer even by a few days brings disaster. Many cattle are kept, and millions of pounds of butter are exported to Britain each year.

The forests of pine and spruce fir which cover more than half the country yield timber, and the cutting, sawing, and exporting of the wood and its products is the chief industry, excluding agriculture. To a small extent water-power is already used in the industries, but twenty times as much could be obtained as is now employed. The large Lake Saima is dammed back by the line of morainic hills which run along its south-eastern edge, and where this barrier is cut by the out-flowing Vuoksen River occur the great Imatra Falls. This is, however, only the largest of many rapids which can be, and probably will be, used. The most important manufacturing centre is Tammerfors, situated near the western end of the morainic barrier ; the water-power is here used for paper mills, and for cotton and linen manufactures. The greater part of the developed water-power of the country is used for the making of paper. Iron manufactures are increasing, as iron-ore is obtained along the southern strip of country, and most likely is hidden in greater quantities beneath the glacial deposits and marshes of the interior.

It may be observed how the group of industries in Finland, connected with the forests, the mines and the water-power, resemble those of north-eastern Sweden ;

similar physical conditions have led to similar economic development. Of recent years the population of Finland has grown markedly, because of the development of the industries and the corresponding growth of trade. Helsingfors, which is the capital, is in the centre of the most productive and best-populated district, and has a very good harbour. It is the largest town, but has less than 200,000 inhabitants ; next to it as a trading centre comes Abo, which used to be the capital, and had a university established when the country obtained its freedom. In addition to wheat and rye, the people import other foodstuffs such as sugar and coffee, iron to supplement their own supply, and cotton, chemicals, and other materials for their industries. In exchange for these, they export their timber, paper and cardboard, some iron and textile manufactures, and the products of their animals : *viz.* leather, hides, and dairy produce. Moreover, along the coast many people are fishermen, and they have a surplus of fish for export.

Finland began its history as an independent nation less devastated by the Great War than most of the other newly formed states, and may enjoy prosperity if peace allows the people to develop the country by utilising more fully those resources which Nature has provided.

CENTRAL EUROPE

Between the Scandinavian lands in the north and the Mediterranean region in the south lies Central Europe, bordered on one side by the western countries France and Belgium, and on the other by the east Baltic and Russian lowlands. If the mainland of Europe is thought

of as stretching from the Ural Mountains south-westward to the Atlantic coasts of France, Spain, and Portugal, Central Europe may be thought of as lying directly across the centre of it, and so extending from the North Sea and Baltic Sea on the north-west to the Black Sea on the south-east.

Its river systems emphasise this situation of Central Europe, for they form two groups : one set flow to the north-west, the Rhine and Elbe to the North Sea and the Oder and Vistula to the Baltic Sea ; the other set unite to form the Danube and flow on the whole south-eastward to the Black Sea.

The states which make up Central Europe may be grouped somewhat similarly. Holland, Germany, and Poland occupy the greater part of the basins of the rivers which drain to the north-west, while Austria, Hungary, and Rumania are drained by the Danube. Two states do not fall clearly into either group : Czecho-Slovakia lies across the water-parting, while Switzerland drains partly to the North Sea and partly to the Mediterranean Sea.

There is another geographical distinction between the northern and southern sections of Central Europe. The northern section has lowland bordering the seas and, further inland, uplands of only moderate height. In the southern section there are two great systems of much higher mountains, the Alps and Carpathians, and adjoining them the plains of Hungary and Rumania.

These plains, uplands and mountains of Central Europe are so fitted in to one another that the physical geography is quite complicated as compared with that of the Scandinavian lands, and there is a similar complication of the peoples, for several races have become mingled with one another in the various valleys and plains. Hence there are now quite a number of separate states in this region ; also the problem of settling suitable

boundaries has been particularly difficult, and this region is still one of political unrest.

The Baltic Lowlands.—Just as in the Danish Peninsula the line of glacial deposits at the edge of the old ice sheet (marked II in Fig. 1) is an important feature, so it is in the lowlands south of the Baltic Sea. The line is continued from Denmark southward and then eastward behind the Baltic coast, forming a series of low, irregular, plateau-like masses to which the name of Baltic Heights is sometimes given, from here these heaps appear high by contrast with the rest of the land. In the eastern part they are broader, and in the irregularities of the plateau are found many small lakes.

When the ice extended as far south as this line, the mass of water which melted from its edge could not flow northward, for the ice covered the hollow now occupied by the Baltic Sea ; nor could it flow southward, for there the land rose to the uplands and highlands. Indeed, these highlands themselves were covered by another mass of ice, from which water drained northward, meeting that resulting from the melting of the ice from Scandinavia. Hence there was a great accumulation of water between the edge of the northern ice sheet and the central uplands, and most of this water drained away westward in great rivers flowing to the North Sea region. These rivers had far more water in them than any rivers of this part to-day ; they cut deep and wide valleys, and deposited great masses of gravel in their beds. At one time and another during the Ice Age several such streams flowed westward or north-westward in more or less parallel courses, which here and there joined one another until they united in what is now the lower part of the valley of the River Elbe past Hamburg to the North Sea (see Fig. 2).

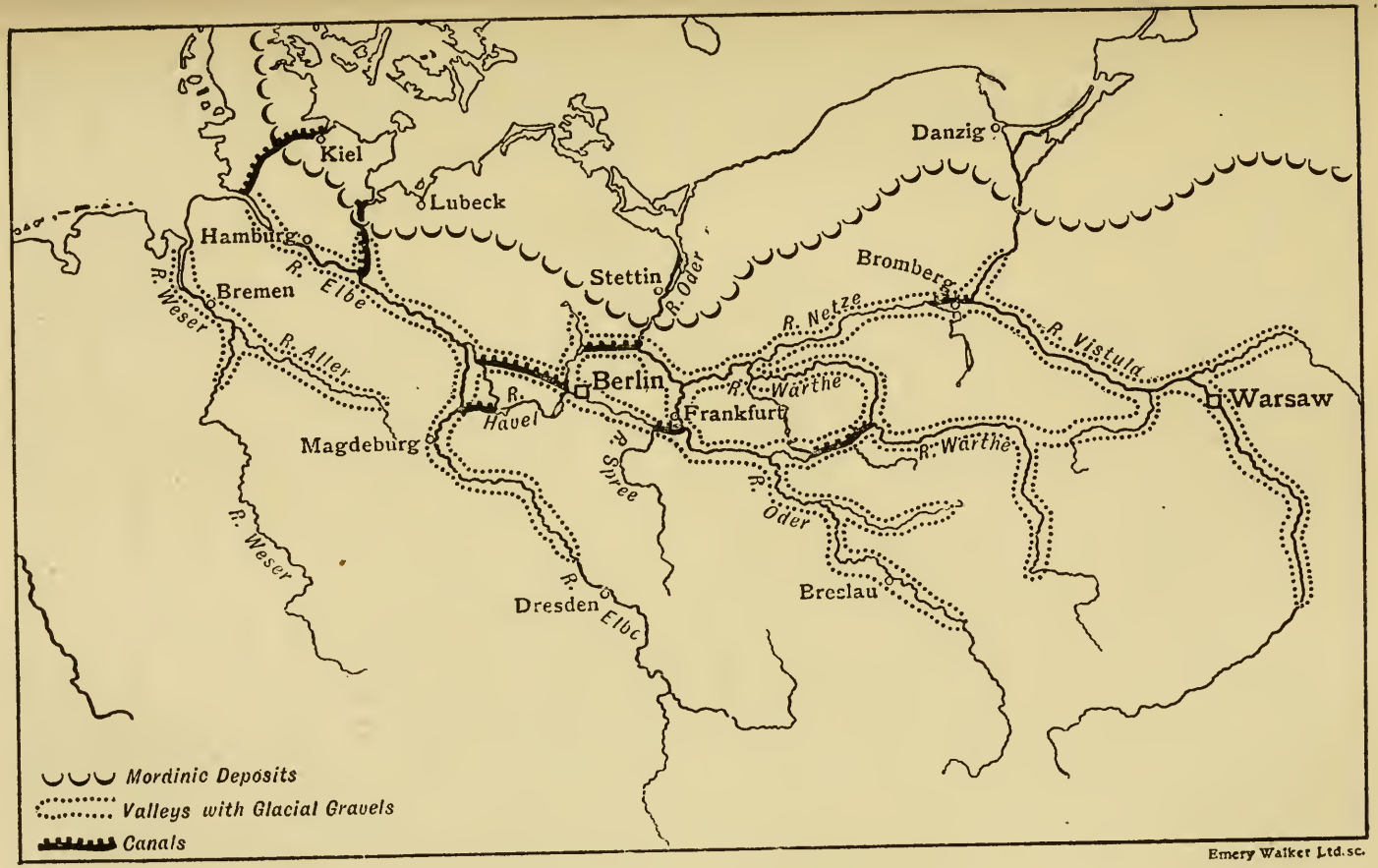

FIG. 2.—Waterways connected with the Lower Elbe.

When the climate was warmer and the ice had retreated, there was no longer the great mass of water from the north, and many of the valleys were left dry. Also the drainage from the south could now go northward into the Baltic Sea, and so at certain points the water left the westward channels and turned northward. Thus the present rivers to some extent follow the old glacial valleys, but have sharp angles where they turn to the Baltic Sea.

By referring to Fig. 2, it may be seen that the Vistula in its middle course near Warsaw flows on the whole to the north-west until it is about 100 miles from the Baltic Sea; then, just before reaching Bromberg, it turns at right angles, and its lower course is almost north-eastward. From Warsaw as far as this turn its valley is very broad and marshy, with gravels dropped by the old glacial waters, and this valley with its gravels is continued westward by the town of Bromberg, although the river has left it and turned to the north. Further to the west the same broad valley has in it a small stream, the Netze, which flows westward till it joins the Warthe, a tributary of the Oder; both the Warthe and the Oder for part of their course follow the same line. Thus the same great valley is occupied in turn by parts of four rivers, but the Vistula is at one end and separate from the other three; men have, therefore, taken advantage of the continuous valley to make a canal joining the Vistula to the Netze, and so to the Warthe and Oder. The valley is not long occupied by the Oder, which breaks out, turning sharply to the Baltic, but it can be followed still further westward, partly occupied by marshes, partly by streams. It passes to the north-west of Berlin and becomes the lower course of the Elbe. Here, again, canals have been constructed, so that there is continuous river and canal communication from the Vistula, by

the lower Oder, to the lower Elbe and so to the North Sea.

Another great line of inland navigation begins with the Upper Oder not far from the Carpathian Mountain region. Past Breslau the river flows north-westward in a great glacial valley. Then just before reaching Frankfurt it turns northward, but the valley is continued straight on, and after about twenty miles a stream called the Spree comes into it and follows its course westward. In the gap between the Oder and the Spree a canal was made so that traffic can go from the Oder to the Spree, on which Berlin stands, and onward in the same direction by river and canal to the Elbe. Hence Berlin is the centre of far-reaching water communications.

The upper Elbe also flows north-westward first through Bohemia, and then through Saxony, but it turns sharply northward at Magdeburg. But in this case the line of gravels also turns, showing that the old glacial drainage did not go straight on. If the north-westerly direction is continued past Magdeburg, another stream is indeed soon found, the Aller, a tributary of the Weser, but although there would be no difficulty in cutting a canal between the Elbe at Magdeburg and the Aller, no canal has actually been cut, and water traffic has to follow the Elbe.

Thus just as the old glacial waterways came together at the lower Elbe, so the inland water traffic of all central and eastern Germany, and even of Poland, can be directed to the lower Elbe, and can pass directly through the port of Hamburg to the North Sea without going first to the Baltic Sea.

On the Baltic coast of Central Europe there are three inlets to which large rivers drain, the Oder and Vistula already mentioned, and the Niemen farther to the east. These inlets are partly shut off from the sea by long narrow strips of land. In the case of the Vistula and

Niemen the lagoons (called " Haffs ") are enclosed by sand washed along by currents which are drifted eastward by the prevailing westerly winds. The land behind the coast is generally fertile until the line of glacial heights is reached. Then it is infertile and little used, largely covered with woods or heaths, and dotted with lakes and swamps.

Further south is the great expanse of plain cut by the wide, gravelly, and in parts marshy, valleys, but otherwise moderately productive. This region was beyond the reach of the ice sheet during the later parts of the Ice Age, but was covered much earlier. This earlier period was so very long before the later one, that although morainic deposits were left by the ice they have since then been so smoothed out that the surface is fairly regular, for the chief features are due to streams supplied with water at first by melted ice and later by rain. It has been explained how certain great gravelly channels were formed, but between these channels the ground is covered with finer soil broken and ground up by the ice and spread out by smaller streams and even by the action of the wind. At one time, winds played an important part by catching up the finest particles from the morainic deposits and blowing them southwards over these plains, and even over parts of the uplands still further to the south. These wind deposits form the fertile soil known as " loess," found widely spread in Europe over the regions lying on the southern borders of the great ice sheet.

The North Sea Lowlands.—The lands south of the North Sea have been less affected by ice than those south of the Baltic Sea, for only in its earliest extension did the ice sheet cover this part. There are no lines of morainic hills studded with marshes and lakes, but water from the ice brought masses of sand and gravels which

were dropped in an irregular way, so that in parts there are great heaps of gravel. These form patches of sterile country rising above the lower land. There are several such areas west of the Elbe ; the largest lies to the south of Hamburg, and is called the Lüneburger Heide. The word " Heide " in German means " heath-land," and this district is a low plateau-like country extending parallel to the lower Elbe for more than 100 miles, with a gravelly soil in which boulders are strewn. For the most part it is covered with heather and coarse grass, and is used only as pasture land for a few sheep ; here and there shallow hollows hold a little more moisture in the soil, and in them small groups of trees may grow. Another large area lies further west, on the border between Germany and the northern part of Holland, and here similar country is called " Geest." A third and smaller district lies across the boundary between the south of Holland and Belgium ; the Dutch call it the " Kempenland," and the Belgians call it the " Campine." In certain parts, these sandy and gravelly areas have patches of bog or moor lying upon them, often of a peaty character. These wet moors are extensive in the region of north-east Holland and north-west Germany ; the Dutch call them the " high fens," to distinguish them from the very low swampy regions which lie near to the coast.

Between the sandy heath-lands and the uplands of Central Europe, the soil is much better, and consequently agriculture flourishes and more people are found.

On the coastal side of the heath-lands the country is quite different. The westerly winds and currents drift sand along the coast and wash it up into lines of high dunes, which in parts, as in the central stretch of the Dutch coast between the mouths of the Rhine and the Zuider Zee, make a continuous wall between sea and land, but elsewhere are broken and form islands, as in the Frisian

Islands off northern Holland and western Germany. About two thousand years ago there were no breaks in the line of dunes, for where there is now the chain of islands there was then a continuous coastline of dunes about 200 feet high and 3 miles broad. Behind this barrier the rivers, especially the Rhine and the Maas, brought down sediment which collected until a delta-like mass was built up ; in parts there was less accumulation, and water remained in hollows, for example, there was a lake in the place now occupied by the Zuider Zee.

Then the land very gradually sank down. This was due to the loose river-mud settling down to a more compact condition, and perhaps also due to the solid ground beneath sagging down very slightly ; consequently the wall of dunes was lower, and the sea threatened to flood the land behind. The inhabitants then built walls or dykes along the line of dunes to protect themselves and for a time were successful, but in time of warfare, from the twelfth to the fifteenth centuries, the dykes were neglected. At last sea water broke in over parts of the dune barrier, leaving a chain of islands. It submerged much of the marsh lands, and turned the large lake into a part of the sea. Fishermen on the islands called the great area of water to the north of them the North Sea, and this new and smaller area to the south, the South Sea, *i.e.* " Zuider Zee."

The rivers still bring down great masses of alluvium, and some of this is dropped in their beds as they flow more slowly near the sea. Also in flood time their waters overflow their banks and alluvium is dropped on either side of the rivers. Thus the bed and banks are both built up till the water is flowing along a kind of embankment, higher than the country on either side, though prevented from overflowing by the banks. This is a dangerous state of affairs, for floods may break through

the banks, and the rivers turn into the lower country where they spoil the fields, destroy buildings, and drown cattle and people. The inhabitants must, therefore, make river-dykes on the banks as well as sea-dykes on the coast.

Much of Holland, in particular, has to be constantly protected from flooding by sea or rivers. Almost the whole of the western part of the country is actually below the level of the sea, and has been made habitable and useful in ways that will be described later, while large areas in Holland and also in Germany near the courses of the great rivers are below river-level though above sea-level.

The North Sea is very shallow, and its plateau-like "banks" nearly reach the surface. These banks, of which the Dogger Bank is the most important, are very productive fishing grounds, resorted to by fishermen from all the countries around. Besides the Norwegians already mentioned, the British and Dutch have large fishing fleets, obtaining herring, plaice, haddock, and cod. The waters of the Zuider Zee are brackish, and every spring anchovies migrate from the Mediterranean by way of the Atlantic Ocean and the North Sea, into the Zuider Zee, where they are caught by the Dutch fishermen.

Travellers going from the sea inland would cross several belts of country. There is first the belt of sand dunes, or sandy islands ; next, there is either behind the coast a stretch of very low land artificially protected and drained, or behind the islands there is an area marked as sea on the map, but actually covered by water only at high tide. At low water it is a stretch of sand, and even when the water covers the sand, only very small boats can use it, for it is so shallow. Only where rivers come into the sea, and have a current strong enough to wash away the sand and keep a channel clear, can larger boats cross this stretch. Even in these channels, and in the

rivers behind, dredging has to be continually carried on to allow traffic to get past this coastal barrier. Next comes the low country built up of river alluvium, clay and peat, which is usually marshy in its natural state. Then there are the large patches of glacial gravel with high fens lying upon them. Finally, there is the fairly fertile land above river-level which rises gradually to the uplands.

The people of the coastal strip are fishermen; the land below sea-level, even when drained, is damp and generally used for keeping cattle rather than growing crops; the country adjoining the rivers is used both for crops and pasture, the glacial gravels are little used, and the country of moderate elevation adjoining the central uplands is employed for agriculture of all kinds.

In past centuries the greater part of the North Sea lowland region was covered with forest. In the forest-clearings west of the lower Elbe lived the Saxons, and on the other side of the river were the Angles; tribes of these peoples migrated across the sea to Britain and formed the chief element in the population of England; hence the similarity between the peoples and their languages on the two sides of the North Sea.

The rivers which cross the lowlands carry much traffic, in spite of the unfavourable coast, between Central Europe and the North Sea. East of the Elbe are the Weser and the smaller Ems, each flowing into a large shallow inlet. Only small streams flow into the Zuider Zee, and south of it are the mouths of the Rhine and Maas, with several connected channels, two of which are called the Lek and the Waal. The delta of the Rhine and Maas has a number of shallow waterways and islands, and into its southern end drains the Schelde, which flows eastward across Belgium so that its mouth is in Holland. The Rhine is connected with the Ems by the Dortmund-

Emden canal. At or near the mouths of the rivers are great ports, and in the North Sea lowland region as a whole commerce, agriculture, and pastoral work together support quite a dense population.

The Western Uplands.—Going up the Rhine near Cologne (Köln) a man would be in an angle of lowland wedged into an upland plateau. The lowland gradually narrows till it practically disappears and the river for about seventy miles south of Bonn flows in a deeply-cut winding valley, with steep slopes quite close to the stream. Tributaries in similar narrow valleys join the main stream ; the most important is the Mosel, and the name of the town Coblentz is derived from its situation at the *confluence* of the Mosel and Rhine. The upland plateau as a whole is called the Rhine Massif (*i.e.* mass or block of high country), and the deeply-cut winding valleys divide it into parts which have particular names, *e.g.* the Eifel which lies north of the Mosel. In the valleys are villages and small towns, and seen from the rivers the country is beautiful, with steep slopes cut by ravines and often covered with woods ; in warm and sunny spots vineyards have been made on terraces, and quite a number of castles were built where precipitous cliffs beneath them offered security from attack. Through the valleys, roads and railways in addition to the rivers penetrate the plateau, and allow communication between the northern plains and the lands of Central and Southern Europe.

On the plateau a very different scene presents itself. It is flat-topped and dull in appearance, the narrow valleys are not seen until one is close to them, the ground is hard and so level that it is often ill-drained, and marshes and bogs are common ; trees are scarce, little agriculture can be carried on, and the region is almost desolate. The Eifel is the most interesting part, for there are a

great number of small volcanic cones to diversify the scenery, and some of the many tourists who visit the Rhine valleys go also to the Eifel. The plateau region west of the Eifel is called the Ardennes ; this is in Belgium, and its wooded valleys are as attractive as those of the German regions.

The hard rock of the plateau has some minerals in it, for example, some iron is found in the part which lies east of Bonn. At the northern edge of the Massif, east of the Rhine, is a strip of country of lower elevation in which iron and great quantities of coal are found. Under this edge of the plateau runs the Ruhr river, which joins the Rhine at Duisberg, and here is the Ruhr coalfield, sometimes known as the Westphalian coalfield, as this part of Germany is called Westphalia. Because of the coal and iron the Ruhr district has developed into one of the most important and most densely populated manufacturing regions in the world. A similar, but smaller, coalfield is found on the opposite side of the Rhine, along the edge of the Ardennes part of the Rhine Massif. Only a very small part of this western coalfield belongs to Germany ; the greater part of it lies in the valley of the Meuse in Belgium, and a smaller part extends into France.

Above Mainz, and as far as Basel, the Rhine is in a valley quite different from that just described. This upper valley is broad, being on an average about 20 miles wide, and it is nearly 200 miles from north to south. Through it the stream wanders slowly over flat ground, partly built up of the alluvium it has deposited in the past. This is a country of prosperous agriculture, with many villages and towns. The river is navigable for small boats, and much commerce and even manufactures are carried on in the greater cities which are built by the river or its tributaries.

On each side of the great valley are plateaus with steep slopes facing the Rhine ; the tops of the plateaus are not level, for on the whole they slope gently in the direction away from the Rhine and are cut up by river valleys. Woods cover most of the higher parts and the steeper slopes. The western block is high in the north, lower in the centre just north of Strasbourg, and highest of all in the south, where it is called the Vosges Mountains. In the central lower part, north of the Vosges, is the pass known as the Col de Saverne, by which a road, a railway, and a canal join Strasbourg and the French part of the Rhine valley to the French lowlands on the west side of the block. The opposing eastern block is similar in form ; in the north is a high mass east of Mannheim, in the centre a lower part, and the highest part in the south is the Black Forest Mountains.

The two blocks are very similar in other respects ; they are made of the same rocks and their appearance corresponds. This similarity is not accidental ; it is due to the fact that they are two parts of what was one great mass, in a very distant period. Before even the Ice Age, the crust of the Earth was so disturbed here by great pressures within, that two great faults occurred where the steep slopes of the blocks now face the plain. On either side, the ground was raised to form the highlands, while between them the ground gave way so that the valley was formed. A valley let down in this way between parallel faults is called a Rift Valley, and this particular one is frequently termed the Rhine Rift Valley, while the Vosges, the Black Forest Mountains, and the Rhine Massif are all termed " Block Mountains."

The Rhine enters the Rift Valley at Basel, between the Black Forest and the Jura Mountains ; these will be described in a later section.

Most of the streams of the western block do not run

directly to the Rhine, but flow westward down the gentler slope. The Vosges mass is drained by the upper part of the Moselle. This part is the French province of Lorraine, and so the name is spelled " Moselle " in the French fashion ; where the river turns to the north-east through the Rhine Massif the country is German, and the name is spelled " Mosel." In the middle part of the Moselle valley are very important iron deposits which have for many years been a source of conflict between France and Germany. The northern part of the block is drained by the Saar (or Sarre) tributary of the Mosel, and in the central part of the Saar's course and on the north-east side of the river is the Saar coalfield, also an object of desire by both France and Germany. This region in general, lying between France and Germany, has been of very great importance in the history of the two countries, and what has occurred here both before and after the Great War must be explained more fully later.

The eastern block is drained largely by two rivers, the Neckar and Main, which at first flow northward in winding or zigzag courses, and then turn westward into the rift valley ; the Neckar enters the Rhine at Mannheim, and the Main at Mainz, both of which places are busy river ports.

On the south-east side of the basins of the Neckar and Main, the land rises in a very marked step, like a huge terrace, to a higher plateau. This is commonly called the Bavarian Plateau, for much of it belongs to the German state of Bavaria, but the south-eastern corner is a part of Austria. Its terrace-like edge continues the line of the Jura Mountains ; it is sometimes called the Swabian Jura in the part overlooking the upper Neckar basin, and the Franconian Jura in the north-easterly part overlooking the upper Main basin. These two river basins

form pleasant fertile country, but the Bavarian Plateau is less pleasant and less useful. It is drained by streams flowing northward across it from the Alps to the Upper Danube. This great river rises where the Bavarian Plateau joins the highest part of the Black Forest Mountains, and it runs close to the edge of the plateau north-eastward till it meets the high ground near the Bohemian Forest Mountains; then it turns to the south-east at first under the slopes of these mountains and then between them and the Alps. In the Ice Age the whole of the Alpine region was covered by ice, and the Bavarian Plateau received from its melting great masses of water bearing sands and gravels; these gravels cover much of the ground of the plateau, rendering it rather infertile, and in parts the glacial deposits blocked up the river channels, preventing drainage and making lakes; some of these lakes still remain and others have been partly drained, but their sites are still marshy and almost useless. Thus the Alpine ice sheet, as well as the much greater northern ice sheet, affects the prosperity of the people of to-day.

The Eastern Uplands.—The Bohemian Forest Mountains form the south-western side of the diamond-shaped Bohemian Plateau. At the northern end of the Bohemian Forest Mountains is a group called the Fichtel Gebirge; in German this means "Fir Mountains," and it is an example of the practice of naming mountains from their appearance, for they are largely covered with fir trees; similarly the Black Forest Mountains are named because of their dark masses of fir trees. The Fichtel Gebirge form the western corner of the Bohemian "diamond," and its north-western side is formed by the Erz Gebirge; this name means "Ore Mountains," but most of the ores that used to be obtained here have been

used up. The northern slope of the Erz Gebirge is a gradual one, and forms part of the state of Saxony, where some coal and a little silver are mined. The north-eastern side of the Bohemian "diamond" is clearly marked by the Sudetes Mountains, but the fourth side, on the south-east, is less clear, for it is a rather flat water-parting between the streams flowing northward to the Elbe and those flowing southward to the Danube or its tributary the Morava (or March).

The Bohemian plateau forms the upper basin of the Elbe river which breaks through the northern part of the Erz Gebirge in a narrow valley. The interior part of the plateau slopes northward, in the direction in which its rivers flow. The southern part is therefore higher, and as it is of hard rock it is not very fertile; the northern part is lower, and deposits of softer soil have covered the older and harder rock, so that the northern part is more fertile and can support a greater population. Moreover, the central and northern part has a rather small amount of coal and a larger amount of lignite, or brown coal, which gives less heat but is nevertheless largely used as fuel. It has also some other minerals, and these resources help to make Bohemia a productive and busy region. When as a result of the Great War the Czechs who live in Bohemia broke off from Austria, this region became the most important part of the new state of Czecho-Slovakia, and left Austria very much poorer by its loss.

The Bohemian plateau and the mountain masses that surround it are all formed of blocks like those of the more western uplands. Faults have occurred along the edges of the plateau, and the internal disturbances in the Earth have forced up the blocks on the outer sides and let down the block in the centre, especially in the north. The faults on the Bohemian side of the Erz Gebirge are particularly well marked, giving a very steep edge to the

mountains, and through the faults waters are still forced upwards to the surface; the waters have dissolved certain salts which have medicinal properties, and so their springs have become the sites of health-resorts such as Marienbad (bad=bath) and Karlsbad.

Near the centre of the eastern side of the Sudetes, south of Breslau in Silesia, is a small coalfield, while a much larger one lies to the east of the southern end of the Sudetes, on the other side of the valley of the upper Oder, in Upper Silesia, and close to the headwaters of the Vistula and Warthe. Just as the Saar coalfield has been desired by both France and Germany, so this Upper Silesian coalfield has been the cause of quarrels between Germany, Poland, and Czecho-Slovakia, for it lies in the region where these three states approach one another.

It will be noticed that the seven coalfields mentioned are all closely connected with the block mountains of Central Europe; the Belgian field with the Ardennes, the Westphalian or Ruhr field with the northern edge of the Rhine massif, the Saar field with the north-western part of the Vosges block, the Saxony field with the Erz Gebirge, the Bohemian field with the central block of the "diamond," and the Silesian fields with its eastern edge. These are the most important coalfields of the continent of Europe, with the exception of one in south Russia, and they are the foundation of much of the wealth and power of this region. Before the war most of these deposits belonged to Germany, and were a chief cause of its growth, and during the war they were the source from which the munitions of the Central Powers were derived.

The Fichtel Gebirge is not only the meeting point of the Bohemian Forest Mountains and the Erz Gebirge, but north-westward from it runs a narrow high block,

bounded by faults, called the Thuringian Forest. Around the Thuringian Forest is a hilly country, very varied in its relief, pleasant in appearance, largely occupied by fertile fields diversified with woods; much of this country is drained by the upper Weser and its tributaries.

Further to the north there is another great block, the Harz Mountains. Its faulted edges stand up boldly above the lowlands; they are clothed with forests and cut up into ravines by the streams which flow rapidly down on all sides. The Harz Mountains, like the Rhine valleys, are visited by many tourists, especially from the German cities. This block, like so many others, has mineral wealth; in the past quite a number of minerals have been obtained, but now only copper and silver are notable. On its north-eastern margin, however, there are very great deposits of salts, both common salt and potassium salts, with which a great chemical industry has been built up.

The Central Uplands, therefore, have forestry on their heights and slopes, agriculture in their valleys, and industries based on mineral deposits on their margins, while trade follows the routes round and through them; consequently they play a very great part in the life of the people of Central Europe.

The Climate of Central Europe.—The prevailing winds of Central Europe come from the west, that is, from the Atlantic Ocean. Hence they have a marked influence upon the temperature, especially in the winter. At this season, the sun has comparatively little influence, for the days are shorter and the sun is lower in the sky than in summer time, but the winds bring warmth from the North Atlantic Drift. This warmth is given to Western Europe first, so that it has a higher temperature in winter than Central Europe, while Eastern Europe, on

the other hand, has a still colder winter. Fig. 3 shows how the temperature changes, on the average, during the year at the places named. The average temperature in

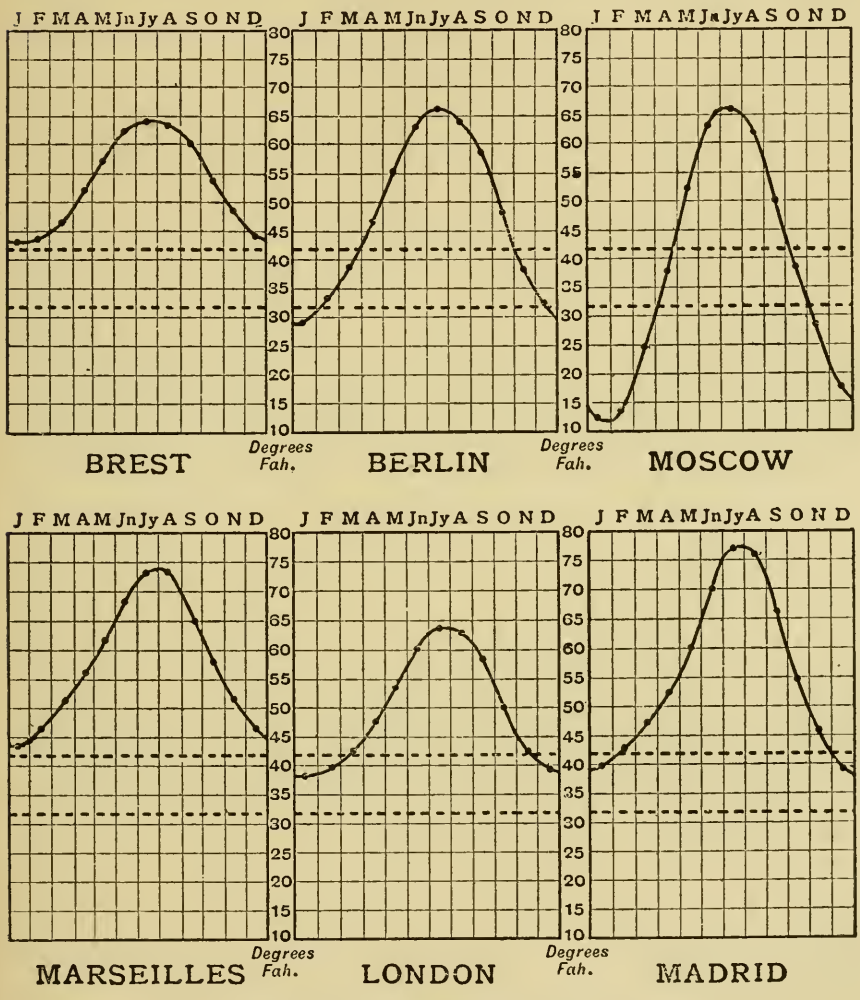

FIG. 3.—Average Temperatures.

January at Brest (north-west France) is about 43° Fah. (11° above freezing point), at Berlin it is about 29° (3° below freezing point), and at Moscow it is about 12° (20° below freezing point).

In the same way, in Western Europe the cold weather soon gives place to the warmer weather of summer, and the winter is relatively short, while in Eastern Europe it takes longer for the summer sun to make itself felt, and the winter cold lasts longer. Thus, in Fig. 3 it is shown that at Berlin there is only a short period during which the average temperature is below the freezing level (shown by the lower dotted line), while at Moscow the temperature curve does not rise above the level of 32° Fah. until the end of March, and falls below it again near the end of October. Thus Central Europe is a transition region, between the west with its short, mild winter, and the east with its long, severe winter. Even in Central Europe itself a difference may be noted between west and east. The North Sea lowlands have an average temperature during January of a little over freezing, while the Baltic lowlands are just below the freezing point. Consequently the rivers and harbours of the west are usually free from ice at mid-winter, while those of the east are frequently frozen. The length of time which the frost lasts increases as one goes eastward, so that the Vistula is normally ice-blocked for nearly three months, from December until February or even until March. Similarly the showers of snow which fall on the western region usually thaw and disappear quite soon, but those which fall on the eastern part may remain unmelted until the spring; then the accumulated mass of snow melts at one time, the water runs into the streams, the rivers overflow and the lower lands are flooded.

The upper dotted lines in the diagrams of Fig. 3 mark a temperature of 42° Fah., the lowest at which the growth of crops can begin. Hence the beginning of the growing season for agriculture comes when the temperature curve rises above this line, *i.e.* about the beginning of April for Berlin, but nearly a month later for

Moscow. Thus crops in Central Europe get much more heat for their growth before midsummer than those of Eastern Europe; they can ripen earlier and are not so exposed to the danger of being killed by the first or earliest frosts of winter.

In summer there is not the same difference between east and west (compare the July temperatures of Brest, Berlin, and Moscow in Fig. 3), for the influence of the

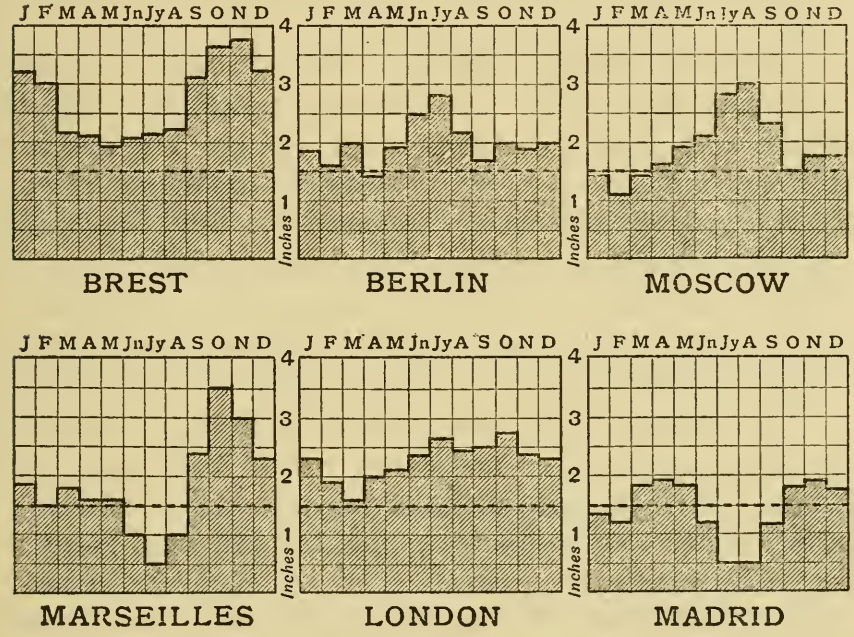

Fig. 4.—Average Rainfall.

wind is not as great as that of the sun. The southern parts have the sun higher in the sky than the northern parts, and are therefore warmer. On the whole, there is about the same temperature all along the southern shores of the North and Baltic Seas (about equal to that of southern England in the summer), but as one goes southward the temperature is greater. Of course, allowance has to be made for the height of a particular

place, so that an Alpine region is colder than the Baltic lowlands, but the plains and valleys of the south are warmer than those of the north. Hence the Hungarian and Rumanian plains have the hottest summers in Central Europe, as they are both low and in the most southerly position ; here the summers may be said to be distinctly hot, and as this part is sufficiently far to the east to have a cold winter, it has the most extreme climate of the central European region, and comes near to the east European type.

There is a similar difference between west and east in regard to rainfall. The average rainfall at Brest, Berlin, and Moscow is shown in Fig. 4. The rainfall at London amounts to about 25 inches in the course of the year, and if the monthly amounts shown to be received at Berlin are added together the annual rainfall there will be found to be not much less. The west of the British Isles is more rainy, and may be compared with Brest. No part of Britain has so little rain as Moscow.

The Atlantic winds bring rain to the west all through the year, and there is no season which lacks rain. In the east, however, the rain comes mainly in the summer ; in the winter there is less precipitation, and what there is comes in the form of snow. This, as explained above, remains unmelted and does not moisten the ground nor supply water to the rivers till the spring. Hence the water supply of Eastern Europe is mainly in spring and summer. In Central Europe the difference is less marked than further east, so that in rainfall as in temperature it may be described as transitional between west and east.

This climate with a winter of medium length and severity, a summer of medium warmth, and a rainfall which is of medium amount, makes possible a great variety of vegetation. Coniferous forests clothe the

heights and deciduous forests, particularly of oak and beech, will grow on the lower lands ; but they have been largely cleared for crops or meadows. The south-eastern plains, with their high summer temperature and little rainfall, are naturally steppe-lands covered only with short grasses which wither in the hot summer.

The cultivated plants include practically all those grown in any part of Europe, except fruits such as oranges and olives, which are found only near the Mediterranean Sea. But in the products, as in the climate, of Central Europe itself a transition is to be noted ; wheat and barley, which need a fairly warm summer, are mainly grown in the north-west ; oats and rye, which can ripen in a shorter summer, are the commoner grains of the north-east ; while maize, which requires the greatest summer heat, is found in the south ; in the central part, near Vienna, all these may grow. Fruits are widespread, and even the vine grows everywhere except on the plains of the north and the higher elevations of the south.

THE NETHERLANDS

We generally call the people of Holland the Dutch, but they call their country the Netherlands and themselves Netherlanders. The name Holland properly applies only to two provinces lying west and south-west of the Zuider Zee as far as the mouths of the Rhine ; North Holland is west of the Zuider Zee and contains Amsterdam, the largest town of the Netherlands ; South Holland lies to the south-west of this and contains the Hague, the capital, and Rotterdam, the greatest port. The Netherlanders are closely akin to the North German peoples, and their language is one of the Teutonic group.

The area of the country is very small, it is about

12,600 square miles, *i.e.* considerably less than half the size of Scotland, but it has a population of nearly seven million people. This works out to an average of nearly 550 persons to the square mile, a density of population only exceeded by Belgium among the states of the continent of Europe, and nearly equal to that of England and Wales.

To a very considerable degree the geography of the country and the occupations of the people are dependent upon the fact that the Netherlands are largely the delta of the Rhine. Practically all the western part of the country was a mass of fens and lakes, liable to flooding by rivers and the sea, and from earliest times till now the people have had to expend labour in building dykes round their lands and in keeping the space within them drained. The first settlements were on knolls (called "pols") rising out of the fens and enclosed by a wall; later, lower parts were surrounded by dykes, and the water in the enclosed areas (called "polders") was pumped out into canals constructed on the top of the dykes; usually the water has to be pumped to other canals running along higher dykes until it is taken into the rivers or the sea. Windmills used to be employed for pumping, but their place is now being taken by steam pumps or pumps worked by electricity produced by steam engines. On the dykes, too, the roads are made, and the traffic helps to press down and consolidate the sandy clay of which they are constructed, for stone is very scarce in this country. The polders have been gradually extended till now most of the country is drained, and there is now a scheme for building a dyke across the narrow part of the Zuider Zee and reclaiming its southern portion.

A constant watch has to be kept upon the sea dykes and those which border the great rivers; when the Rhine is in flood sentinels are placed at weak places.

The last breaking of the Rhine dyke was over 150 years ago ; but as late as 1916 a great storm destroyed the dykes by the Zuider Zee and 500 square miles of country were devastated. As an additional protection against the force of the storm waves, the dunes are now planted with shrubs to hold the sand together, and behind them the dykes are raised and strengthened by a facing of concrete.

In the sandy strip of country immediately behind the dunes, especially that running north and south of Haarlem, flowers and fruit are largely grown. Over 300 years ago Dutch traders brought tulips and hyacinths from the East, and the growing of these flowers and the sale of the bulbs then began. Since that time the people have steadily acquired skill in this work and extended their nursery gardens till now great expanses of country are brilliant with the flowers in the spring, and immense quantities of bulbs are exported to other countries. Similarly, many other kinds of flowers, climbing plants and evergreens are grown for export, and even " forced " in hot houses, so that blossoms are sent to New York throughout the winter. Fruit occupies still more ground than flowers, and near the Hague grapes and peaches are grown in glass houses and exported to America. Great quantities of vegetables are also grown, both for home use and for export.

Cattle-rearing is very important in the region below sea-level, which in most parts is too damp for cultivation, even when drained. The main object of the farmers is to obtain butter and cheese, which are sent largely to London and to the German manufacturing districts. Most of the dairies are owned by co-operative societies, and the selling of farming produce in general is not carried on by the farmers, but by officers of a co-operative marketing association.

The land above sea-level but below river-level is

mainly between, and on either side of, the Rhine and Maas. Here there are "grass districts," hundreds of miles in extent, absolutely flat except for the river dykes and canal dykes, with few houses or villages, but everywhere the black-and-white cattle. In other parts of these river lands, crops are grown; corn, sugar-beet, potatoes, flax, beans, and onions.

The lands beneath sea-level or river-level make up the greater part of the area of the country, and much of the remainder consists of the gravelly regions such as the Kempenland of the south-west and the Geest of the north-east, which may rise to about 150 feet above sea-level. The soil is, of course, very poor, and quite a large part of these formations is unused or covered with trees. The farmers of these lands grow grass on the lower and rye on the higher levels, the rye as food for pigs, and both rye and grass for cattle; thus the farmers obtain pork and butter, which are the main exports of the gravelly areas.

The "high fens" lying upon the gravelly plateaus are quite useless in their natural state, but in recent years "fen colonies" have been established. The surface of the fen is cut into trenches which allow much of the water to drain away; then the peat is cut out and dried. It is used for fuel, with the exception of one layer which is put back on the sandy subsoil and ploughed into it, the mixture of peat and sand forming a good soil. The farmers in the fen colonies grow potatoes, rye, oats, and beet. Each of these crops is used in a simple form of manufacture; from the potatoes, starch is obtained; from the stalks of the rye and oats, strawboard or millboard is made; from the beets, sugar is refined.

The starch and strawboard are exported, but their value is far exceeded by that of the butter and cheese, the cattle, and the flowers and fruit which are sent abroad from the lower lands. The corn crops are not sufficient

for the needs of the population, and wheat and maize are imported.

The situation of the Netherlands at the mouth of the Rhine has given great opportunities for trade, and the industry of the people and the enterprise of the merchants used those opportunities so fully that 300 years ago they had nearly all the carrying trade of the world in their hands. Fleets numbering four or five hundred vessels came twice a year from the Baltic lands, other similar fleets twice a year from the Mediterranean region, and smaller ones traded with the Indies and other newly discovered lands. Indeed, the Netherlanders played an important part in discovery, as the old name for Australia, New Holland, and the present name of New Zealand bear witness. They acquired many colonies, but most of them have been lost and the Dutch East Indies are the most important of those which remain. In those days the Netherlands were not only a centre of trade, but also industries were carried on in an advanced manner, and the people were famous for their knowledge and their progress in arts, such as the printing of books and painting.

A great decline, however, came in the eighteenth century as a result of a series of wars with England. The Netherlanders were better in the arts of peace than in making war, and at the end of the eighteenth century, hundreds of their merchant ships were destroyed or captured, most of their colonies taken away, and the country reduced to want. Moreover, the Netherlands had earlier been the scene of struggles between the people, who demanded independence, and princes of Central or Western Europe who claimed the country as their possession. In the nineteenth century, after the Napoleonic Wars, the Netherlanders gained complete independence, and a long period of peace enabled them

slowly to regain their prosperity and once more to build up their commerce. They are, however, no longer the first nation in respect of the number of ships they own, for other countries have grown greater than they, but a larger proportion of the people in the Netherlands get their living by trade than is the case in any other country of the continent.

On the one side of them is the ocean; on the other is the Maas, which runs through the Belgian coalfield, and the Rhine, which has the most productive parts of Germany on its banks and also leads to the Mediterranean region. The Netherlanders have dredged and straightened the rivers, and in parts cut entirely new channels for them, and the largest ocean liners can now use Rotterdam, one of the busiest ports of the world, and a town of 500,000 inhabitants. The ocean liners cannot go above Rotterdam, so the goods have to be loaded or unloaded there, and the traffic above the port is carried on in smaller vessels, though ships of medium size, able to cross the North Sea and trade with England, can go up the Rhine as far as Cologne. In addition, there are the larger river craft which ply between the German river ports and Rotterdam (of which about ten are needed to transport the cargo of a great ocean liner), and great numbers of barges and small boats. Much of the traffic in the Netherlands is carried on by boats and barges on the canals, which are far more used than the few and neglected canals of Britain.

At present, by far the greatest amount of trade is carried on at Rotterdam, but in the past Amsterdam was more important. It is situated on an inlet of the Zuider Zee, which gave shelter to the small vessels of past centuries, and was deep enough to accommodate them. It is too shallow, however, for modern ships, and a canal was cut from the entrance to the Zuider Zee along the

province of North Holland, but this "North Holland Canal" soon became out of date, and a much broader and deeper one was cut almost directly westward, the "North Sea Canal." The trade now carried on at Amsterdam is largely connected with the goods produced or consumed in the Netherlands and is not to any large extent through-traffic like that of Rotterdam; but in past times Amsterdam was the centre to which the great fleets came from overseas. The city is the largest in the Netherlands (over 600,000 inhabitants), partly because it retains many industries which grew up when it was the chief port, and partly because it is a residential city in which well-to-do people choose to live. The Hague is also a residential city and the seat of the Government; it has less than 400,000 inhabitants.

The manufacturing industries of Holland are numerous, and although none is very large, the total is considerable. Many of them arose for some particular reason in earlier times when coal and iron were not necessary, and they still manage to exist even though these minerals are lacking in the Netherlands. A very small amount of coal is found in the extreme south, where a strip of territory near Maastricht is thrust like a peninsula between Germany and Belgium and reaches the coal-bearing edge of the Ardennes massif. Coal and iron and steel goods are imported, and so are many of the manufactured goods required by the people, but some textiles are manufactured, namely cotton, woollen and linen goods.

The cotton industry began in the eighteenth century, and is chiefly carried on at Utrecht. The making of earthenware is another ancient industry, and the small town Delft, near the Hague, has given its name to Delftware. The trade in tobacco and the making of cigars originated in the importing of tobacco-leaf from the Dutch East Indies, and the sugar obtained from the sugar-canes

of the same colonies led to the refining and selling of sugar. When, later, sugar was obtained from beet, the beet-sugar industry was added to that of cane-sugar. The precious stones brought from the East to Amsterdam were the cause of a settlement of jewellers and the growth of a diamond-cutting industry which still continue in Amsterdam. The making of paper, too, dates back far ; it arose when the Netherlanders were pioneers in the making of printed books and it still goes on, the materials being rags, wood, straw, and waste paper, mostly imported. Again, the distilling of spirits is an old industry, now using rye, barley, and the molasses obtained as a by-product in sugar refining.

These industries afford good examples of " geographical inertia," that is, the tendency of work to remain even after the original causes have disappeared. They also show the skill and industry which have enabled the Netherlanders to compete with countries which have greater resources for manufacturing than themselves. Only by such qualities in its inhabitants could the unhealthy and frequently flooded marshes of a delta-land have been transformed into one of the most densely populated regions of the continent.

GERMANY

The Great War made very important changes in the German State and in the conditions of the German people. Before the war the German Empire consisted of a number of states which had been in some kind of alliance for centuries, and in 1870 they joined together in a war with France under the leadership of Prussia, the largest and strongest of the German states. After the victory over France, they combined to form one Empire, and the

King of Prussia became also the German Emperor ; to this Empire was added the provinces of Alsace and Lorraine, taken from France in spite of the protests of their inhabitants.

During the centuries before the formation of the German Empire, the German peoples had developed from a mingling of two racial stocks : the people of the Northern race living originally in the forest clearings of the northern plains, and the people of the Alpine race living in the valleys of the southern mountains ; these peoples met in the central region of uplands and valleys, and here in this country so divided up by nature small communities grew up with little permanent union between them. In this region of the Central Uplands, with its varied resources of agriculture, mining, and forest life, the German people (who included the Austrians), pursued many arts and crafts, and carried on trade ; they were hard-working and successful folk who built famous cities, and produced great thinkers, poets, and musicians. The greatest musicians of the world have come from this region, among whom may be named Bach, Beethoven, Brahms, Mendelssohn, Mozart, Schubert, Schumann, and Wagner.

In the northern plains the people were less cultivated but equally energetic, and here the great military power of Prussia grew up, with its seat at the junction of the natural routes at Berlin. Because of its success in war, Prussia became the leader of the more peaceful states of the south, and after the formation of the German Empire, the whole country was involved in the " militarism " of Prussia.

An ambition to make the German Empire a great state which could not only protect itself, but could impose its will upon others, possessed the rulers of the country, and they had such power that the people who

thought differently from them had very little opportunity even of expressing their opinions. The government was largely under the personal power of the Emperor, or Kaiser, and the Prussian nobles and soldiers formed an important part of the ruling class ; the government was by no means democratic.

The military power of a nation depends partly upon a strong organisation (such as the Prussian government formed in Germany), and partly upon the numbers of men and the amount of material which the country can supply. In this case, there were great stores of coal by which manufactures were carried on, and from which trade resulted ; these industries allowed the growth of a great population. From this population an enormous conscript army was formed, and the factories of the great towns provided the means of equipping this army.

While in Germany itself mining, manufacturing, and trading were increasing, and the population and power of the country were growing, over-sea colonies were obtained, particularly in Africa.

There were a number of reasons why the interests and desires of Austria-Hungary and Germany clashed with those of the other states of Europe, but the time has not yet come when the causes of the Great War can be completely examined. The final results of the war are equally uncertain as yet, but several of them must be considered.

In the first place, the people of Germany, heavily stricken by years of fighting and privation, overthrew their rulers and established a Republic. The common people had at last an opportunity of asserting themselves ; the pendulum of power swung in the opposite direction : the first President of the Republic had been a saddler, and in the new Parliament the Socialists had a great majority. The Prussians no longer so completely

dominated the other states, and although many of the old Government officials had to remain (for there were no others trained to take their place) the political spirit was modified.

By the treaty of peace signed at Versailles in June, 1919, great alterations were made in the territory belonging to Germany. All the overseas colonies were given up, and passed into the rule of the victors, Britain, France, Belgium, or Japan, under mandates and the supervision of the League of Nations. Alsace and Lorraine were restored to France, and many Germans who had settled in these provinces since 1870 thereby became French subjects.

Denmark claimed that the district of Slesvig, in the southern part of the Danish peninsula, which was taken by Prussia in 1864, should be returned, but on the other hand many of the people in this region were German. It was therefore decided that a plebiscite, that is, a vote of all the people of the district, should be taken to decide to which state they would prefer to belong. The district was divided into two zones, a northern one and a southern one, which voted separately ; in the northern zone there was a Danish majority and in the southern one a German majority. The northern part of the region, therefore, went to Denmark, the southern part remained in Germany.

Poland claimed large areas in the east, for here Prussia had conquered Polish lands in past centuries. The settlement concerned four different districts. Firstly, a strip of territory on the lower course of the Vistula below Thorn (near Bromberg), together with the region south of this, around Posen, were given to Poland, for they were inhabited by a majority of Poles (see the map in Fig. 8). Danzig was made into a "Free City," as described in a later section.

Secondly, east of the lower Vistula is a region most

of which was known as East Prussia ; the population of the north part of this region around Königsberg, was admittedly Prussian, but there were many Poles in the southern part, so that a plebiscite was held here. The voting was very largely in favour of Germany, and so all this area east of the lower Vistula remained to Germany, although it is cut off from the mother country by the Polish strip of country (the Polish " corridor ") along the course of the river.

Thirdly, a small strip of country north of the lower course of the Niemen (or Memel) including the port of Memel, on the extreme north-eastern border of Germany, was taken with the intention of giving it to the new state of Lithuania, for the people were in part Lithuanians, and the new state had no other port.

Fourthly, the possession of the upper part of the province of Silesia, on both sides of the Oder above Oppeln, was to be settled by a plebiscite. The voting showed a German majority in the region as a whole, but there were Polish majorities in considerable areas in the industrial and coal-mining region of the south-east of Upper Silesia.

After the transfers of territory the area of Germany was about half as large again as the British Isles, and its population was about 56 millions.

Because of the damage done to other states during the Great War, Germany was called upon to make reparation by paying money and giving up other forms of wealth, *e.g.* coal, railway engines and trucks, ships, and cattle. The coal-mines of north-eastern France had been so damaged that for some years much less coal could be got than was obtained before the war ; Germany was required to send into France for a number of years an amount of coal sufficient to make up the difference, and, moreover, the whole of the coal in the Saar coalfield

was to be ceded to France. As the people living and working in this coalfield were German, the district was placed under the government of a Commission appointed by the League of Nations, composed of five members, one being an inhabitant of the region, one from France, and three from other countries. This international Commission is to govern the country for fifteen years, while France is to have the coal. In 1934, the inhabitants are to vote for one of three things : a continuation of this international control, union with France, or re-union with Germany. If the district, or a part of it, decides for re-union with Germany, that country will have to buy back the mines from France, or the district concerned will pass finally to France. Added to this loss of coal was the loss of iron ore, for three-quarters of the German production came from the Mosel valley in the ceded region of Alsace-Lorraine.

Germany also had to give up practically all her shipping, mercantile as well as naval, to the Allied Powers, in reparation for the sinking of Allied ships by submarines. This put an end, for a long time, to the maritime trade of Germany, which had grown very great, and it thereby reduced the importance of the German ports, such as Hamburg and Bremen, which had been the headquarters of the shipping lines. The internal trade of the country was similarly hindered by the loss of a large part of the equipment of the railways. These losses were particularly serious as they came after the exhaustion of more than four years of war.

When it is remembered how the industries of Germany were based upon the coal and iron deposits, it will be realised how grave are the effects of the war and the reparations upon the economic life of the country. Apart from the coalfields of the Saar and Upper Silesia, the only noteworthy ones remaining to Germany are the

small one on the north slope of the Erz Gebirge and the large one of the Ruhr valley, and these cannot supply the needs of such extensive manufactures and trade as those which supported the population of Germany. Consequently, for many years the greater part of the people must be much worse off than they were before the war.

The Ruhr coalfield is by far the greatest manufacturing region. Here are great centres of coal-mining and of the manufacture of iron and steel goods; the Krupp works are at Essen, and near by are Bochum and Dortmund, and the river port on the Rhine, Duisberg, while on the west side of the river is Krefeld, famous for its silk and velvet industries. A few miles to the south are the textile and chemical manufacturing cities of Barmen and Elberfeld, and their river-port Düsseldorf. To the south-west is Aachen (Aix-la-Chapelle), which gets coal from the small extension of the Ardenne coalfield and manufactures woollen goods.

On the coalfield of Saxony are Chemnitz, which manufactures cotton goods and machinery, Zwickau, which makes porcelain, and Dresden, a river-port on the Elbe, though "Dresden China" comes from Meissen, a little distance down the river. Leipzig, in the lower country to the north-west of the coalfield, has much trade and various industries, including the making of pianos and other musical instruments.

In Silesia is a group of manufacturing towns in which woollen goods particularly are made: Breslau, Görlitz, and Leignitz.

The capitals of the several states have attracted to themselves various industries and considerable trade; and they have therefore become some of the largest cities of Germany. Berlin, the capital both of the state of Prussia and of the German Republic, is the second

largest city on the continent; with its suburb, Charlottenburg, it had about 2½ million inhabitants before the war, but this number has been reduced. Bavaria is the second largest state, and its capital, Munich (München) in the centre of the Bavarian plateau, has half a million people; it is the greatest centre of beer-brewing in the world, and both it and Dresden, the capital of Saxony and a city of equal size, have fine buildings and famous collections of pictures. Stuttgart, close to the Neckar, and Karlsruhe, by the Rhine, are the capitals of the two states which come next in importance, namely Württemberg and Baden.

The position of Berlin, as the centre of the North German waterways, is rivalled by that of Hamburg, situated at the mouth of the Elbe, where these waterways lead out to the North Sea. But Hamburg is not such a railway centre as Berlin, for the railway routes to all parts of the country radiate from the capital. Hamburg was, nevertheless, only second to Berlin in size, and had nearly a million inhabitants. After the war, however, when the ships were given up, its docks were practically deserted for a long time, and trade slowly began again when other countries (particularly America) made arrangements for their shipping services to co-operate with German merchants and use the port. Yet with the general decrease of German manufactures and commerce it will be long before Hamburg recovers its former importance.

Similarly the ports at the mouths of the other German rivers, Bremen, Stettin, Königsberg, and Emden, with Kiel at the Baltic entrance to the canal communicating with the North Sea, for the time at least lost much of their trade. The river-ports of the Rhine are large towns; most important among them is Cologne (Köln) at the head of navigation for sea-going vessels, and where

the road and railway route from Paris to Berlin, skirting the Rhine Massif, crosses the river. Where the Main enters the Rhine is situated Mainz, and further up the Main is Frankfurt-on-Main, where the routes from the Rhine rift valley leave it for the centre and north of Germany. At the junction of the Neckar and the Rhine is Mannheim.

The navigation of the Rhine has been put under the control of an international commission, and as small boats can reach Basel, Switzerland, France, and the Netherlands, besides Germany, are concerned in the traffic which uses the river. Similarly, the Elbe which is navigable into Czecho-Slovakia, the Oder which is navigable practically throughout its course, and the Niemen as far up as Grodno, were declared international, and the supervision of navigation was entrusted to the League of Nations so that people of all countries may use the rivers on equal terms.

Although Germany developed greatly on account of her mining, manufacturing, and commerce, yet her agriculture is very important. The glaciated region of the northern plains with a moderate summer temperature is the least fertile region, and oats and rye are its chief crops, together with potatoes and, in the north-east, beet. The potatoes are partly grown for food, partly for distilling alcohol, and the beet is mainly used for sugar but also for distilling. Towards the south the soils are better and the summers are warmer, and hence more wheat and barley are grown than rye and oats. The most fertile parts are the Rift Valley of the Rhine, and the other river valleys of the south-west. Here the vine is grown on the sunny hillsides and famous wines are made. Tobacco is obtained in the northern part of the Rift Valley, and the production of hops aids the beer-making of Bavaria. Fruit trees of many kinds are widely cultivated.

Cattle are everywhere kept, both for milk and dairy produce and also for meat, and the number of pigs has greatly increased, part of their food coming from the potatoes and the beet of the poorer northern plains.

The forests of Germany are well managed, and the supply of timber is an important resource, especially in the south-west; here, too, is the famous industry of making wooden clocks and toys, still largely carried on in the homes of the peasants.

The Germans improved their agriculture extraordinarily in the last generation; for example, in about twenty-five years the average yield of wheat increased from twenty-two to thirty-two bushels per acre, and an official report of the British Board of Agriculture pointed out (in 1916) that whereas, on the average, from a hundred acres of cultivated land the British farmer produced food for between forty-five and fifty persons, the German farmer produced food for between seventy and seventy-five persons; as the natural conditions of Germany taken as a whole are not markedly better than those of Britain, this may be considered as a good illustration of the scientific and careful industry which is one of the better characteristics of the German people.

POLAND

To a considerable extent Poland consists of the basin of the Vistula, although its borders are drained by rivers which flow through neighbouring countries, for example, the Netze and Warthe on the west, and the Niemen and Dniester on the east. The absence of natural boundaries on the east and west of Poland has been for centuries the cause of political disputes and changes. The Polish people have tended to spread out beyond the

Vistula basin, and their great neighbours have similarly invaded Polish territory. In the sixteenth century, Poland had acquired so much of the neighbouring lands that it extended from the Baltic Sea to the Black Sea, and thus resembled the Austria-Hungary of recent times in holding sway over subject peoples. The Polish nation consisted of two classes, the great nobles and the poor peasants, and the Polish nobles became the landowners of the conquered lands, especially in Lithuania, in White Russia, and in the Ukraine country of East Galicia * and south-west Russia.

The growth of Prussia and Russia led to the loss, first of these outer lands, where Polish landowners remained though other states conquered the countries, and later of the Vistula basin itself, where Poles formed the population, and for over one hundred years Poland has been divided among Russia, which took most of the country, Prussia, which took the west, and Austria, which took the Galician region (see the map in Fig. 6).

After the collapse of the Russian power in the Great War, Poland obtained its independence, but the drawing of a boundary was a very difficult matter, for besides the earlier migration of Polish landowners to the east and south, there has been a settlement of Germans in the western Polish region. It has been explained above how the frontier between Germany and Poland was determined, but on the eastern side there was even more difficulty. The Polish landowners in Lithuania, White Russia, Eastern Galicia, and the Ukraine of south-west Russia knew that if these regions became independent the native peasants would take away their lands and either drive them out or kill them, so they wanted Poland

* Galicia is the plateau region of the Carpathian Foreland, which slopes down from the North Carpathians towards the north-east and is drained by the upper waters of the Vistula and Dniester.

once more to rule over these regions. Also in Poland many people wanted to make their state as large and powerful as possible. Hence Poland tried to extend to the east, and there was much fighting with the various peoples concerned and with the Bolshevik government of Russia in 1919–20.

This warfare followed that of the Great War in which German and Russian armies fought over and devastated the country, and so the population were reduced to terrible conditions. Agriculture suffered greatly. Mining was reduced, and manufactures and trade (except as regards materials of war) almost came to an end ; starvation faced many of the people. Added to this, there were the ravages of disease, and typhus fever swept over Poland and a considerable part of Eastern Europe, so that in some parts more than half the people were affected, and the disease seemed likely to spread to the western countries. Relief was sent by other peoples in the form of food, clothing, and medical help, and the League of Nations undertook the task of preventing the spread of the disease.

With the uncertainty of the boundaries of Poland, and the miserable situation in the country itself, it is not possible to say what the population and area of the country are, but it appears that Poland is about the size of Great Britain, and its inhabitants number more than twenty millions. The people are mainly Poles, but within its borders there are Germans, Lithuanians and White Russians, and in Eastern Galicia the greater part of the people are Ukrainians, here known as Ruthenians (see the map in Fig. 8).

Moreover, there are a very large number of Jews, especially in Central Poland and in the towns ; it is estimated that half the Jews in the whole world live in Poland. The Jews were encouraged to settle in this

country some centuries ago, at a time when they were persecuted in other lands. This was largely because the Polish nobles wished them to carry on trade, for in addition to the nobles there were at that time only the ignorant peasants who worked on the land. In recent times, a town population of Poles has grown up who compete with the Jews in commerce and industries, and mainly on this account there is great ill-feeling between Poles and Jews.

The Jews live apart, and in Central Poland they wear a different dress, marked by a black cap and a long black cloak, eat different food, speak a different language, and are educated in different schools.

Differences of religion separate the Poles not only from the Jews, but also from the other peoples who live both within and without the borders of Poland. The Poles are strong Roman Catholics, the Germans on the western borders are mainly Protestants, and the Russians on the east belong to the Greek Church. These differences, added to those of race, language, and nationality, make the problem of the " minority populations " in Poland a very serious one. If the government of Poland does not succeed in making these minority peoples into willing citizens there will be a great danger of dissensions and outbreaks within the country, and a weakening of the nation if it has to face a foreign enemy. Only with the free consent and co-operation of the great mass of the people can the government of any country be successful.

Serious social problems also have to be solved, if the people of Poland are to be happy and prosperous. The peasants are not well off, judged by comparison with the farmers and agricultural labourers of Britain, while in the factories of the towns, the conditions of work, the hours and wages, are far worse than in western Europe ;

still worse is the state of the home industries and the small workshops (*e.g.* in the clothing trades) in which many of the poorer Jews live miserable lives. Peace and security, easy import of materials for carrying on the work, and a government which can aid in establishing and insisting upon decent conditions of life, are the great needs of the industrial population.

Four different regions are to be distinguished in Poland. (1) The southern mountain border. This is a narrow region formed by the forested ridges of the Carpathians.

(2) The southern plateaus, including the Carpathian Foreland. The higher parts are broad uplands divided by river valleys ; among these valleys, those of the Vistula and Dniester are the largest and broadest, often flooded in spring by the melted snows, and in summer by the rain from the mountains. This country is partly agricultural, with the same products as the central plains dealt with in the next paragraph, but to a considerable extent it is still wooded, with pines and firs on the higher, and beech and oak on the lower lands.

In this region is the mineral wealth of the country ; between the headstreams of the Vistula, Warthe, and Oder is the large coalfield ; in the basin of the upper Vistula between Cracow and Tarnow are famous salt-mines ; to the south-east, near the headstreams of the Dniester, is a line of oil wells of great importance, and in one part of this district solid petroleum wax is found.

Metal industries have grown up in the towns of the Upper Silesian coalfield, where zinc is obtained, and also in the Cracow district, and there are some smaller manufactures of chemical and timber products in the mineral belt of country. At a meeting place of routes in the eastern part of the plateau country is the commercial city of Lemburg (Lwow), in which the people are mainly

Poles, although the peasants of East Galicia are mainly Ruthenians.

(3) The central plains. These were affected by the earliest extension of the ice, and in the east the great Pripet swamp still bears clear witness to its action, but in the west the region is better drained and more fertile. Part of the country is still wooded, and the valleys of the Vistula and Bug are marshy, but most of the country is used either for pasture or agriculture, producing corn crops (rye and oats being much more important than wheat and barley), potatoes which give the raw material for distilling, and beets which give the raw material for making sugar. The character of the agriculture differs in the regions which used to be under Prussia and Russia respectively. In the Prussian country the work was done comparatively thoroughly ; in the Russian part it was very poorly carried on, and there is great room for improvement.

In this central region there has been a development of manufactures, aided by coal from the Upper Silesian region and some iron-mining on the northern edge of the plateau region. The greatest industries are the making of cotton and woollen goods, Lodz being the chief centre ; some iron and steel works and sugar refineries are carried on at Warsaw. Warsaw has 800,000 inhabitants ; its situation on the one great river and in the centre of the state makes it the commercial, as well as the political, capital of Poland.

(4) The Vistula " corridor." This consists largely of the region drained by the Vistula where it breaks through the glacial deposits of the Baltic Heights. The economic importance of the district to Poland is perhaps as much commercial as agricultural, for it is naturally a poor country, but by road, railway, and river it gives an outlet to the sea.

Danzig.—Although when the new state of Poland was formed the " corridor " had a Polish population, and the Vistula route was very important for the trade of Poland, yet the port of Danzig was a German city, in its buildings, commercial organisations, city government, and population. It was, therefore, arranged that as the trade of Poland would pass through it, it should belong neither to Poland nor Germany, but should become the " Free City of Danzig," under the protection of the League of Nations. It has its own government for its local affairs, but Poland controls and manages the railways, the river and the docks, the trade, and the relations between Danzig and foreign states. The area extends beyond the city proper to include a considerable part of the Vistula delta, and amounts to about 600 square miles ; its population is about 250,000 persons.

Before the war, Danzig carried on trade for the region behind, and in addition made armaments and built ships ; but after the war the latter industries disappeared, and its trade suffered because of the economic disorganisation and poverty of Poland. Hence there was great suffering among the population, and its prosperity must wait upon that of Poland ; in local government it is free, but in economic matters and the consequent well-being of its inhabitants Danzig is necessarily dependent upon Poland. Its exports are mainly of grain, timber, and sugar, and its chief imports are manufactured goods.

CENTRAL EUROPE—SOUTHERN SECTION

This region includes the Alps and Carpathian Mountains; two parts of a great series of highlands which run also through the Mediterranean region. On the western side the Alps are linked up clearly with the Appennines, and the Appennines with the mountains of Sicily. After a break these are continued westward in those of north-western Africa, and the line then curves northward across the Strait of Gibraltar into the south of Spain, where it ends in the region of the Sierra Nevada.

On the eastern side, the Alps broaden, and their north-eastern end near Vienna is connected with the western chains of the Carpathian system, while their south-eastern end near Trieste joins on to the north-western mountains of the Balkan Peninsula. The Carpathians themselves are continued in the Transylvanian Alps, which are divided only by the narrow gorge of the Danube from the Balkan Mountains properly so called. These mountain systems describe great curves, within which are relatively low hollows. In some cases these hollows are so deep that they are covered by water and form parts of the Mediterranean Sea, but in other cases they are above sea-level and have been filled in with soft deposits largely brought down by streams from the surrounding mountains, *e.g.* the plains of Lombardy, Hungary, and Rumania.

The mountains of Northern Europe and the uplands of Central Europe described in previous sections are composed of hard rock in the form of blocks bounded by faults, but to a considerable extent these mountains of the south are different in their structure. The southern chains consist in large part of softer materials : limestones,

sandstones, and clays formed as layers of sediment in seas of bygone ages which existed where now the mountains are found. Rocks which were deposited as sediments in the water, and afterwards raised up by forces within the Earth's crust so that they come out of the sea and form solid ground, are known as sedimentary rocks.

In the same period of the Earth's history when the more northerly blocks were cracked and dislocated, these southern regions were disturbed so that the sedimentary rocks, with other harder ones among them, were bent, ridged up, pressed together and even piled one upon another. The mountains formed in this way are called " fold mountains," to distinguish them from the " block mountains."

These fold mountains are frequently of softer material than the block mountains, and so they are worn more quickly by the action of weather and streams, but on the other hand they were raised to much greater heights by the internal pressures which produced them. They have been slowly cut into by rivers, and now deep valleys separate high ridges and peaks which show to what altitudes the layers were raised. In course of time the valleys will become deeper and wider, and the ridges and peaks will be worn down ; but the mountains of Southern Europe were formed at a relatively late period of the Earth's wondrously long history, and still remain very high. Indeed, the Italian volcanoes and earthquakes show that the internal forces are still active, and the period of disturbance has continued in a mild form even to the present time. The great upheavals of the fold mountain systems of Southern Europe took place millions of years ago, long before the Ice Age, but many more millions of years must elapse before they are worn down and cease to be high mountains.

As the materials of which they are formed frequently

differ from one another in the power of resisting the wearing of weather and streams, the mountains are cut up into many different forms, giving a great diversity to the landscape. Fold mountains are therefore not only higher but have a more interesting appearance, particularly in their higher parts, than the flat-topped block mountains. The greater height of the southern mountains as compared with the more northerly ones raises them into the very cold regions of the upper air where, in spite of the more southerly latitude, their highest parts are covered with perpetual ice and snow. From these masses of ice and snow, glaciers work down the valleys and add to the variety of the scenery, while vegetation changes from the cultivated plants of the lowest parts, to masses of dark pine forests at higher levels, and above that are the grassy lands, snow-covered in winter, but bright with many blossoms when the snow has melted.

Fold mountains are therefore generally more beautiful than block mountains, but as a rule they lack the mineral resources of the latter and consequently the margins of the Southern Mountains have not the industrial character of the margins of the Central Uplands. The surrounding hollows filled with soft soil are fertile agricultural regions for the most part. The mountains are barriers, and roads are made through valleys and passes, so that trading towns grow up at the opening of the more important valleys into the lower lands on either side of the highland masses.

On the whole, therefore, these high mountain regions may attract visitors by their beauty, but they offer a living to a relatively small number of people by agricultural or pastoral work, while the surrounding basins have agriculture and trade, but little mining or manufacturing as compared with the block mountains further north. There are exceptions to this rule, particularly where minerals

are found, and these exceptions will be noted when the regions are described.

The Alps and the Carpathians form the two great fold mountain systems of Central Europe, but to these must be added the Jura mountains, an offshoot of the Alpine system. They consist largely of parallel ridges of folded limestones, mainly pasture lands or bearing forests. They are separated from the Alps at their south-west end only by the narrow valley of the Rhone below Lake Geneva, but farther to the north-east there lies between the two mountain systems the western part of the Alpine Foreland, which forms the plateau portion of Switzerland.

The Alps.—These are the highest and most massive of the fold mountains of Europe, with the exception of the Caucasus Range. In the valleys are situated the small towns and villages, and also the roads which connect the populated areas on either side of the mountain barriers. Hence it is more useful to know the chief valleys and the passes connecting them than the high peaks, and Fig. 5 shows their situation.

As the Alps make a great curve around the plain of northern Italy, the routes may be considered as going out from this plain as a centre. From Turin, where the Dora Riparia joins the River Po, a route goes westward up the Dora Riparia valley, and the railway which follows this route tunnels through the water-parting by the Mount Cenis tunnel into the valley of the Arc tributary of the Isère River, thence easily reaching the Rhone Valley.

North of Turin the Dora Baltea offers another route as far as the town of Aosta, where it divides, a northern branch going by the Great St. Bernard pass to the Upper Rhone, and another going to the west by the Little

St. Bernard Pass to the Isère ; these routes have carriage roads but not railways.

From Milan several routes diverge. One railway goes along the west side of Lake Maggiore up the Toce Valley and by the Simplon Tunnel into the Upper Rhone Valley, whence another long tunnel is necessary to cross the Bernese Oberland to Bern, while an easier route follows the Rhone Valley westward to Geneva. Another railway goes along the east side of Lake Maggiore up the Ticino valley and by the St. Gotthard tunnel to the valley of the Reuss, which drains Lake Lucerne and leads to northern Switzerland and the Rhine Valley. A third route has no railway through it, although it is direct and has had great importance in the past ; it leads northward by the east shore of Lake Como across the Splügen Pass to the Upper Rhine.

The next important crossing goes from Verona up the Adige Valley past Trent ; at Bozen it follows the valley of the Isarco (or Eisack) tributary of the Adige, and from the head of this valley crosses by the Brenner Pass to the valley of the Inn at Innsbruck. From Innsbruck routes go westward up the Inn Valley and thence by the Arlberg tunnel to the Rhine above Lake Constance, and eastward down the Inn Valley to Munich.

The last Italian centre from which the Alps may be crossed is Trieste. A winding railway route leads across the southern Alpine ranges to the valley of the Drave ; here there is a low basin-like hollow in which the town of Klagenfurt is situated. From the Klagenfurt hollow a railway goes westward up the Drave valley, and past the headwaters of this stream it follows the Rienz, which flows westward along a continuation of the same valley into the Isarco. From Klagenfurt the same line is continued eastward down the Drave valley and so into the plain of Hungary. The line reaching the Klagenfurt

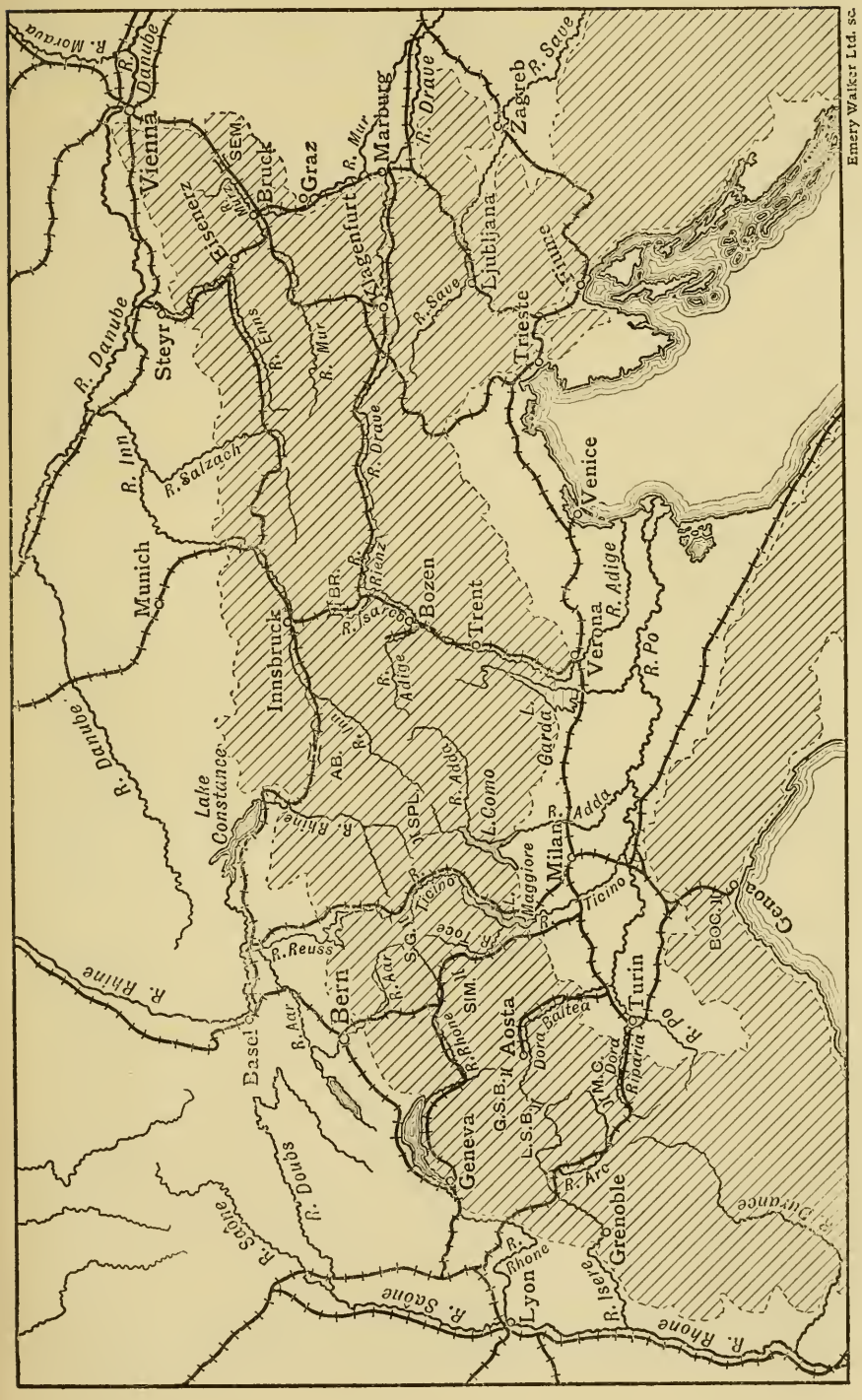

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FIG. 5.—Alpine Routes. The shaded area represents highlands. The names of passes are abbreviated.

hollow from Trieste is continued northward across the mountains to the valley of the Mur, which it follows eastward to the town of Bruck.

Although Bruck is a small town, it is an important route-centre. Here the river Mur turns sharply, and, followed by a railway, runs southward past Graz to join the Drave in the Hungarian plain. At Bruck, too, a small tributary of the Mur called the Mürz joins the larger river, and the railway from the Klagenfurt depression continues north-eastward up the Mürz Valley and across the Semmering Pass to Vienna. Finally, north-westward from Bruck a line goes past Eisenerz into the valley of the Enns and up this valley into that of the Salzach and thence to the Inn.

The last-mentioned route is worth special notice, for it runs from end to end of Austria from Vienna on the east, across the Semmering Pass through the mountainous country by an almost continuous line of valleys to Switzerland.

The south-eastern part of the Alps merges into the north-western part of the Balkan Highlands sometimes called the Illyrian Alps. Two railways cross this region from the Adriatic port Fiume; one goes northward, crossing the Save valley at Ljubljana (Laibach) and the Drave at Marburg, finally reaching Vienna via Graz and Bruck. The other route from Fiume goes at first eastward crossing the Save at Zagreb (Agram), and then north-eastward across the Hungarian Plain to Budapest. In the days when Austria-Hungary was a great power Trieste and Fiume were its only ports. Trieste took most of the trade which came from Vienna and Austria to the Mediterranean, and Fiume took most of the trade from Budapest and Hungary.

Of the towns mentioned in connection with these Alpine routes the large ones are outside the highland

area ; all those within the Alpine region are relatively small. Trade is not as important among the mountains as elsewhere, for most of the people live by growing their own food and by keeping cattle, and although they send away some of the produce, especially cheese and condensed milk, the amount is not very great, and they do not import as much as most other European peoples, for they make for themselves much even of their clothing and house-furnishing. In other words, they are to a considerable degree self-supporting, and except for the visits of tourists are rather shut off from the outside world.

Minerals are generally lacking, though in the Eastern Alps iron and lignite are found and give rise to some manufacturing in the valleys of the Drave, Mur, and Enns. More important will be the water-power which is now only just beginning to be used, particularly in the west in Switzerland, France, and Italy, where again some manufacturing is carried on. Most of the industries, however, are outside the Alpine region proper, and although Switzerland is commonly thought of as an Alpine country, by far the greater part of the Swiss people live in the Alpine Foreland between the Alps and the Jura Mountains.

The Carpathian Highlands.—The north-eastern end of the Alps sinks lower toward Vienna and there disappears, so that across the Danube is a lowland where the Morava joins the great river ; this lowland is called the Vienna Basin. The country drained by the Morava is called Moravia ; where it joins the Vienna basin it is bounded on the east by a narrow and low range called the Little Carpathians, and these rise higher towards the north-east until they finally bend round to the east and form the Beskides, part of the Carpathian highlands.

The Beskides are a high range in the shape of a great

bow, and within their curve are other heights; immediately south of them is the wild and beautiful mountain group of the High Tatra, and within this another curve called the Low Tatra; still further south are more mountains which used to be known as the Hungarian Ore Mountains, but this name has ceased to be applicable as all these highland masses are no longer in Hungary, but form a considerable part of Slovakia, now joined with the Bohemian and Moravian regions in the new state of Czecho-Slovakia.

Of course, the important parts of this region are the valleys which separate the highlands. These valleys run mainly between the ridges in an east and west direction, those of the west turning southward towards the Danube, those of the east turning southward towards the Tisza (Theiss). The southern boundary of the Slovakian highlands is formed by the broad valleys of the Eipel and the Sajo, where these rivers flow westward and eastward respectively. In all these Slovakian valleys the people cultivate the ground and keep their animals, and some iron-mining and manufacture are carried on, while the mountain slopes are forested and give an important supply of timber which is exported.

The Beskides are continued eastward by a much narrower mountain area sometimes called the Forest Carpathians, because they are so thickly covered with trees, on the lower slopes largely with beech, on the high slopes with firs; where these narrower mountains broaden southward into the Eastern Carpathians, the region is called the Bukovina, *i.e.* the Beech-land.

The Eastern Carpathians join on to the Transylvanian Alps, a highland region more like a plateau in structure, with broad mountain pastures divided by deeply-cut river valleys. Within the great curve formed by the Eastern Carpathians and the Transylvanian Alps lies the

upland basin of Transylvania, shut off from the Hungarian Plains by an irregular series of heights including the Bihar Mountains. Transylvania is therefore almost enclosed, and the peoples from the greater lowlands around have settled in it, so that its population is very mixed and it has been a " debatable land " recently taken from Hungary and given to Rumania.

From the point of view of communications, Transylvania is more naturally connected with Hungary, for the greater part of the upland basin is drained by the Szamos, Köros, and Maros rivers to the Tisza, and the valleys afford good routes, while only the south-eastern corner of Transylvania is drained to the lower Danube by the River Olt (Aluta), and the valley of this stream, where it breaks through the Transylvanian Alps, is very gorge-like and narrow.

Transylvania is a country diversified by hills and valleys, productive in its forests, grainfields and pastures, and with mines of gold, salt, coal, and iron, which form the basis of some manufacturing. The western end of the Transylvanian Alps also has coal and iron ; this region forms the eastern half of the country known as the Banat, whose western half extends into the lowlands by the Danube. The mountainous Banat belongs to Rumania ; the lowland Banat belongs to Jugo-Slavia.

There is no great space between the western end of the Transylvanian Alps and the Balkan Mountains ; the Danube breaks through the highland mass by a series of gorges extending for seventy miles, and at the " Iron Gates " the river forms rapids ; to allow navigation a canal has been constructed in one side of the river-bed at this point.

The Hungarian Plains.—In the immense hollow surrounded by the Alpine, Carpathian, and Balkan

Highlands there was formerly, before the time of man, a shallow inland sea into which the streams brought deposits from all around. These deposits tended to fill up the sea, and the Danube drained it by cutting the deep valley in the neighbourhood of the Iron Gates. So the sea disappeared and its bottom became a plain, but the drainage is not yet complete in so far as the lowest parts, especially those nearest the rivers, are very wet and marshy. The greater part of the region is a fertile plain, but there are some parts which are just the reverse of the marshy lowlands, for they are higher and very dry: even sandhills and dunes are often found. The climate of this enclosed plain is continental in type, that is, there is a cold winter and a hot summer, while the rainfall is much less than on the surrounding uplands. Consequently in summer much of the land becomes parched and dry, except where the rivers bring water from the mountains; some districts are true deserts and the greater part of the country is treeless.

The plain is divided into two portions by the line of heights which is cut by the Danube where that river turns sharply from east to south just above Budapest. On the south-west these heights are called the Bakony Forest; on the north-east they include the Matra group.

Above this division lies the upper plain; it is extremely fertile, and through it the Danube wanders by several channels which enclose a number of islands. Although this region is commonly called the upper Hungarian plain, the northern part, together with the greater part of these islands, is now part of Slovakia.

The lower Hungarian plain is much larger. Near the bordering uplands and on the west side of the Danube, the country is generally rather hilly; but the country between the Danube and the Tisza, and east of

the Tisza consists of the great plains known as the "pusstas." These are unattractive in appearance, being naturally a steppe land, resembling the greater steppe lands of Eastern Europe. It used to be of value only for the rearing of animals, being specially famous for its horses, but it is now an important grain-growing region. The four great rivers of the Hungarian plain, the Danube, Tisza, Drave, and Save, are all navigable throughout the lowland area, and the Danube itself forms a natural means of communication between these plains and the regions lying above and below them.

Only the north-western part of the lower plain now belongs to Hungary; the eastern margin adjoining Transylvania is in Rumania, and the southern part is in Jugo-Slavia.

The Rumanian Plains.—Between the Transylvanian Alps and the lower Danube is the plain of Wallachia, which descends gently to the swampy margin of the river. It is a fertile lowland and on the mountain borders are valuable petroleum wells.

Where the Danube turns north it breaks into many channels, enclosing swamps and marshes, and then the river turns sharply to the east at Galatz to form its delta in the Black Sea. Where it makes this turn it is joined by the Sereth which skirts the Eastern Carpathians and the Pruth, also flowing south-eastward. The almost parallel tributaries of the Sereth and Pruth have cut broad valleys into the low plateau of Moldavia, which extends between the Eastern Carpathians and the Pruth. Very similar to the Moldavian plateau is that of Bessarabia between the Pruth and the Dniester. Both Moldavia and Bessarabia may be considered part of the great lowlands of Eastern Europe, but they belong to Rumania; they are fertile grain-lands, and on the Moldavian margin

of the Carpathians there are oil-fields like those of Wallachia.

South-west of the Danube delta, between the marshy northward reach of the river and the Black Sea, is the Dobruja, another low plateau, flat and with an exceptionally dry soil ; it is less productive than most of the lowlands of Central Europe and is therefore only scantily populated.

SWITZERLAND

Switzerland is a state founded and maintained upon the idea of Freedom. It originated over six hundred years ago, when the inhabitants of the Alpine valleys leading northward from the St. Gotthard mountain region joined together into a league in order to preserve themselves from other and much stronger states which had developed in the more populated lowlands. The central Alpine region was divided into a number of small districts called " cantons," in each of which the inhabitants governed themselves in a very simple fashion and acknowledged no one as having any rights over them. At first three of these cantons united, and later others joined them, and in spite of the attacks of other countries, this confederation maintained its independence and increased its extent until Switzerland now has a population of about four million people living in an area equal to that of Denmark.

It has spread from the Alpine valleys across the Alpine Foreland between Lake Geneva and Lake Constance, and over a considerable part of the Jura Mountains. The original three cantons were inhabited by German-speaking people, and so are those of the centre and northern parts of Switzerland, but the people of the cantons adjoining France speak French, and in the canton lying

south of the St. Gotthard where the valleys lead down to the Italian plains, the people speak Italian.

Nevertheless all these people are Swiss, and they are able to live together in one state because they have learnt that only by so doing can they avoid being made part of other and greater states. Moreover, they have understood that if they are to be really free they must not try to impose their will upon one another; they leave one another free to speak different languages, and indeed to live very differently in many respects.

Therefore, when Protestants a few centuries ago were persecuted by Roman Catholics, many of them found a refuge in Switzerland, so that now more than half the Swiss are Protestants, though in some parts of Switzerland as well as in all the neighbouring states the majority of the people are Catholics.

There is now one Swiss Republic formed of more than twenty cantons. The seat of the government is at Bern, in the centre of the country, and for matters concerning the state as a whole (such as defence, treaties with other countries, communications, and monetary affairs), the government at Bern makes and carries out the laws, yet the separate cantons retain the power of governing themselves for local matters, and in these matters the central government has no power over them; thus the Swiss cantons have much more freedom in government than English counties. Moreover, some of the smallest cantons have kept their ancient and simple system of having a great open-air assembly of all citizens to decide affairs, though in the larger ones representatives of the people must be elected to carry on the government.

Moreover, the Swiss citizen retains his individual freedom to express his opinion upon the actions of the government by means of the arrangement known as the referendum. Any law passed by the government can

be challenged by the citizens; if 30,000 people sign a petition the law must be submitted to the direct vote of all the electors. In most cases in which the referendum has been employed, the people have rejected the proposed law.

After the Napoleonic Wars, the great powers of Europe guaranteed that Switzerland should be neutral and that her territory should not be violated, and its freedom from warfare was maintained during the Great War. The Swiss have not spent so much wealth on armaments and fortifications as their neighbours, nor do they withdraw their young men from their work for several years in order to form a great army; they regard this as one of the reasons why they have been able to develop their industries in spite of great natural disadvantages.

It is very remarkable that Switzerland, possessing no coal, and practically no ores, having neither coast-line nor navigable rivers, and cut off to a large extent from other countries by mountain barriers, should have become a manufacturing nation, which imports raw material, sends away manufactured goods, and buys food from abroad for its industrial population. Yet such is the case, and although water-power is now being increasingly employed in the manufacturing, the industries arose without this help.

When the cantons first united, there was a little silk-making carried on in the homes of the citizens of Zürich, and a little wool-weaving in Basel (Bâle), but the first great development took place in the sixteenth and seventeenth centuries when from Italy, the Netherlands, and France, Protestant refugees came and established themselves and their industries in the Swiss towns, particularly in Zürich, Basel, and Geneva. They carried on the making of silk and woollen goods, and the French immigrants brought the art of clock-making to Geneva.

The clock and watch industry still continues at Geneva, but the chief centres are smaller towns in the Jura valleys

and on the Swiss side of the Jura mountains. The watch-making used to be carried on in the houses of the peasants of the Jura region, where it gave employment during the winter when field work was impossible ; but this domestic industry is now giving place to work in large modern factories equipped with machinery. Watch and clock-making well illustrates the character of the Swiss industries : it can be successfully pursued because it requires relatively little raw material, but much labour and great skill, while the export of the finished articles is not a difficult matter. One great factor is the admirable development of education in Switzerland, including both general education and also technical education for the special industries.

The making of silk goods is centred in Zürich, and widely spread over the whole of the northern part of the country. The silk comes from the Mediterranean region, and the modern factories use coal brought up the Rhine. By the Rhine valley, too, comes the cotton for the cotton industry which has developed in the north-eastern part of the Alpine Foreland ; embroideries and lace are the products which best repay the skilled textile workers of Switzerland.

A more recent development is that of the chemical industries, in which water-power is largely used ; cheap water-power and scientific research are the great advantages which Switzerland possesses for the manufacture of dyes and aluminium, in regard to which this country holds a high position.

The use of water-power has led to the making of machinery suited to it ; and now hydraulic and electric appliances are not only manufactured for home use, but also exported. Zürich is important as a centre of the machinery industry as well as of silk manufacture ; it is the largest town of Switzerland and its Polytechnic (for industrial education) is famous. Next in importance are

the two " gate-towns " : Basel on the Rhine and Geneva on the Rhone.

Only in one industry has Switzerland the advantage of obtaining the raw material at home, namely in the making of milk preparations, such as condensed milk and milk chocolate, though even in this case the sugar and cocoa have to be imported.

Although it may be said that Switzerland is a manufacturing country, this applies mainly to the northern portion—the Jura and the northern part of the Alpine Foreland, but in the southern part of the Foreland agriculture and pastoral work are more important, and in the Alpine region pastoral work is the main occupation. On the Foreland cereals (especially wheat) and potatoes are grown, and in suitable situations there are vineyards. The crops, however, are not sufficient for the needs of the country, and about three-quarters of the wheat supply has to be imported.

In the Alpine region the relatively small population lives in villages near the streams in the lower parts of the valleys, and the people cultivate some fields near their houses, but their chief work is the tending of their cattle. In winter these are housed and fed with hay gathered and stored at the end of summer, but in spring they can be let out. Above the villages are the pastures known either as the " mayen," *i.e.* the country used in May, or as the " voralp," *i.e.* the lower alp (alp=mountain pasture) ; these are occupied first, and in June the cattle are taken to the higher pastures, the real alps, which are then clear of snow. Usually, the greater part of the population remains in the village and only a few herdsmen and cheese-makers go to the alps, where they live in huts, and return with the cattle in the autumn. In some cases, however, all the population migrate, and live in houses built above the main village.

Goats are also kept on the high pastures, and pigs are reared, being given the whey left from the milk when the cheese is made.

The simple life of these Swiss valleys is now being changed by the invasion of foreign tourists, of whom some millions visit Switzerland every summer. To accommodate them huge hotels have been built by the side of the small, wooden cottages of the peasants; to take them up to the heights, railways have been constructed not only along the valleys but even up the mountains; to serve them, men and women migrate every year from the Foreland or the Jura regions. The tourists also frequent the lakes, especially Geneva, Lucerne, and Zürich, and their presence has increased the growth of the towns on the lake borders.

Because Switzerland is in a central position it has often formed a convenient meeting-place when people from various countries have wished to meet to make common arrangements; also the choice, for this purpose, of a small and relatively unimportant state avoids the jealousies which might be aroused if one of the larger ones had to be selected. For these reasons, Geneva was chosen as the seat of the League of Nations, and as there are officials always resident and business always being done, while every year the chief nations send representatives and other officials to the great Assembly of the League, Geneva has obtained a unique position as being in one sense the centre of the civilised world.

AUSTRIA

The Austrians are a branch of the German peoples, who had their home in the region lying on either side of the Danube between Bavaria and the Upper Hungarian plain; this region is sometimes conveniently called

Austria Proper. The Austrian rulers gradually acquired power over other lands, their territories being increased and diminished as their fortunes rose or fell. In some periods they were allied with the other German states, but in 1866 the Austrians and Prussians fought, and this alliance was broken. After the defeat of Austria by Prussia, the Hungarians or Magyars forced the Austrian government to give them "Home Rule," so that the Austrian Empire and the Hungarian Kingdom were governed separately for most purposes, although they had the same sovereign, and united for foreign affairs, that is, in their dealings with other countries.

In the Austrian Empire were included the following areas (compare the map in Fig. 6 showing the boundaries before the Great War with that in Fig. 8 showing the peoples) :—

(1) The north-eastern Alpine regions and the lower lands of Austria Proper, both of which are inhabited by the German-speaking Austrians ;

(2) The Alpine region drained by the Adige, of which the part above Bozen is inhabited by Austrians, but the southern part around Trent, and hence known as the Trentino, is inhabited by Italians ;

(3) Bohemia and Moravia, inhabited largely by Czechs ;

(4) Galicia, the region lying north-east of the Carpathians, inhabited largely by Poles and Ruthenians ;

(5) The mountainous region behind Trieste, and the Dalmatian coast of the Adriatic, inhabited in part by Italians but mainly by Jugo-Slavs.

In the Hungarian Kingdom were included :

(1) The Hungarian plains inhabited largely by Magyars ;

(2) The Northern Carpathian region inhabited largely by Slovaks ;

FIG. 6.—Boundary Changes in Central Europe.

(3) The Transylvanian region inhabited largely by Rumanians ;

(4) The region between Fiume and the Drave river, inhabited by Jugo-Slavs.

Bosnia and Herzogovina were annexed in 1908 from Turkey by the " Dual Monarchy," that is, by the joint government of Austria-Hungary ; they are inhabited by Jugo-Slavs.

In each part of the Dual Monarchy the government was in the hands of a small group of people ; the wealthy and powerful governing class among the Germans in Austria, and the corresponding class among the Magyars in Hungary. The subject-peoples of different nationality were in each case kept from power and quite frequently kept in a very lowly position. This was particularly the case in Hungary, where the Magyars tried to force the Magyar language upon the other peoples, so that almost the only schools allowed were for Magyar-speaking children. In this way the subject peoples were kept uneducated, and so they were badly handicapped in their efforts either to improve their conditions of living, or to be free of Magyar rule.

Their opportunity came in the Great War. The men were forced as conscripts into the Austro-Hungarian armies, but they fought unwillingly and often deserted and turned their arms against their former masters ; for example, a large Czecho-Slovak force was re-formed in Russia to act against the Central Powers. When the Austro-Hungarian government at last gave up the struggle, the Dual Monarchy came to an end, and some of the subject peoples formed a new state, as in the case of Czecho-Slovakia, while others joined their kinsmen in neighbouring states, thus increasing these very considerably, as in the case of Jugo-Slavia which developed from Serbia, and of Rumania.

Only quite small regions were left to Austria and to Hungary; indeed, even parts of these states inhabited mainly by Austrians or by Magyars were taken into the neighbouring countries, so that many Austrians are now incorporated, against their will, in Czecho-Slovakia and Italy, and many Magyars in Slovakia, Rumania, and Jugo-Slavia. Yet the injustice, and the grievances and bitterness arising from this injustice, are much less than they were before the change. The boundaries of the new states, even though they are not completely in accord with the principle of self-determination, do not violate this principle to anything like the extent which was previously the case.

The most serious example of the new boundaries including Austrians in other countries occurs in Czecho-Slovakia, where along the eastern, northern, and western borders of Bohemia the country is largely inhabited by German-speaking people, who have in past times settled in the Czech country (see map in Fig. 8). But Bohemia as a whole is Czech, and it would not have been possible to retain these border districts in Austria, for they are almost completely severed from Austria by the Czech lands. Moreover, in Bohemia itself the Czech districts and German-speaking districts are to some extent intermingled and have close connections in commercial life. Finally, the old historic boundaries of Bohemia coincided with the natural frontier formed by the surrounding highlands, and it seemed wise to keep the dividing lines which had proved effectual boundaries for many centuries. These considerations were held to outweigh the disadvantage of including the German-speaking peoples in a Slav state, so that there are now some $2\frac{1}{2}$ millions of them in Czecho-Slovakia.

There is less to be said for the second case, that of the northern part of the Adige basin. Before the war,

Austria had held all the mountain region drained by the river, so that the boundary came right down to the Italian plains. This included the Italians of the Trentino in Austria, and also gave the Austrians a great advantage in regard to warfare, for there was no barrier of mountains between their territory and the plains of Italy. To get back the Trentino was one of the chief reasons which led Italy to enter the war, and when Austria collapsed, Italy not only obtained the Trentino but put the boundary much farther north along the water-parting between the streams flowing northward to the Inn and those flowing southward to the Adige. This gave Italy a very strong frontier from the military point of view, but it cut off about a quarter of a million Austrians from their mother country and reduced the western part of Austria, known as the Tirol, to a long and narrow strip. Italy has, therefore, gained a strong military position, but it has caused a perpetual feeling of injustice in its neighbour and introduced an alien and hostile element into its own population.

The new Austria is only a fraction of the old state. Its area is about equal to that of Scotland and its population is between six and seven millions. Moreover, some of its greatest natural resources were in the lost regions, so that the new state must always be a relatively poor one while at present it is in absolute poverty. This is particularly true of Vienna, the capital. Before the war this was a city of over 2,000,000 people, the governing and business centre of a country which had four times the population of the present Austria. Indeed, it was in some way the commercial centre of all south-eastern Europe, for the banks and trading concerns of Hungary, Serbia, Rumania, Bulgaria, and even Turkey had offices in Vienna, and sent their goods through this city to and from the northern and western regions of Europe.

Moreover, the mining and manufacturing industries of Bohemia were organised from Vienna, and in Vienna itself quite a good deal of miscellaneous manufacturing was carried on.

This concentration of government, commerce and industry in Vienna was brought about by the rulers of Austria, and when the Empire was broken up most of the activities of Vienna were withdrawn to the various regions concerned, and so many thousands of officials, clerks, porters, and other workmen were unemployed. Moreover, Vienna lived on foodstuffs brought from the country around and used coal from Czecho-Slovakia; these supplies were cut off, partly because the people of Vienna could no longer pay for them, partly because they came from states scarcely friendly to Austria, and partly because of the general disorganisation due to the war. Thus the people of Vienna suffered greatly; the sins of their past rulers were visited upon almost the whole population, and it was the poorer people and the children who were the greatest sufferers. Some relief was given by the governments and people of Britain, France, Italy, and America, but it could not cope with the distress.

Vienna was not only a busy city; its government and the wealthier people had made it a finely-built city, a centre of art and learning; it rivalled Paris with its palaces and gardens, its famous library and University, its picture gallery and museums, and its theatres. To what extent these may survive will depend largely upon the permanent and natural advantages which the city still possesses, as distinct from the artificial position it formerly had.

Vienna will be the capital of Austria, and therefore the centre of government and trade of a small state; it is a port on one of the great rivers of Europe; it is on

the great road and railway route by the Danube valley between north-western and south-eastern Europe, and it is at the junction of this route and that from the Adriatic (and therefore the Mediterranean region) through the "Moravian gate" between the Sudetes and the Carpathians. Yet these factors will not enable it to retain its earlier size, and a large number of its population had to seek a living elsewhere.

In one way the situation of Vienna resembles that of Copenhagen; each city developed in the most central position of its state, but when the greater part of the state broke away it was left upon the outskirts. Similar, also, in this respect is Budapest, now on the northern margin of the new Hungary.

Like the greater German state, Austria is a Federal Republic, in which the Socialists have a great deal of power, but unlike its greater neighbour, it is mainly a pastoral and agricultural country. The people of its southern portion live in the Alpine valleys, in a way very like that of the people of southern Switzerland, but the eastern Alps have more mineral deposits than the western Alps, and mining and manufacturing have developed to some extent in the Austrian valleys.

In the northern part of the mountains salt is found in several parts; the name of Salzburg, the chief town of this region, means "Salt town." Much more important are the iron and lignite deposits of the eastern Alpine margins. At Eisenerz (which means Iron-ore), between the upper valleys of the Enns and the Mur, is an enormous mass of ore. Some of this is sent northwards to be smelted at Steyr in the lower Enns valley, for some lignite and coal is found both east and west of Steyr. More of the iron is sent southward down the Mur valley to Graz, for west of this town are fairly large deposits of lignite. Graz has some manufactures and is the second city of

Austria. Iron is also found in the Klagenfurt Basin, where some manufactures of machinery, leather, and paper utilise the raw materials of the region. The industries of Austria are, however, small, its coal resources are very limited, and its water-power is as yet little used.

Austria Proper is both agricultural, with grain-fields and vineyards, and pastoral; it is the most densely populated part of Austria, and on the Danube near Bavaria is Linz, the third city of the state.

Much of Austria is wooded, and timber is one of the few products which can be exported in any considerable quantities. Because of the variety in its products and the predominance of the food-producing occupations, the country is more self-supporting than most of its neighbours.

CZECHO-SLOVAKIA

The Republic of Czecho-Slovakia has a population of about 14 millions, and its area is about equal to that of England and Wales.

It is composed of three portions :

(1) The diamond-shaped " head " of the Czech lands, including Bohemia, drained northward by the Elbe and its tributaries, Moravia drained southward by the Morava, and a part of Silesia drained northward by the Oder.

(2) The oval-shaped " body " of the Slovak lands, formed in the north mainly by the curved chains of the western Carpathian region and in the south by the valleys of the Danube and its tributaries.

(3) The narrow " tail " of Ruthenia, comprising the southern slopes of the Forest Carpathians and part of the upper Tisza valley.

The " head " is the most productive and therefore

most densely populated part of the state ; it has nearly 10 million inhabitants, of whom three-quarters are Czechs and the remaining quarter Germans. The " body " is rather smaller in area, but has only about $3\frac{1}{2}$ million people ; of this population three-quarters are Slovaks and the remaining quarter are largely Magyars. The " tail " is much smaller, and in the valleys live less than half a million people ; here again three-quarters belong to the dominant race, in this case Ruthenians, and the remaining quarter are Magyars.

The reasons why so many German-speaking people were included in the Czech lands were discussed in the section on Austria ; the inclusion of so many Magyars in the Slovak lands is based on rather different grounds. The Slovaks live mainly in the upper and middle parts of the valleys leading southward from the highlands, while the Magyars live with them in the south parts of these valleys, and also form the great mass of the population in the plains, near the Danube. If the boundary had been drawn from Bratislava (Pressburg) eastward, so as to leave the valleys of these tributaries on the north and the Danubian plains on the south, it would have been better adjusted to the difference in nationality, but it would have separated the northern valleys from one another, and so prevented the Slovaks from communicating easily with one another without going into Hungary ; this was considered an impossible arrangement. Moreover, if the Slovaks had been prevented from access to the Danube they would have lost their only good means of communication with other lands. This access would have been obtained if they had been given only the river port of Bratislava, but they succeeded in persuading the great powers of Europe which drew up the Peace treaty with Hungary to adopt as the frontier the southern course of the Danube where it divides near Bratislava,

so that they acquired a considerable part of the upper Hungarian plain.

Similarly, in Ruthenia, the valleys leading southward from the crest of the Forest Carpathians to the upper Tisza valley are occupied by Ruthenians, but in a considerable part of the upper Tisza valley itself there is a majority of Magyars. Here, again, the main valley gives a route connecting the side valleys and has therefore been included in Ruthenia.

It must be remembered that for centuries Czechs and Slovaks had been held in subjection by Austrians and Magyars, and the treatment they had received did not make them generous to their late masters when they obtained the upper hand. Force begets force, subjection leads to subjection, and it is very difficult to break the vicious circle. It is to be hoped, however, that a better time is beginning. The Czecho-Slovak state has promised by a signed treaty to respect the " racial, linguistic, or religious minorities " within its borders ; for example, schools are to use the language of the people of their district, so that the " minority population " will not have to choose (as was formerly the case) between being uneducated or speaking and writing a foreign tongue.

The Czechs have lived in their region for over 1000 years, and over 700 years ago there was an independent kingdom of Bohemia, which also included Moravia. Four hundred years ago they came under the Austrian crown, and gradually lost their independence. After an unsuccessful attempt at rebellion, much of their land was taken from them and given as large estates either to the Austrian Emperor or to the Austrian noblemen who helped to put down the rebellion. One of the first acts of the new government was to take over these estates to be the property of the Czecho-Slovak state, and to be worked as small farms ; as the great landowners had not

thoroughly developed their property, this will be a gain from the point of view of agricultural production.

During the centuries of subjection the Czechs retained their feeling of nationality, and preserved their language, even producing a considerable literature.

The Slovaks, mainly living in more or less isolated valleys, never had an independent political state, but nevertheless fought against Magyar conquest and resented Magyar government. They have a language which is so similar to that of the Czechs that the two peoples easily understand one another. Education has been denied to them almost completely, so that they have practically no literature and practically no political training; they do not, therefore, take such a large part in the government of the new state as the Czechs, but they have a fair number of representatives in the joint parliament.

The Ruthenians are descended from people of Ukrainian stock who migrated across the Carpathians several centuries ago. They are content to form part of the Czecho-Slovak state, for they have been given local autonomy, that is, home rule for local affairs, and their territory is consequently known as Autonomous Ruthenia.

The most fruitful parts of Bohemia are the valleys of the Labe (as the Czechs call the upper part of the Elbe) and its tributaries the Vltava (Moldau) and the Eger. In these valleys wheat and barley are grown, also sugar beet, hops, and fruit. On the plateau rye, oats, and potatoes are grown, and Bohemia, as a whole, has a greater proportion of its land under the plough than any of the countries hitherto considered. Cattle also are kept in very large numbers.

Moravia is lower and has an even larger area of cultivated land in proportion to its size. In its northern portion it has much the same agricultural and pastoral

production as Bohemia, but in the warmer south, maize and the vine are found. The part of Silesia belonging to Czecho-Slovakia is similar in its agriculture to the adjoining district of northern Moravia.

In Slovakia the agricultural region is mainly the southern parts of the valleys and the Danube lowlands. These are very fertile, and because of their position, practically in the centre of Europe, produce all the grain crops of the continent, maize, wheat, and barley coming first and rye and oats being less important. Fruit, tobacco, and wine are obtained, but agriculture is not as productive as it will be when the peasants are better educated.

The part of Ruthenia which is most productive is really the northern margin of the Hungarian plain, a warm region sheltered from the north and east by high mountains. Consequently the typical Hungarian products, maize and wheat, easily come first; also some wine of very high quality is produced.

In all parts of Czecho-Slovakia forestry is important, and in Slovakia and Ruthenia a large part of the land is still covered with forests; consequently timber is an important export.

In respect of industries, Bohemia is highly developed. Lignite is found in the Eger valley, and coal near Praha (Prague) and Plzen (Pilsen). Iron is also found and there is therefore an iron and steel industry, which has its chief centres at and near Praha. The manufacture of beet sugar is very important; it is carried on in the northern part of Bohemia (near the fuel supplies) and particularly at Praha. Sugar is made in such amount that it not only supplies home needs, but in addition is the chief export of the country. The making of beer is also mainly based upon the agricultural production (in this case hops and barley) and the supplies of fuel; it is centred especially

at Plzen, but " Pilsener " beer is brewed also at many other towns. Porcelain and glass are among the chief industries of Bohemia ; they are carried on particularly in the north-west, and notably in the Eger valley where kaolin or china clay as well as coal is obtained.

Textiles, too, are manufactured ; cotton, woollen, and linen goods are all produced, the chief centres being near the Sudetes border in the north-east. These industries are carried on in factories, but there is a considerable amount of glove and lace making in the homes of the peasants, particularly in the neighbourhood of the Erz Gebirge and the Bohemian Forest Mountains.

Moravia and Silesia have less industrial development. The chief coalfield of this region is near the Moravian Gate in the Teschen district on the borders of Czecho-Slovakia and Poland. The only other coalfield supplying Moravia is west of Brno (Brünn), and as iron is obtained in the neighbourhood, machinery is made at Brno, particularly for the other industries of this town, namely, woollen manufacture and sugar refining. Brno is the chief town of Moravia and the second city of Czecho-Slovakia.

Slovakia is rich in minerals, for its mountains have deposits of iron, copper, zinc, antimony, and manganese, and there are large supplies of lignite and a little true coal. These minerals are mainly obtained in the " Hungarian " Ore Mountains, notably the western end, and also at the eastern end near the town of Kosice (Kassa or Kaschau), where some small manufactures are carried on. The mining and manufacturing industries of Slovakia are capable of considerably greater development ; iron and iron goods are the principal exports at present.

Water-power is abundant in this mountainous country, but it, too, needs development. Capital from other lands

must be, and is being, introduced ; political conditions are better than they were when the land was under Magyar rule ; consequently the productivity of Slovakia is increasing and may become very considerable.

Minerals can be obtained also in Ruthenia, but at present the only one worked to any extent is salt, which is exported in great amount, and there are no manufactures of any importance.

There are three main routes by which trade with other countries is carried on : by the Elbe and its valley, by the Danube, and through the Moravian Gate. The Elbe is navigable from the North Sea into Bohemia as far as its junction with the Vltava, and the Vltava is navigable as far as Praha. Consequently Praha at the head of navigation has a considerable trade, and it is also the natural centre where routes from all parts of Bohemia meet. It has, therefore, become the capital of the state, and is by far the largest town, having nearly three-quarters of a million inhabitants. The valley of the Elbe is used also for railway traffic, and gives the main road into Germany and north-western Europe.

Slovakia has the Danube as its great highway, and Bratislava is its chief river-port and largest city. From this point trade may go up the river (by boat or by railway) to north-western Europe or down the river to south-eastern Europe.

Through the Moravian Gate goes less traffic, but the Oder is navigable from the Czecho-Slovakian boundary to the sea.

A considerable difficulty exists in regard to internal communications. The long and narrow shape of the state as a whole causes Ruthenia to be far from the capital and the chief centres of population, and the mountains of Slovakia interpose great natural barriers between the two sides of the country. Moreover, the railways of the

Czech lands were constructed to lead to Vienna and those of Slovakia to lead to Budapest ; consequently there was no direct railway communication between these two regions when they were politically united, and railways were at once projected to remedy this lack.

Yet in spite of its awkward shape and the unfavourable arrangement of the mountain barriers, the state is bound together by the common origin and the common interests of its people, and it commenced its independent existence under conditions that were more favourable than those of its neighbours after the Great War. It had escaped devastation during the war, it obtained at once a settled government (composed of representatives of several political parties and containing a large Socialist element) and it was assisted by French, British, and American capitalists who invested money in its commercial and industrial undertakings.

The character of its government and political conditions was well illustrated by the fact that the first President of the Republic was Professor Masaryk, who had Slovakian parents, was educated in Bohemia, was exiled by the Austrians because of his nationalist activities, became a professor in the University of London, and returned to unite the country and become the head of the government.

HUNGARY

By the loss of its northern territory to Czecho-Slovakia, of the Transylvanian uplands and the adjoining eastern margin of the plain to Rumania, and of the southern part of the plain to Jugo-Slavia, Hungary has been reduced to a small state little larger than Austria in area, and with a population of between seven and eight millions.

Moreover, in addition to the Magyars included in Slovakia, there are about one million among the Rumanians of the Transylvanian basin ; also there are a very considerable number in the country between the Danube and the lower Tisza which now forms part of Jugo-Slavia. In this southern part of the plain, the population is very mixed : the peoples are intermingled, and in addition to Magyars and Serbs there are colonies of Germans. To draw any line clearly separating the nationalities was quite impossible, but the balance of advantage was given to the Rumanians and Serbs, if it is an advantage for states to increase their territories by including alien peoples.

Hungary is now composed of the southern part of the upper plain, the north-western part of the lower plain, and the rather low Bakony Forest and Matra Mountains separating them. As a very large proportion of its area is therefore lowland, and as the climatic conditions over this region are fairly uniform, the country has a marked simplicity in its economic life. Until the middle of the nineteenth century, it was mainly a pastoral land over which herds of horses, cattle and sheep wandered, but now most of the land has been taken into cultivation, so that Hungary has become predominantly an agricultural state, in which maize and wheat are the chief crops, rye, barley and oats being obtained to a less extent, while potatoes and tobacco are also grown. The vine is widely cultivated on the southern slopes of the mountain districts and around Lake Balaton ; Tokay near the northern boundary of the country is famous for its wine. Animals are still reared although the region is now mainly agricultural, and the country is noted for its breed of small and lightly-built horses.

Practically all the mineral resources of the old Hungary are now in Czecho-Slovakia and Rumania ; a very little

coal is found in the Bakony Forest and Matra regions, and also in the uplands which rise from the plain near Pecs (Fünfkirchen) in the south of the country. These supplies are not at all adequate for the needs of the country, and the flour milling which used to be carried on very largely at Budapest and elsewhere is seriously handicapped for want of coal.

The rivers Danube and Tisza are both navigable throughout Hungarian territory, but only because of improvements in each case. The rivers flow through very flat country ; hence the many branches of the Danube and the extraordinary and complicated windings of the Tisza. Not only was navigation difficult, but the surrounding country was liable to flood ; dykes have been made to straighten the course of the streams and protect the adjoining lands.

Budapest on the Danube is the capital and largest city. It used to have nearly a million inhabitants when it was the governing and commercial centre of the old Hungary, but like Vienna it must be of less importance in the future. The second largest town is Szeged (Szegedin) near the southern boundary, and close to the junction of the Maros and Tisza. Debreczen is at a meeting-place of routes across the north-eastern part of the plain, and consequently the chief trading centre of that region.

Hungary, like Austria and Czecho-Slovakia, escaped direct injury during the Great War, but unlike these countries suffered invasion after the war. Producing foodstuffs to the extent it does, it should have been able to escape the famine that afflicted much of Central Europe, but there were great political upheavals, a succession of governments forced themselves on the country, and because of the establishment of one of these governments Rumanian forces invaded the country and entered Budapest. On their return to Rumania these forces took away

everything they could—machines, raw materials, live stock, grain and flour. This, coming after the exhaustion of years of warfare and the effects of bad government, crippled the country, and the restoration of its production and trade will take years.

RUMANIA

The Rumanian people claim to be the descendants of the Roman colonists of Transylvania who later spread out over the plains of Wallachia, Moldavia, and Bessarabia. Neighbouring powers overran and conquered various parts of the lands inhabited by Rumanians, and the present state was originated by the union of Wallachia and Moldavia in 1861. The Kingdom of Rumania now covers an area slightly larger than that of the British Isles, and the population numbers over 17 millions ; both the area and the population have been more than doubled as the result of the addition of territories at the close of the Great War.

The greatest addition was that of Transylvania and the eastern Banat, transferred from Hungary. In this region there live about five million people, of whom rather less than half are Rumanians, so that a majority of this population form an alien element in their new state. But although this is so, there are more Rumanians (here generally called Vlachs) than people of any one other nationality in this region. The Magyars come next to the Rumanians in number ; both Magyars and Rumanians have been in Transylvania for many centuries, but the Magyars of Hungary very early took the country under their power. There are nearly one million Magyars, and they form the majority of the population of the eastern part of Transylvania, near the Carpathians.

This part is, however, cut off from the Magyar country of the Hungarian plains by the western part of Transylvania where the Magyars are in a minority.

With the Magyars may be grouped the half-million Szekels, who live mainly in the north-east of Transylvania. These are descended from an ancient people who were probably here before the Magyars ; they speak the Magyar language, but until the middle of the nineteenth century they had an independent government and they feel themselves to be of a distinct nationality.

Peoples of German origin number nearly a quarter of a million in Transylvania and nearly half a million in the Banat. They are here called Saxons, and are descended from colonists who came from Flanders and the lower Rhine more than 700 years ago. They retain their language and regard themselves as a separate nation ; as they are better educated than the other peoples of south-eastern Europe and are hard working and thrifty, they are prosperous and form a very important group of people. There are also a certain number of Jugo-Slavs and even some Slovaks, especially in the Banat. As the whole of this region is cut off from the old Rumania by mountain barriers, it will not be easily assimilated into the new state.

The Bukovina which formed part of the Austrian Empire has less than one million inhabitants. The most numerous of its peoples are Ruthenians, but there is no strong state inhabited by Ruthenians which could absorb this territory. Next to them in number come the Rumanians, who, more active in political matters, had previously attempted a revolution, and took the opportunity of the downfall of Austria to unite with Rumania.

Bessarabia numbers over two million inhabitants. Its open plains have been invaded by peoples from all sides, and it has been joined in turn to Moldavia, to

Russia, to Moldavia again, to Russia again, and now after the break-up of the Russian Empire it has been acquired by the united Rumanian state. Two-thirds of the people are Rumanians ; Ukrainians, Great Russians, and Jews make up most of the remaining part of the population.

The Dobruja has been gradually acquired by Rumania ; the northern part has a population mainly Rumanian, but the southern part, which was taken from Bulgaria just before the Great War, has a large proportion of Turks and Bulgarians.

By the acquisition of all these regions Rumania has not only added greatly to its agricultural resources, but also obtained, in Transylvania and the Banat, mineral wealth of which it previously had only a poor supply.

Some gold, with less silver, copper, and lead, are obtained in the centre of Transylvania, near the sources of the Köros river, and salt is mined in the valleys of the Maros and Szamos.

More important are the coal (mainly lignite) and iron in the north-western part of the Transylvanian Alps, and here iron works have been established. The mountainous eastern Banat which continues this district also has coal (of good quality) and large iron deposits, and here again there are iron and steel manufactures. For these works water-power as well as coal is used in the Banat, and copper also is mined and worked. At Brasso (Kronstadt), near the headwaters of the Olt, woollen goods are made, but the largest town of Transylvania is Kolozsvar (Klausenburg) near the centre of the Basin.

The remaining minerals of the country are found on the outer edge of the mountains bordering the Wallachian and Moldavian plains. A little coal of poor quality is obtained, but the great resources are of petroleum and salt. The oil is especially important ; the wells are situated along the foothills of the mountains, both between

the east part of the Transylvanian Alps and the Wallachian plain and also between the southern part of the Carpathians and the Moldavian plain. The oil is conveyed in pipes from the wells to certain towns where refineries are situated ; the largest of these towns is Ploesti (Ploesci), north of Bucharest.

The forests give a source of wealth which has been greatly increased by the addition of the well-wooded Transylvanian and Banat regions. Beech and coniferous trees (pines and firs) are the most plentiful, but the oak though less common has the more valuable timber.

Agriculture, however, is still the greatest resource of the country. Maize and wheat are the chief crops, maize predominating somewhat in all regions. The factor determining which of the two crops is grown is the ownership of the land, rather than the soil or the climate. Maize is used largely for home use, as food for people, animals or poultry ; it is grown by the small landowners and the peasants who have a field or two, a garden and a few live stock. Wheat is in the main an export crop ; it is therefore sown by the large landowners whose estates produce far more than they need, and who obtain their money from the sale of the grain. Moreover, wheat requires more labour than maize and the peasants have usually no time to spare. In the hill country the peasants commonly own their own land, and each farm is almost an economic unit, that is, it produces practically everything it requires. In the plains the land is largely in the possession of the richer men who have large estates, and here the peasants spend most of their time working at a low wage for these landowners even though some of them also work on small farms of their own. In Bessarabia much of the land belonging to the peasants is held not by individuals but in common ; this is a Russian system which was introduced when the

country belonged to Russia, and it will be described in the section dealing with that country.

Of the other cereal crops, barley and oats are grown to a less extent than maize and wheat. In suitable regions such products as the vine, fruit, and tobacco are obtained, and the mulberry is grown for the rearing of silkworms. Animals of all kinds are kept throughout the country.

The agricultural production is in ordinary times more than sufficient for home needs and there is an export, particularly of wheat and maize ; peas and millet are also grown for export and eggs are sent abroad. These commodities, together with the petroleum and some timber, pay for the manufactured goods which have to be imported.

As regards trade and communication generally, the Transylvanian and Banat region is less favourably situated than the rest of the country, from which it is almost completely separated by the mountain barriers. Only three railway lines cross the Transylvanian Alps, and none crosses the southern Carpathians. As the Transylvanian region is so cut off from the rest, has such a different population, and possesses such a variety of resources that it could be almost completely self-supporting, it is likely to remain to a large extent a separate region from the economic point of view, even though it is joined politically to the larger Rumanian country.

Possessing the lower course and mouth of the Danube as well as a considerable frontage on the Black Sea, Rumania is rather more favourably situated for trade than Austria, Hungary and Czecho-Slovakia.

The channels of the lower Danube do not naturally favour navigation, because of the constant formation of shoals, but the central channel of the delta, which has Sulina at its mouth, has been straightened and is continually dredged so that ocean-going vessels can proceed fully

laden as far as Galatz and Braila. Navigation is still, however, prevented at certain times in the winter and spring, first by ice forming and blocking the channel, and afterwards by the floods which follow the thaw. On the average the river mouths cannot be used for about forty days a year, and "winter harbours" have been constructed where ships can lie up in safety when the river is not navigable. Galatz and Braila are two of the three great ports of the country, and it must be remembered that they handle goods going to and from the other states along the course of the Danube. This lowest part of the river has for many years been managed by an international Commission consisting of representatives of the chief commercial states of Europe. The third port is Constantsa (Kustenje) south of the delta, and therefore not subject to the blocking of its harbour by river silt or by ice, for the sea-water, salt and relatively warm, does not freeze nearly as quickly as that from the cold interior. In such regions as the Black Sea and the Baltic Sea, the ports away from the river mouths are frequently open when the river ports are frozen.

Constantsa deals with much of the traffic which passes through Rumania by rail, for it is connected directly with the main railways on the other side of the Danube by the only bridge which crosses the lower river, namely at Cernavoda.

Bucharest is nearly in the centre of the Wallachian plain, and at the crossing place of the chief routes. It is the seat of the government, and has a population of about 350,000 people, and therefore is an unusually small capital city for so large a state But just as Vienna and Budapest must decline, so Praha and Bucharest must grow, the inevitable results of the great transference of territory in the states of which they are the capitals.

WESTERN EUROPE

WESTERN EUROPE may be taken to include the Iberian Peninsula (Spain and Portugal), but it is convenient to deal with the three southern peninsulas of Europe together under the name of Mediterranean Europe ; hence the only countries included here under the heading of Western Europe are Belgium and France. No hard and fast line can be drawn in making such divisions as Central and Western Europe ; indeed, both Belgium and France extend into the regions described in the section on Central Europe.

The North-Eastern Regions.—The map in Figure 7 shows the natural divisions of France, *i.e.* regions each of which has a number of characteristics which distinguish it from adjoining regions. Those of north-eastern France may be named according to rivers draining them : the Rhine Rift Valley, the Rhine Uplands, and the Schelde Lowlands. The first two have been described in the section upon the western uplands of Central Europe. The south-western portion of the fertile Rhine Rift Valley is French. Of the Rhine Uplands, the Vosges Mountains and the country of moderate elevation lying west of them in the upper Moselle valley are also French, while the Ardenne Uplands are Belgian, and a small district between the south-east of the Ardennes and the Mosel forms the independent state of Luxembourg. The lowlands between the Ardennes and the North Sea, drained by the Schelde and its tributaries, are Belgian for the most part but French in the extreme west.

All these regions have valuable resources and are the homes of large groups of people. Alsace includes both

the wooded edge of the Vosges and the uplands just north of it looking down upon the Rhine Valley, and also the greater part of the fertile valley lying west of the Rhine where manufactures and trade support large cities such as Strasbourg, Mulhouse, and Colmar. In Lorraine is the middle valley of the Moselle with its great deposits of iron ore, and iron and steel works depending upon this mineral wealth. In the Saar Basin is the coalfield, whose ownership has been explained in the section on Germany. On the northern edge of the Ardennes is the Belgian coalfield giving rise to manufactures both along the line formed by the Sambre River and the Meuse between Namur and Liége, and also in the towns of the plains to the north ; these plains have in addition a very considerable agricultural and trading population. The north-east corner of France has a relatively small portion of the coalfield extending into it, but it is sufficient to give rise to important manufacturing industries.

The Paris Basin.—This, the largest of the natural divisions of France, is well named the Paris Basin, for it is lowland with Paris as its central point almost surrounded by higher country. Even the region between Paris and the English Channel is rather higher than that just around the city, and the Seine cuts through it by a steep-sided valley. The ring of higher country is least marked in the south-west where the Gate of Poitou (marked A on the map in Fig. 7) leads into the Garonne Basin.

Most of the northern part of the Paris Basin is drained by the Seine, but the tributaries of this river are nearly all on its right side, and much of the region on its left side drains to the Loire ; hence the south-western part of the Paris Basin is connected with the Loire rather than with

the Seine, and its outlet would seem to be to the Atlantic Ocean rather than to the English Channel. Nevertheless Paris is the centre of the life of nearly all the Paris Basin,

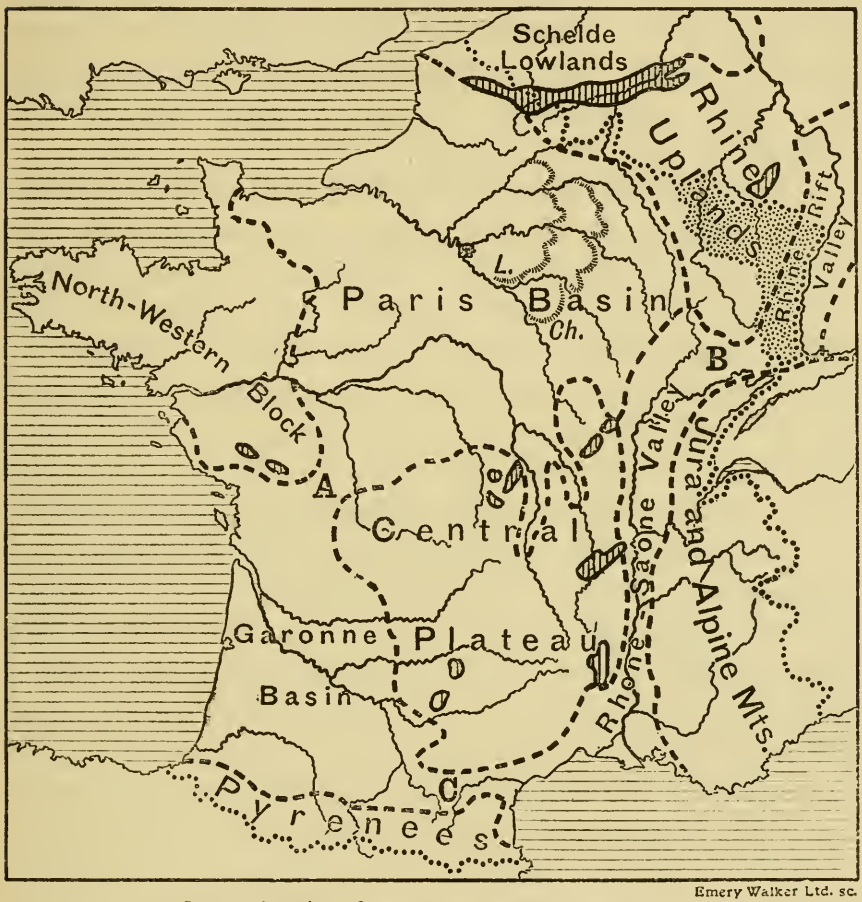


FIG. 7.—Divisions and Coalfields of France.

for roads and railroads radiate from it to all parts; even water communication centres upon Paris, for the Seine is connected by canal with the Loire at Orleans, while the Loire itself is not much used for navigation. This is

because the amount of water varies very greatly ; sometimes it has not enough water to carry boats, and at others it is flooded by rain-water which pours rapidly down from the high Central Plateau in which its chief tributaries rise. The flatter country of the Seine basin gives a steadier flow to that river, and the structure of the rocks also causes a difference in the " run-off " of rain-water to the two streams.

The Central Plateau is largely of hard rock into which water cannot sink, so that it runs away immediately and causes floods. Much of the Paris Basin, on the contrary, is formed of chalk and limestone into which the rain water disappears, creeping slowly along underground till it comes out at lower levels in springs or is pumped up in wells. The springs feed streams which flow to the Seine, so that this river gets its supply slowly and not in sudden floods, much to the advantage of navigation.

The Paris Basin is composed of a number of layers of sedimentary rocks of different materials ; at the bottom is a thick sheet of limestone, above that a softer deposit of clay, then comes a sheet of chalk, above that again a clayey layer, and finally at the top a mass of material of a limey character. These layers are bent down towards the centre in the neighbourhood of Paris, rising towards the sides of the Basin ; hence they are in shape like a series of saucers, lying one on another, the smallest appearing at the centre, surrounded by the rims of the larger ones.

The lowest and largest of the saucer-shaped layers, that of limestone, comes up to the surface in a broad band around most of the edge of the Paris Basin, particularly marked in the south-east, where it forms the high plateau of Langres which joins the north-eastern end of the Central Plateau to the south-western part of the Rhine Uplands. This thick layer of limestone is mainly upland,

with a steep edge, or " scarp slope," looking south-east over the valley of the Saône River, and a more gentle " dip slope " to the north-west where it dips down under the next layer, which is formed largely of clay. This clay layer has been worn down to lower country, which forms a narrow belt between the limestone upland and the next layer.

This, also saucer-shaped and lying on top of those mentioned, but smaller in extent, shows itself in a ring nearer to Paris. It is chalk, and in many ways is like the limestone, for it forms a rather dry upland, whose scarp slope (see the marking close to the letters *Ch.* on Fig. 7) looks outward over the clay plain while its dip slope leads down towards the centre of the Basin. The tributaries of the Seine run through gaps in the steep scarp, and towns are frequently situated at these gaps because of the trade passing through them.

The chalk dips inward to another low clayey ring, and this, in its turn, has above it the last of the saucer-shaped formations, that which forms the ground around Paris. It is largely a limey deposit, and like the outer limestone and the chalk it is plateau-like in shape, with its scarp slope looking outwards (shown by the marking close to the letter *L* on Fig. 7), and a gently sloping hollow in its centre where Paris is situated. Through its scarp slope, too, the rivers flow in gaps marked by towns, for example Reims (Rheims) and Epernay.

This alternation of layers gives varied country to the Paris Basin ; on the whole the low clayey belts are rather damp, with many trees, fertile meadows and large numbers of cattle, while the uplands are drier, appear more bare, but nevertheless have extensive fields of grain and other crops. The " rims " of the saucer-shaped chalk and limestone layers only stand up as marked and high scarps in the south-east ; elsewhere there is not such a difference

of height even though the belts of country differ in appearance and productions. The scarps of limestone and chalk face to the south-east, and so get much heat from the sun ; they are largely used for vineyards and the chalk edge is the " Champagne " region, from which the famous wine gets its name.

North of Paris much of the country is formed of a low plateau of chalk with a cliff-edged coast, with few harbours. Hence there is little fishing here ; even the coastal people grow crops or keep animals.

The North-Western Block.—The peninsula of Brittany is very different from the Paris Basin. It is not high, but it is rugged country, both along the coast and also inland. It is formed from a block of older, harder rock which is highest on the west, and dips gently eastward sinking beneath the softer layers of the Paris Basin. The region has been cut up by weather and streams, so that the less resistant rocks have been worn into valleys, while the more resistant ones stand up as ridges. In the projecting western extremity of the region, great masses of granite form bulging uplands which run from west to east behind its northern and southern shores. Between these uplands is a valley area, and as the whole region has sunk down somewhat, the sea has penetrated this lower land and flooded part of it, forming the great bays, on the north of which the port of Brest has grown up. All round the region the seaward ends of the valleys have been drowned so that the land is cut up by inlets giving useful harbours along a coast noted for its steep slopes and cliffs. Much fishing is done here, and the fishing villages send men even as far as Arctic waters and the great Newfoundland Banks across the Atlantic Ocean. Much of the country itself is of little value ; the hard rocks and the wetness of the climate prevent many crops

being obtained. This is particularly true of the projecting western portion, where in addition to the fishing the chief occupations are sheep and cattle rearing and the growing of vegetables, which here ripen early, and so get a high price in Paris before the market receives those from other regions. The eastern part has had its soils improved by mixing with lime brought from the Paris Basin, and here beside raising cattle, people grow crops and fruit, particularly apples and pears from which cider and perry are made.

The old province of Normandy included the north-eastern part of this block (the peninsula of Cotentin), and the adjoining part of the Paris Basin as far as the country around the lower course of the Seine. This was the home of the Normans, and in the great gulf of the north, between the peninsula of Brittany and the Cotentin peninsula, are the "Norman Islands," Jersey, Guernsey, Alderney, and Sark, which in government have been joined to Britain since the Norman Duke who owned them became King of England. The Cornish peninsula, the Norman Islands, and the Breton peninsula are very alike in structure, climate, and appearance, and in the occupations of the people.

The Central Plateau.—This is another great mass of ancient hard rock, and it has been uplifted so as to form a plateau rising gradually from the plains adjoining it on the north-west until it reaches a height of 5000 feet in the south-east. Here its edge forms a great curve of highland rising steeply from the Rhone valley ; this edge, mountain-like as seen from below, and cut up by many short river-valleys, is called the Cevennes.

The northern border is broken by two deep valleys, through which flow the upper Loire and its tributary the Allier. These are like deep inlets from the Paris Basin,

their floors covered with softer and fertile deposits which make them valuable agricultural districts in strong contrast with the highlands overlooking them.

It might be expected that the least useful and least populated part of the Central Plateau would be the highest, that is, the south-east part, but there are differences in the nature of the rock of which it is composed which are as important as the elevation. The north-west and lowest part is largely made of granite ; this is a rather barren plateau, with very little agriculture, but giving pasture to horses, cattle and sheep, and the lower parts are planted with chestnut trees giving nuts used by the people as food. In the middle of the plateau, overlooking the upper valley of the Allier, volcanic action has occurred, and old volcanic cones form mountains towering even higher than the Cevennes. But around these are lower masses of old lava which has weathered into a fertile soil, so that crops are grown at elevations of over 3000 feet.

In the south-west the plateau is formed of a hard limestone, so permeable that rain-water sinks in quickly and the surface is very dry. Vegetation can scarcely exist and the region is almost a desert. The water collects underground into streams which are in part hidden, but frequently come out in narrow, steep-sided and deep gorges. These gorges cut up the plateau into sections which are almost isolated from one another, for it is extremely difficult to cross the valleys. To go up the gorges is equally difficult ; they are often so narrow that no passage is left between the stream and the precipitous sides.

In this country, the dry, bare, deeply-cut limestone districts are known as the " Causses." They are found in other countries where there are very permeable limestone uplands, and go by various names. One such plateau is behind Trieste ; it is called the Carso by the

Italians, and the German-speaking peoples called it the Karst; hence geographers describe other similar regions as "Karst-like," and the Causses of France give a good idea of the Karst characteristics.

The Central Plateau of France, like some of the corresponding blocks of Central Europe, has coal deposits on its borders. The most important of these are on the east (see Figure 7). In the north-eastern part are the coalfields near Le Creusot; further south, overlooking the Rhone valley near Lyons, is a longer but narrow coalfield on which an almost continuous row of towns has grown up, the largest being St. Etienne. Still further south is the small coalfield of Alais. As is usually the case, these coal deposits have given opportunity for the development of a relatively dense population.

The Garonne Basin.—Between the Central Plateau and the Pyrenees lies the wedge-shaped Garonne Basin. The southern part of the basin is drained by the river Garonne, but the northern part is largely drained by the Dordogne, and the waters of the two streams unite in the long estuary known as the Gironde.

To a considerable extent the Garonne Basin is formed of layers like those of the Paris Basin, and is on the whole fertile. Indeed, its climate is warmer, and it therefore has an advantage over the more northerly region and produces maize as well as wheat, while fruit is abundant, especially plums, peaches, and apricots, and vines grow over all the lowland parts, the Bordeaux region being specially famous.

The coast of the region is remarkable. A line of high sand dunes has prevented the outward drainage of water, and so a series of lakes has been formed parallel with the coast. Behind the lakes is a wide expanse of flat country known as the Landes. This used to be one of the poorest

districts of France, for the sand blew inward, the dunes slowly advancing and overwhelming fields and even settlements. Moreover, below the surface a hard layer in the sub-soil prevented rain-water draining downward and the ground was damp, often marshy and very unhealthy, the few shepherds having to get about on stilts. Now great improvements have been made. The hard layer has been broken up so that the country is properly drained, while forests of pine trees have been planted behind the coast to stop the drift of the sand. From the pines, resin and tar are obtained, and the whole region is now much more productive and consequently better populated.

In the south of the Garonne Basin the country rises gradually to the line of the Pyrenees, and, in the central part of the line, where streams radiate outwards like the ribs of a fan, the upland reminds one of the Bavarian plateau, for it is covered with infertile gravels deposited from the glaciers which covered the Pyrenees in the Ice Age.

The upper Garonne is one of these radiating streams ; it flows at first to the north-east and turns sharply to the north-west at Toulouse ; this city lies at the south-eastern corner of the basin, and from it canal, road, and railway routes lead over the watershed to the Mediterranean region by the narrow Gate of Carcassonne (marked C on Fig. 7) between the Central Plateau and the Pyrenees. Most of the coast of the Garonne Basin is useless for navigation, so that the Atlantic trade is limited to the Gironde estuary, at whose head is the great town and port of Bordeaux.

The Pyrenees.—The Pyrenees are more like a wall than are many mountain regions, for they separate France from Spain so effectively that no railway crosses them ;

only around their eastern and western extremities have engineers completed railway communication between the two countries, though roads and railway lines have been constructed up a number of the valleys on the French side. These valleys end in very steep slopes; consequently even roads across the crest are few and very poor, and practically no trade can surmount this great barrier. In the French valleys some cultivation is carried on, pasturage and forests give a little value to the lower and gentler mountain slopes, but the region as a whole is of less value to the French than is the Alpine region. It does, however, form a natural defence, and has become a boundary between the two countries; until warfare between nations is abolished the possession of such natural boundaries must be regarded as an advantage, and the Garonne Basin has not suffered the repeated ravages of warfare which the more open regions of north-eastern France have experienced.

The Jura and Alpine Mountains.—These regions have been dealt with in preceding sections, and it is necessary here only to point out that France includes a large part of the south-western Alps. The boundary between France and Italy follows the watershed between the Rhone and the Po river-systems, and therefore the crests of some of the mountains; the great mass of Mont Blanc, the highest part of the Alps, towering more than 15,000 feet above sea-level, is close to the most northerly part of this boundary. The Isère and Durance, tributaries of the Rhone, drain valleys in which quite a number of people get a living, and Grenoble in the Isère valley is a centre not only of local trade, but even of manufacturing which employs many thousands of people in tanning and making gloves and other articles from the skins of the animals reared in the region; water-power is being

increasingly used as a means of manufacturing in the Alpine valleys.

Between the high Alps and the Mediterranean Sea is a narrow strip of hilly coast-land known as the Riviera. With mountains behind, a coast diversified by small bays and promontories, and the blue Mediterranean waters in front, this region is one of the most beautiful in Europe; its position, sheltered from the north by the Alps, gives it a warm and sunny climate, and these attractions draw to it people from all parts of Europe seeking health or pleasure. Nice, Monaco, and Mentone are three of its famous pleasure resorts.

The Rhone-Saône Lowlands.—The most striking feature of this region is its great length from north to south. Because of this it includes markedly different kinds of country and also forms an important line of communication. In a preceding paragraph it has been pointed out how the Gate of Carcassonne joins this lowland to the Garonne Basin; in a similar way the Gate of Belfort (marked B in Figure 7) joins it to the Rhine Valley and Germany, while the valley of the middle Rhone between the Jura and the Alps gives a route from its central portion into Switzerland. These side gates are, however, not so important for trade and travellers as the southern opening to the Mediterranean and the less marked routes over the Plateau of Langres to the Paris Basin on the north. The most used traffic route of all France is from Paris across the limestone plateau at Dijon into the Saône valley and thence past Lyons to Marseilles, the greatest port of France, at the south-eastern extremity of the Rhone Valley.

Looked at on the map of Europe, the Rhone-Saône valley is seen to give the easiest land route between the Mediterranean Lands and North-western Europe, for it

avoids the barrier of the Alps and leads on the north-east to Switzerland, Germany, and Holland, and on the north-west to North France, Belgium, and Britain.

Apart from its value as a line of communication this lowland is very productive. From the slopes bounding its northern end to the region at the south known as the Midi, it is characterized by its vineyards; the Midi region produces more wine than any other part of France. In the Saône portion there are broad plains where wheat and maize are grown, and cattle and poultry are reared. In the more southerly Rhone portion, the valley is narrower, and the climate and vegetation are different; here the Mediterranean region really begins and the country takes on a different aspect which will be described in a later section.

The extreme south is formed by the delta of the Rhone; the area, known as the Camargue, between the two chief arms of the river, is naturally a low, wet, unhealthy district, and even now that dyking and draining have been carried out it has few inhabitants. To the east of this is the Crau, formed of masses of gravels largely brought down by the Durance. In one respect the Crau is the exact opposite of the Camargue, for the ground is so dry that it is called the "French Sahara," and the only habitable parts are where irrigation canals from the Durance have brought mud and water and made possible cultivation and pastoral work.

The currents of the Mediterranean sea sweep round the shores in a "counter-clockwise" direction, so that in this region they go from east to west and take the alluvium from the Rhone system westward. The ports on the west side of the Lion Gulf are therefore obstructed; the harbour of Cette has had to be made artificially, and is kept open with difficulty. The eastern side of the Gulf is relatively clear, and Marseilles (spelled by the French:

Marseille) being well away from the mouths of the Rhone (with which it is connected by a canal) has been a commercial centre for two thousand years.

Besides agriculture and commerce, manufacture is a resource of the great valley; Marseilles has very considerable industries, and Lyons (spelled by the French: Lyon) is the centre of one of the chief manufacturing regions of France.

The Climates of France.—The temperature diagrams in Figure 3 show that in summer the heat at Brest is scarcely as great as that in Central or Eastern Europe, but the winter is very mild. As the temperature curve does not sink below the level of 42° Fah., there is no month when it is too cold for some growth of vegetation, though this growth is very little in the winter, for the temperature is only just above the amount required. But early in spring growth becomes more vigorous, and sufficient heat for the vegetables and fruits to mature is received much earlier than in the more easterly regions. This explains the export of these products from Brittany to the Paris region.

The temperature curve for Marseilles shows a winter as mild as that for Brest, with a summer very much hotter. The curve for Marseilles should be compared with that of London, placed next to it, in order to realise the much greater heat of summer. The temperature at Paris in summer is about equal to that of Brest or of London; in winter Paris is considerably colder than Brest or Marseilles, and slightly colder than London, for the average temperature is about 36° at mid-winter.

The rainfall graphs in Figure 4 show equally marked differences between the north-west and south-east of France. At Brest there is an abundance of rain, particularly in the autumn and winter, while at Marseilles there

is a marked lack of rain in the summer. The dotted line is drawn at the level which indicates a rainfall of 1½ inches a month, and less than this amount may be described as scanty; if the rainfall is considerably below this level there is a serious shortage except in cold weather. In hot weather, when evaporation is great and vegetation needs much water, drought results from such a scanty supply. In north-western Europe, *e.g.* at Brest or London, the rainfall is always above this limit; in central and eastern Europe, as shown by the graphs for Berlin and Moscow, the rainfall sinks a little below the 1½-inch level, though in the cool or cold months; in southern Europe, however, as shown for Marseilles and Madrid, it sinks considerably below and at the hottest time of the year. Hence the lower Rhone valley has a summer not only hot but very dry; for three months there is heat and drought such as Northern France and Britain never experience.

Mediterranean Climate and Vegetation.—The climate of Marseilles and the lower Rhone valley is said to be of the Mediterranean type, for it is found in almost all the lands around the Mediterranean Sea. Its essential features are a mild and wet winter and a hot and dry summer. The lands which have this climate have also a characteristic type of vegetation. The natural growth is a kind of thicket composed of shrubs or small trees, dark in colour, keeping their leaves throughout the mild winter. They have to live through the hot dry summer, and must therefore be adapted to making the most of the scanty water supply of this period. As a rule, they have deep roots to collect as much moisture as possible from that retained in the sub-soil after the top soil becomes parched during the drought. Moreover, the plants must lose as little moisture as possible through their

leaves, which are neither large nor numerous as compared with the amount of wood in the tree or bush, usually have a hard surface, and sometimes become spiny and prickly. The same protection against loss of moisture is shown in the rough and thick bark, which in one kind of oak of these lands has developed into the " cork " exported to other regions. The mild winter allows the vegetation to grow during at least part of the winter, and in spring water and warmth are both sufficient ; the bushes and trees are therefore " evergreen," and old leaves do not fall until the new ones appear.

The thicket-like growth is called " maquis " by the French, and " macchia " by the Italians ; there is no English word for it, for it does not appear in Britain, though some of the shrubs and trees which compose it have been brought to this country ; the holly is now a common English tree, laurels have been planted everywhere, but others, such as the myrtle, the fig tree and rosemary, are rare except in southern England, while olive trees are seldom found outside the Mediterranean region.

Forests of larger trees grow only in regions of greater rainfall, particularly in the mountainous parts. In districts where rain is more abundant and the heat is less, there are deciduous trees, particularly chestnuts and even beech, while forests of cork-oak and of pines, firs, cedars, and cypresses clothe many of the mountain slopes.

Grasses which in northern Europe cover the ground during the whole year cannot live during the Mediterranean summer, so that there is a general absence of grassland and meadows ; consequently cattle are relatively scarce. But the place of grasses is taken by plants which have underground bulbs and tubers. In these is a store of plant food which enables the plant to grow rapidly in the warmth of the spring and send up shoots and blossoms

which make the country look brilliant ; irises and arums, besides many others unknown in England, almost cover the ground for a short season, but die down in the summer leaving an almost bare soil.

Man has cultivated and improved the wild olive and fig trees, the former yielding oil which takes the place of butter in the food of the Mediterranean peoples, and the latter giving a very nourishing food. Fruit trees abound ; the orange, lemon, citron, and almond are the best known, and the vine is grown almost everywhere. Wine is not a luxury as it is in Britain ; light wines are the common drink of the people. Careful cultivation is necessary for the growing of fruit ; the soil on the slopes is retained by terraces built up to prevent it being washed away, and frequently irrigation is required to supplement the scanty rainfall. Where there are areas of relatively level ground wheat is obtained ; it grows during the winter and ripens in the warmth and relative dryness of late spring. " Wheat, wine, and oil " are commonly regarded as the essentials of life in the Mediterranean region.

The mulberry is an important tree, for on its leaves the silkworm is fed, so that the rearing of silkworms and the consequent spinning of silk are occupations of most of the countries around the Mediterranean Sea.

Thus the Mediterranean climate is associated with a particular kind of natural vegetation and with a group of valuable productions which have determined the mode of life over large areas of Southern Europe and the neighbouring coasts of North Africa and South-Western Asia.

FRANCE

The preceding pages have given some account of the natural divisions of France and their inhabitants ; the

country must now be considered as a whole, and its people as one nation. The area of France is nearly twice that of the British Isles, but its population is only about 41 millions, and therefore less than that of Britain, which has about 46 millions.

The three European races are all represented in this population. The Northern race has occupied the Paris Basin and spread through the Gate of Poitou to the Garonne Basin, the Mediterranean race has extended up the Rhone-Saône valley, and the Alpine race has occupied the upland and highland divisions ; these races, however, have overlapped and there has been much mingling between them. Earlier language differences have largely disappeared, and the French language is everywhere spoken, though there are local dialects, particularly in the Provence region of the lower Rhone valley. Only in Brittany does another, and quite distinct, language persist ; here the Breton language is spoken by more than a million of the people. It is one of the Celtic languages, brought by the Alpine peoples ; these languages have disappeared from most parts of central and western Europe, but have been preserved in the most westerly regions, *e.g.* the Breton of Brittany, the Welsh of Wales, the Erse of Ireland, and the Gaelic of Scotland.

The French language is derived from Latin, and to a very large extent the civilisation of France has developed from that of the Roman Empire. The French are now one of the most highly educated of the nations of the world. Their language is in one way international, for negotiations between the governments of countries which have different languages are usually carried on in French and treaties between nations are expressed in French. The French language is very direct and precise, and this quality corresponds to the clearness with which the French people commonly think. They are direct both in thought

and in its expression ; their literature is remarkable in this respect. Also they have made great contributions to science and invention, as has been shown in recent years by French developments of motor-cars and aeroplanes. In their actions, too, the French have a directness of aim, and this has made them one of the foremost nations in commerce, for French merchants do business with all parts of the world, particularly the Mediterranean countries and southern Asia reached by way of the Mediterranean Sea.

Moreover, the French are generally hard-working and economical ; they make the most of their resources, and this quality together with their ability to pursue a definite aim stood them in good stead when Germany after the war of 1871 demanded a great sum of money as indemnity. They made almost incredible efforts and freed themselves long before other nations thought they could manage it, and the same economical spirit has enabled them to save money and become capitalists, lending their wealth to people of other lands ; much French capital, for example, has been lent to eastern Europe and the eastern Mediterranean lands.

Although the French language and civilisation came originally from the Roman Empire, *i.e.* from the Mediterranean region, yet the present French state has been built up from the north. Paris, the natural centre of the northern region, was the capital of the early kingdom of the Franks, and as the power of the later kings increased their territories were extended till now the Mediterranean has been reached and indeed crossed, for the island of Corsica is politically a part of France, and there are very great French possessions in Northern Africa.

The boundaries of the state have changed greatly during the centuries, and this is particularly true of the north-eastern region, where after the Great War, the

restoration of Alsace and Lorraine added to France an area nearly as large as Wales and a population of nearly two million people.

For many centuries the great political power of France was based on its agriculture, as its fertile lowlands supported a population which was large when compared with that of other countries of Europe. Its agricultural production is still important, for the French are careful cultivators.

The production of wheat, grown in all parts of France, especially the northern plains, is greater than that of any other country if we exclude the immense plains of North America and Russia, so that France is unlike all the neighbouring states in being almost self-supporting in this respect. Oats and potatoes are widely grown in the north, as well as some flax and hemp, and the sugar beet is important in the north-east.

In the more southerly districts maize is obtained, and in the "Mediterranean region," that is, in the lower Rhone Valley and the country adjoining the Mediterranean Sea, olive and mulberry trees are common. By the Mediterranean coasts, orange and citron trees grow, and everywhere in this region vines abound. As the sunny slopes and river valleys on all sides of the Central Plateau have vineyards, France is the greatest wine-producing country in the world; from it is obtained about one-third of the total supply, and in quality as well as quantity its production is pre-eminent.

The agricultural work of France, important though it is, cannot support a population which nowadays would be considered a great one, and trade and manufactures have to be considered as a basis for the national life. The position of France has not led to its possession of such a great centre of trade as London, nor has it been so favoured in this respect as the Netherlands. Its chief

trade route is that already mentioned from the Mediterranean between the Alpine Region and the Central Plateau. Marseilles has become one of the chief ports on the continent, and it is the second city of France, having a population of over half a million. Lyons, at the junction of the Rhone and Saône, comes next in size with nearly as many people, but its growth is due to a greater extent to the development of manufactures.

Paris also is a commercial city, in addition to being the political capital and having a certain amount of manufacturing. It is the centre of all the routes of northern France, and has grown till it is now the largest city on the continent, with nearly three million people. The lower Seine valley is one of the greatest trade routes of France, and the commerce of Havre at the mouth of the river comes second to that of Marseilles, while that of Rouen farther up the river follows closely behind. Bordeaux as the outlet of the Garonne Basin is almost as important, but Nantes and St. Nazaire at the mouth of the Loire have each only a small amount of trade owing to the lack of navigability of that river and the good communications between the upper and middle basin of the Loire with the Seine system. Brest, Cherbourg, and Toulon have more importance as naval bases than as ports, and Dieppe, Boulogne, Calais, and Dunkirk (Dunkerque) are " ferry-ports," mainly engaged in trade and passenger traffic across the English Channel.

The north-east of France has a close network of railway and inland water communications. The Paris Basin is connected by railways and also by rivers and canals with each of the other lowland areas of the east. Between the Channel and the Ardennes there is room for many lines and several waterways to reach the Belgian region ; the Col de Saverne gives access to Strasbourg and the Rhine Rift Valley ; the Plateau of Langres is

crossed by Dijon to reach the Rhone-Saône valley. Similarly, the Rhone-Saône valley is connected by rail and water with the neighbouring lowlands, *i.e.* across the Langres Plateau with the Seine and Loire river basins, by the Gate of Belfort with the Rhine valley, and by the Gate of Carcassonne with the Garonne Basin. Water communication is lacking only between the Paris Basin and the Garonne Basin, though roads and railways connect these regions through the Gate of Poitou.

It is in the eastern part of France, so well served by waterways as well as railways, that the chief manufactures are situated. The main reason for the manufactures being in this part is that coal deposits are here ; the means of communication have been largely made to serve industries already existing, but once made they help those industries to grow.

By far the greatest industrial region is that of the north-east, based on the coalfield prolonged from Belgium. Linen is made here, for example at Cambrai, helped by the growth of flax in this region, while the wool obtained from the sheep of the chalk country aided the establishment of the woollen industry, carried on at Lille, Roubaix, Rheims, and other centres. Most of the wool is now imported, and so, of course, is the whole of the cotton which is manufactured at Lille and Amiens, and especially at Rouen, for this latter city can so easily import the raw material and send away the manufactured goods.

Cotton is also manufactured on each side of the Vosges mountains. Originally the industry was carried on by the French at Mulhouse and other cities of the Rhine plain when this region belonged to France. After Alsace was taken by Germany, the French manufacturers moved to small towns and villages on the western side of the Vosges, where water-power is now used. The Germans, however, continued the work at Mulhouse,

which became the greatest cotton manufacturing centre in Germany, and this great industry has now passed to France by the restoration of Alsace and Lorraine.

By this restoration France has regained the centres of iron and steel working in the Moselle valley near Metz ; the region just south of this, around Nancy, also has an iron and steel industry, and as this was not taken by the Germans in 1871 the industry here has been developed entirely by the French people.

These industries of the north and east of France have been carried on partly by means of the neighbouring deposits of coal, but in addition have had to import coal from Britain and from Germany.

The coalfields around the Central Plateau are the basis of local manufactures. At Le Creusot there are iron and steel manufactures, this district being particularly famed for its production of armaments, and the small towns along the line of the St. Etienne coalfield have a similar industry. At St. Etienne itself, in addition to arms, ribbons and other silk goods are made, and silk manufacturing is also carried on in the lower Rhone valley, where nearly all the peasants rear silkworms and spin silk which is sent to the towns to be woven into fabrics of various kinds. Lyons is the greatest silk-manufacturing centre in the world, and its central position has led to other manufactures, in addition to its commerce. The Alais coalfield is relatively small and no great industry has developed in connection with it, but at Marseilles the importation of oil has led to the establishment of oil-refineries, soap works, and chemical works ; sugar refining and other food manufacturing have also developed at this port.

The manufactures of France have not been able to become as great as those of Britain or Germany because of the far smaller coal resources ; even with the Saar

coalfield, the output of France is only about one-fifth that of Britain. Consequently the commerce and other occupations depending upon mining and manufacturing have been limited, and the total population of France has not grown as those of its great neighbours have done. This is shown by the following table, giving the growth of the populations of the three states during the last hundred years ; the numbers represent millions of people.

1820		1870		1920	
France	30	Germany	40	Germany	56
Germany	25	France	37	Britain	46
Britain	21	Britain	31	France	41

When agriculture was the chief basis of national life, France came first ; as mining, manufacture and trade have become more important, France has been outstripped first by Germany and then also by Britain.

With the repeated wars between France and Germany and the continual enmity between the two countries, France has seen the great growth of Germany with dread ; for this reason she took the opportunity of the victory of the Allies in the Great War to obtain as part of the reparation the Saar coalfield, hoping thus permanently to strengthen her position as compared with that of Germany.

The slow growth of the population of France is a noteworthy fact. It is due to the very low birth-rate, that is to say, the French have smaller families than the people of other countries, and the number of births has decreased for many years. Consequently, with the careful use of the resources of the country, France is able to support the greater part of its slowly increasing population, and emigration to other lands is not at all great. But there is migration within the country ; from the less

fertile regions such as Brittany, the Central Plateau, and the mountain regions people go to get work in the more productive ones, especially the Paris Basin. Some of them migrate only for a season, for example, the field workers of Brittany who each year go in thousands to work in the fields around Paris, returning after the harvest, and the people of the Central Plateau, who go as porters or builders' labourers to Paris and other great cities during the winter when there is little work at home. Others leave their homes altogether, and so the population of the industrial and trading centres is of a very mixed type, and these migrations have helped considerably to bring about the fusion of the various race-elements into the present French nation.

BELGIUM

In area the Kingdom of Belgium is one of the smallest countries of Europe, for it occupies only a little more than 11,000 square miles, but it has nearly eight million people ; it is therefore noteworthy as having the greatest density of population of any European state. This is partly due to the resources of the country and partly to the fact that, speaking generally, the people work hard and live economically ; there is nothing to spare and little leisure.

The position of the country has had a great influence upon the population. The Ardennes region is a part of the highland barrier separating the Germanic peoples from the French, so that the lowland plain and the Sambre-Meuse valley to the north of the Ardennes form a corridor between the homes of these peoples. Both peoples have settled in it ; moreover, invading armies have fought across it, so that it has been the site of many battle-fields

and as long as three centuries ago it was called "the cock-pit of Europe."

Yet this land, made up of different geographical units and its population composed of people of different races and languages, has become one state whose inhabitants quite willingly live together and are conscious of a common nationality.

There are two main groups in the population, the Flemings and the Walloons. The Flemings are akin to the Netherlanders and the Germans, and their language, Flemish, is very much like the Dutch language. They have spread from the German region westward along the North Sea plains. The Walloons are akin to the French and speak a dialect of the French language ; their written and printed language is French. They have extended from the French region over the southern part of the country. A line drawn across Belgium from east to west, passing north of Liége and south of Brussels, would divide the Flemish from the Walloon country. The Flemish portion is rather smaller in area, but the Flemings form more than half the population of Belgium, for the Walloon portion includes the thinly populated Ardennes uplands. As one would expect, the people of the coastal plains region frequently show the characteristics of the taller and fairer Northern Race, while on the whole those of the central and southern regions are of the shorter and darker Alpine type.

Of course there is much intermixing, and this is specially the case in the city of Brussels. Brussels is the capital, situated about in the centre of the country, and having nearly three-quarters of a million of people, and although it is just within the Flemish district, the Walloons form an important part of its population.

Although the North Sea plains of Belgium include districts of gravelly and sandy soils with little natural

fertility, the Campine being the largest and least useful of these, yet other districts are more favoured, and almost everywhere the land has been thoroughly manured and otherwise improved. The peasants have to work very hard, and even the women and children labour in the fields for much of their time. Consequently there is a considerable production, mainly of oats and rye, but not much wheat, and of potatoes and sugar-beet, together with some flax.

To some extent this production accounts for the dense population of the country districts of Belgium, but also the railways carry workmen at very cheap rates many miles from the towns where they work to their homes in the country. Consequently the towns are not as great, nor are they as smoky and dirty, as corresponding manufacturing cities in Britain.

The basis of most of the manufacturing of Belgium is the coal obtained from the long narrow coalfield which extends from the French frontier near Mons westward past Charleroi in the Sambre valley, towards Namur at the junction of the Sambre and Meuse, and onward to Liége on the Meuse where this river turns northward. All these places are mining centres, but much of the mining goes on in pits outside the limits of the towns, so that there are many small mining villages along or near the Sambre-Meuse valley.

In the eastern part of the coalfield iron also is found, and even in the Middle Ages Liége made steel, using the wood of the Ardennes as fuel ; now it uses coal and much iron-ore has to be brought from the great deposits in Luxemburg and Lorraine, while the iron and steel industry has extended to a number of towns.

In the Middle Ages there was another famous Belgian industry, the woollen manufacturing carried on by hand in several cities of Flanders. At one time English wool

was exported to be made into cloth by the skilful Flemish weavers of Bruges, Ghent, and other towns of the plain. This industry declined as people of other regions learnt the art of weaving, but the making of linen has continued, and a cotton industry has developed. Ghent has cotton factories, and lace is made in considerable amount at Brussels, and Mechlin (Malines), while linen is manufactured in the west of the country at Tournai and Courtrai.

As with agriculture, so also with manufacture, the workers have a hard time ; even as late as the end of the nineteenth century one-third of them had to work seven days a week and the wages are on the average very low. The landowners in the country and the factory owners in the towns are better off ; they have acquired money and Belgian capital has been lent abroad ; for example, the owners of Belgian iron and steel works have taken a considerable part in developing, and supplying capital for, the iron industry of southern Russia.

Both agriculture and manufacture in Belgium have been greatly aided by the very complete system of canals which connect the rivers, and by the very close network of railways and light railways which covers the northern part of the country. Belgium was the first country in Europe to develop a railway system ; it is largely state-owned, and is carefully planned to serve all parts, the lines radiating out from the chief centres ; its fares and traffic rates are extraordinarily low. The light railways are steam tramways running along the roads and bringing town and country into the closest touch.

The foreign trade of Belgium has suffered great changes through the centuries. Five hundred years ago Bruges was not only the chief centre of cloth making, but also the most important harbour and port of the " Low Countries." It then had a stream which was navigable for the small craft of those days, but was later silted up

so that the town is now inland. Soon after the decline of Bruges, the sinking of the land near the mouth of the Schelde, aided by a great storm which washed away the obstructing mud and sand, opened the mouth of the Schelde to trade, and made Antwerp accessible even to large ships. For a time Antwerp was the chief centre of the trade from the East Indies, but its commerce declined, at first because of wars and later because the Netherlanders, through whose territory trade along the lower Schelde has to pass, put heavy tolls upon the traffic. Only in the second half of the nineteenth century were these tolls removed, and now that trade can pass unhampered it has grown till Antwerp is the second largest city of Belgium and one of the chief ports of the continent.

Arrangements have to be made between Belgium and the Netherlands for the navigation of the Schelde, for unless the lower part of the stream is kept open and provided with buoys and lights to guide shipping, the upper part is almost useless. Belgian ships may use the lower Schelde freely in time of peace, but in war time only commerce may go on ; warships may not then pass, and Antwerp is cut off, as far as regards naval and military purposes, from the sea.

The silted-up Belgian coast is naturally unsuited to commerce. Ostend is a Channel ferry-port, and although a canal has been made from Bruges to the artificial harbour at Zeebrugge, it is little used.

A canal has been constructed from Ghent directly northwards to the small port of Terneuzen on the lower part of the West Schelde estuary, but this canal, like the lower Schelde and the Maas, passes through Dutch territory. The Netherlanders are not anxious to divert into Belgian territory trade which might pass through Rotterdam, and so difficulties have arisen between the two

countries, and for half a century Belgium has considered that the Netherlanders have exacted hard terms when they have made Belgium pay all the cost of the canal even at Terneuzen itself, and also failed to give facilities for dealing with the increasing amount of traffic. It will be noticed that all the important waterways of Belgium reach the sea through Dutch territory, and difficulties such as those which arise from this fact frequently occur when lines of communication are cut by political boundaries; these difficulties can only be satisfactorily solved when the two countries concerned live in a friendly way, neither desiring to gain at the other's expense.

Although Belgium is such a small country, it possesses a great territory in the Congo region of Central Africa. This was obtained in the first instance as a personal possession of its King Leopold II., and after disgraceful misgovernment under his rule, it was transferred to the care of the Belgian nation and became the only Belgian colony.

MEDITERRANEAN EUROPE

In this section will be considered the three great southern peninsulas and the neighbouring islands of the Mediterranean Sea. But as in the case of the other great divisions of Europe, it is difficult to separate this region from the rest of the Continent.

For example, the Alps skirt the Mediterranean Sea and are continuous with the Appennines, yet they are mainly in Central Europe ; again, there is no break between the mountains of the Balkan Peninsula and those of Central Europe.

In regard to climate and vegetation, too, these three great peninsulas do not coincide with the region which has the characteristic Mediterranean climate with its mild, wet winter and hot, dry summer, and the accompanying natural growth of evergreen trees and shrubs. These were described in the section on Western Europe, for they are found in the south-east of France. On the other hand, a large part of the western or Iberian Peninsula and the greater part of the eastern or Balkan Peninsula have a climate and vegetation not of the Mediterranean type ; so, too, has the Plain of Lombardy, which although part of Italy is scarcely part of the Italian Peninsula.

In each of the great peninsulas the structure is somewhat similar in spite of the differences in their shape. The Iberian Peninsula consists of a great block of ancient hard rock forming the west and centre, to which are joined fold mountains—the Cantabrians on the north and the Sierra Nevada and adjoining ranges on the south. In the block and in the neighbouring portions of the fold mountains minerals are found in large amount.

The Italian Peninsula at first sight seems different, for it has a " backbone " of fold mountains, and there are only small areas of block structure. Yet fragments of a great block are there, in the form of the larger islands of Sardinia and Corsica and smaller islands such as Elba, and also on the mainland of Italy, opposite to Elba, in the province of Tuscany. It will be shown later that these Italian islands have only quite recently been separated from the mainland. Italy itself is poor in

minerals, but the islands of block formation have deposits of several metals.

The Balkan Peninsula has a great core of block structure, extending from the mountain region near the Danube at Belgrade south-eastward to the Ægean Sea, and as in the case of the Iberian block, so here also fold mountains are joined to it on either side, the Balkans on the north-east and the Illyrian Alps and their continuation on the west and south-west. Moreover, minerals are widely distributed in and near the central block.

The Ægean Sea was once the site of a mountain area with lofty ranges joining the Greek region and Asia Minor, but with deep long valleys and somewhat circular basins. This area sank down, the valleys and basins became the deep hollows of the Ægean Sea and the chains and peaks remained as islands. Crete, for example, is a part of a great curved chain of limestone mountains which extended from the south of the Greek peninsula of the Morea on the west, by the islands of Carpathos and Rhodes to Asia Minor on the east.

If the artificial cut of the Suez Canal is excluded, the only opening of the Mediterranean Sea to the ocean is the narrow and shallow Strait of Gibraltar. Because it is thus shut off, the tides of the great ocean do not penetrate to the Mediterranean and there is consequently no rise and fall of its waters, and no scouring of the river mouths by the in-flow and out-flow of tidal currents; thus the deposit of river alluvium goes on unhindered and navigation suffers.

Also, although the surface waters of the great ocean may be warm its deep waters are cold, for these creep slowly from arctic to tropical regions. The shallowness of the Strait of Gibraltar prevents these cold waters entering the Mediterranean, so that at all depths its waters are warm, and form a reservoir of heat which in

winter is gradually transmitted to the surface and hence has a moderating effect upon the climate.

The warm climate of the Mediterranean region favours agriculture, which is the predominant occupation of the people. Rain, however, is often lacking, and there is consequently a marked difference between the productivity of the districts in which irrigation is practised and those in which it is not employed. Also many areas which might be made into fertile lowlands are ill-drained and marshy. This is not only a loss to agriculture but a great cause of disease, for the people of such areas suffer terribly from malaria.

This disease is not directly conveyed from one person to another, but by mosquitoes of a certain kind which bite an infected person and transmit the malaria to others bitten afterwards. The mosquitoes breed in stagnant water and do not go far from their breeding-places; therefore if the district can be freed from stagnant water, for example, by the draining of marshes, the mosquitoes are exterminated and the disease is no longer carried from person to person. Thus malaria has been entirely got rid of in certain districts where all precautions have been taken, and the draining of marshy areas is now proceeding with most beneficial results.

The Iberian Peninsula.—Broadly speaking, the Iberian Peninsula is a massive highland region, cut off from the rest of Europe by the Pyrenees almost as effectively as it is separated from Africa by the narrow Strait of Gibraltar. The Pyrenees are continued westward by the Cantabrian mountains, and these end in the broad highland of Galicia whose westernmost point is Cape Finisterre. The Cantabrian mountains are an important mineral region, much iron being obtained. The north coast and the whole of Galicia are well-watered and

abundantly forested. The heavy rains give rise to torrents of water pouring down the mountains toward the sea, and consequently this region has been very much cut up and is dissected by deep valleys. A slight sinking, especially marked in the western part, has allowed the sea to penetrate the valleys and so produce an abundance of small inlets. These afford good harbours, but the high mountains prevent lines of traffic being developed from the interior to take advantage of the harbourage.

The western coastal region is very different, for south of the Minho there are considerable coastal plains, the mountains coming to the sea only near Lisbon and at Cape St. Vincent. The coastal plains are fertile and productive and form the most important part of Portugal, which extends southward from the Minho past the narrow mouth of the Douro and the wide estuary of the Tagus as far as the narrow estuary of the Guadiana.

East of these coastal plains rises the great block of the central tableland of Spain, called the Meseta. The upper courses of the Douro, Tagus, and Guadiana have cut deep and narrow valleys in the plateau, and the rivers have rapids which are found as far down their courses as the frontier between Spain and Portugal.

There is no very definite western edge to the Meseta, for it is broken by the river valleys and by the hills which run down to the Portuguese lowlands, but on its eastern side the plateau rises to a high mountain mass overlooking the broad Ebro valley and the Mediterranean coast. The heights overlooking the Ebro River are known as the Iberian Mountains ; they have been cut across only by the Jalon, a tributary of the Ebro, whose valley gives one of the few natural routes connecting the interior of the Meseta with the rest of Spain. Further south the Jucar drains from the plateau to the Mediterranean Sea, but its valley is reduced to a narrow, steep-sided cañon 1000

feet deep. The eastern part of the country has very little rain; consequently there is little weathering to widen the valley cut downwards by the river which collects its water from a considerable area of highland.

The southern edge of the Meseta forms the northern rim of the Plain of Andalusia, and beneath it runs the Guadalquivir. Seen from the river valley the edge appears like a wall of mountains, known as the Sierra Morena. (The term Sierra is applied to many of the Spanish mountain chains; it means a saw, and refers to the jagged saw-like appearance of the crests.) The streams flowing down the Sierra Morena to the Guadalquivir have cut the edge into an irregular country, wild and desolate in appearance, but they have not formed any valleys giving an easy route through the mountains.

The Meseta is not only cut by the deep river valleys; it is divided also by mountain ranges. A series of these rise from the plateau and form a highland edge to the south of the basin of the Douro; the eastern part of this edge is known as the Sierra de Guadarrama. Thus the upper part of the Douro basin forms an almost completely enclosed region, the plateau of Old Castile. To the south of the Sierra de Guadarrama is the somewhat similar plateau of New Castile, but this is composed of the upper basins of two rivers, the Tagus and Guadiana, separated by the ridge of the mountains of Toledo.

The Meseta as a whole is a block of hard, ancient rock like those of the uplands of Central Europe, and the ridges are formed of particularly resistant material such as granite, but the enclosed plateaus of Old and New Castile have a soil of a different kind. In the past they were occupied by great lakes in which soft deposits were laid down before they were drained by the outflowing rivers. Some of these deposits are salt and these are useless for agriculture, but others would be fertile if the

climate were not so dry. As it is, the country is a poor steppe-land with so little natural vegetation that there is a Spanish proverb which says : " A lark going into Castile must take its own food."

New Castile is further south, and therefore rather hotter and drier, than Old Castile. The temperature curve for Madrid in Fig. 3 shows that in summer the average temperature reaches nearly 80°, and the graph in Fig. 4 shows that for the four hottest months there is a great lack of rain, while even in the rest of the year the supply is by no means ample. Moreover, there are considerable differences in temperature not only between summer and winter but also between day and night, for the region is shut off from the moderating influence of sea breezes, and so at times the plateau is bitterly cold in winter as well as scorchingly hot in summer. The climate is anything but pleasant, and perhaps most unpleasant are the clouds of dust which in summer fill the sky, penetrate the houses and almost choke the people.

In the extreme south of New Castile are the flat, high plains of la Mancha where Don Quixote had his adventures ; this is the most arid part of Spain, and there are neither trees nor upstanding rocks or hills to give any shade. Here the headwaters of the Guadiana often sink into the dry, gravelly soil to appear again lower down. The name means the Duck River and has been given because the stream disappears and reappears in its course, as a diving duck does in swimming.

The Meseta as a whole is of little value for agriculture and much of it is only useful as rather poor pasture land, but the southern edge has considerable mineral wealth.

At its eastern extremity the Sierra Morena merges into the mountain area which forms the south-eastern part of the peninsula. This is frequently called the Sierra

Nevada, but the proper name for the whole of the many ranges is the Betic Cordillera ; the term Sierra Nevada, or Snowy Range, should be applied only to the portion which extends behind the Mediterranean coast between the ports Malaga and Almeria. Here are the highest mountains of Spain, rising to over 11,000 feet, and the melting of the snows in summer gives water to the Guadalquivir at a time when the other rivers of the peninsula (except in the north-west) have a greatly diminished supply. To its relatively abundant water the Guadalquivir owes its name, which means the Great River. The eastern part of the Betic Cordillera, like the adjoining Sierra Morena, is a mineral-producing region.

The plain of Andalusia is undulating country in its upper part, naturally rather arid so that some portions must be irrigated by water from the mountains to make it fertile, but near the mouth of the river there are great marshes ; nevertheless Andalusia is one of the most productive regions of Spain. In these latitudes cultivation can go far up the mountains wherever the ground either is naturally fairly level or has been built up in terraces. The olive, for example, is grown to a height of over 4000 feet on the southern side of the Sierra Nevada.

On the Mediterranean shores of Spain, in the provinces of Granada, Murcia, and Valencia, there are only small lowlands, but these have been made very fertile by irrigation ; here are the huertas or gardens, producing all the Mediterranean fruits (oranges and lemons, almonds and raisins, grapes and pomegranates, dates and figs, olives and mulberries), besides cereals (maize and wheat), and even some cotton, sugar-cane, and rice.

The Ebro valley is shut off from the Mediterranean Sea by the Catalonian Mountains through which the river winds in a narrow valley ; because of this barrier and

the sand-choked delta beyond, the Ebro is not navigable, except for small boats in the middle course of the river. Its wide triangular basin is like the Meseta in having very little rain, but as it lies in a hollow, water from the surrounding highlands can be distributed over the land, and such fertility as it has is due to irrigation.

On the whole, therefore, the peninsula is not naturally very fertile ; the north and north-west have the western European type of climate with forests and meadows ; the central plateau has a climate tending to be of the continental type, with extremes of temperature and a lack of rain, and so is largely a pastoral region ; the south-western region has a Mediterranean climate and is relatively fertile ; the south-eastern region is drier but where irrigation is possible the huertas are wonderfully productive.

In the northern and southern mountain areas minerals (including coal and iron) are abundant, but the mining has not led to a great development of manufacturing industries.

The Strait of Gibraltar is narrow, and it is due to faulting which let down the mountain region once connecting the Sierra Nevada with the mountains of North Africa. From the geological point of view it is of recent formation, though it occurred long before the Ice Age. Over the land-bridge which here connected Europe and Africa plants spread and animals migrated. There is therefore a great similarity in the scenery, the vegetation and even the animal life on the two sides of the Strait, so that apes are found on the " Rock " of Gibraltar, and further north chamæleons and flamingoes remind one of Africa.

The Plain of Lombardy.—This great plain was once part of the Adriatic Sea, but into the hollow between the

Alps and the Appennines were brought masses of alluvium from the mountains and also there was a slow uprising which brought the deposits out of the sea. The filling up of the Adriatic is still going on, as is shown by the fact that the sea was named from the town of Adria which in Roman times was on the coast between the mouths of the Adige and Po, although it is now some fourteen miles inland.

The lower part of the plain is marshy and there are lagoons behind the coast, while dykes have had to be constructed to protect the valley of the Po from its floods. Now most of the region is fertile, and it is largely irrigated from the streams which drain to the river Po.

The Plain of Lombardy has a colder winter and a greater summer rainfall than the peninsula of Italy ; its climate and productions are therefore of the Central European rather than the Mediterranean type.

The Italian Peninsula.—The greater part of the Italian Peninsula is occupied by fold mountains which are probably the most recent in the world. Indeed, the pressures within the Earth's crust still show themselves by the earthquakes which occur at intervals, particularly along certain fault-lines such as that which has caused the Strait of Messina between Sicily and Calabria, the " toe " of Italy. Here repeated shocks have shifted considerable areas sufficiently to destroy buildings and cause loss of life.

Volcanic activity is due to the same cause, and occasionally there are outbursts of material : molten rock or lava ; ashes ; dust ; or steam which condenses and forms a rain of warm water. Great volcanic cones have been built up, such as that of Etna, on the island of Sicily, 20 miles across and 10,000 feet high, Stromboli and its neighbours which rise out of the Tyrrhenian Sea

and form the Lipari Isles, and Vesuvius on the mainland near Naples. Flatter accumulations, usually in the form of sheets of lava, also occur : the Campagna between Rome and the sea was made in this way, and with the deposits of the Tiber forms a great unhealthy marsh.

In some regions the volcanic activity has now nearly died out and only hot springs or the escape of gases persist. Some vents give out boracic acid vapours, from which boracic acid is condensed and then evaporated to a solid form.

The Appennines are also remarkable for being mainly formed of very young and very soft materials, quickly worn away by weathering and streams. Masses of clay slip down the hills and cause serious land-slides, and the rivers rapidly build out swampy deltas into the tideless sea. South of Rome, sand has been washed along the coast and hindered the drainage from the hills behind ; here are the great Pontine Marshes.

In some parts the mountains are of limestone, especially in the Neapolitan region (*i.e.* near Naples, named in ancient times : Neapolis). The famous and beautiful Bay of Naples is due to a basin-like subsidence, where the faulting has exposed cliffs of white and shining stone. In the north of the Appennines the limestone has been changed to marble ; near Carrara and Massa are the quarries from which marble for statuary is sent to all parts of Europe.

Apulia, the " heel " of Italy, is also of limestone, but the layers have not here been folded ; they form a horizontal table of permeable rock through which the rain sinks so easily that there is not a single river in the Apulian peninsula. The " spur " of Mt. Gargano is another and higher limestone plateau.

Between the hills of the Tuscan block and the great curve of the Appennines is a hollow, once filled with water

and now drained by the Arno and the Tiber ; the valleys of these rivers are fertile and densely populated districts. So too is the lowland region between the Neapolitan Appennines and the Tyrrhenian Sea.

The Appennines form a great barrier to intercourse between the east and west of the peninsula, and also between the Plain of Lombardy and the Western Mediterranean. Three passes are important : near the junction of the Appennines and the Alps are the Bocchetta and Giovi passes, leading from the west of the plain to Genoa, while the la Futa pass crosses the Tuscan Appennines between the east of the plain near Bologna and the valley of the Arno.

The Italian Islands.—The north-east of Sicily, like the adjoining province of Calabria, is of the block structure, but the greater part of the island is like the Appennines, of younger and softer material. It has been described as a " chaos of rounded hills," but nevertheless it is a fertile land. Sulphur is an important mineral product.

Malta may be considered with the Italian islands, although it belongs to Britain, for it is a limestone mass bearing witness to a past bridge between Italy and Africa ; this is shown by the numerous remains of African animals, *e.g.* elephants and hippopotami.

Corsica may also be considered with the Italian islands although it is politically a part of France, for Corsica and Sardinia are very similar to one another. Like Malta, they were in the past joined to the lands around, and even now the animals of these islands are said to resemble those of Africa and Spain more than those of Italy. These islands are mainly cliff-bounded, mountainous regions with wild scenery ; they are largely forested and abound in minerals, copper and silver-lead

being the chief, but they are little cultivated and have relatively few inhabitants.

The small island of Elba between Corsica and Tuscany is another block-fragment marking a past connection; it has important iron deposits.

The climatic conditions of the Italian lands on the whole are favourable to agriculture, although the south-east of the country suffers from a lack of water. The mosquito-breeding marshes and the earthquake shocks are the greatest natural drawbacks to the country.

The Balkan Peninsula.—In structure this may be thought of as a partly destroyed bridge between Europe and south-western Asia; and it has indeed played the part of a bridge in human history, but as a means of communication it suffers from two great defects: in the first place, the subsidence of the Ægean area is continued into the Black Sea region, so that the bridge is here broken by a waterway between the two seas; in the second place, the Balkan Peninsula is so mountainous that there are only two natural routes across it between Central Europe and the south-east of the region.

Although the peninsula has a long western coast-line its back is turned to Italy, for the drainage of nearly all the rivers is to the east: by the tributaries of the Danube to the Black Sea in the north and by various rivers to the Ægean Sea in the south. Moreover, the limestone mountains of Dalmatia rise steeply from the Adriatic Sea and are so porous that the region is of the Karst type, with little vegetation, few inhabitants and much underground drainage. Only one river, the Narenta, connects the coast with the interior in the whole stretch from the Gulf of Trieste to the angle in the coast-line where it turns from south-east to south. At this point (in the north of Albania) there is a change; the

mountains which have hitherto run south-eastward parallel with the coast form a range, the Albanian Alps, which runs inland towards the north-east, and opposite to these another range, the Shar Dagh, runs in the same direction. Between the two ranges is a relatively low piece of country through which the river Drin finds its way to the sea ; this may be called the Albanian Gate, and it gives a fairly easy way from the Adriatic into the interior. In the south of Albania the mountains resume their south-easterly direction and form a backbone to the peninsula portion of Greece where they are known as the Pindus Range ; only small lowlands and unimportant river valleys are found in the western region of Greece.

The coastal plains of Albania are swampy and malarial ; they are little used.

The mountains of Jugo-Slavia are of the Karst type only in the west ; towards the east they are of a more mixed sedimentary type, and also they become lower. The rivers, too, flow with less interruption and link the upland region to the lowlands of the Save. Of these streams, the Bosna is " back to back " with the Narenta, and there is a route, although rather a difficult one, between the two river valleys. Sarajevo, the old capital of Bosnia, is on this route near the head of the Bosna River.

By far the most important of these rivers is the Morava, which runs northward to the Danube. Its lower valley forms the chief route of the peninsula, for from it branch out the two great ways from Central Europe to the south-east. One of these continues southward up the Morava valley and over a low water-parting to the valley of the Vardar, and so goes to the Ægean Sea at the Gulf of Salonika.

The other route leaves the lower Morava valley at Nish, and goes south-eastward up that of its tributary

the Nishava. Continuing to the south-east it rises into the high basin of Sofia, which lies between the Balkan fold mountains and the central block of the peninsula. It then goes down from the Sofia basin into the greater and lower basin of Philippopolis through which runs the Maritza River. It follows the course of this river through the hill country on the south-east of the Philippopolis basin into the rather similar basin of Adrianople. Here the Maritza turns sharply southward, but the main traffic-route goes eastward to Constantinople and so to Asia.

Within the curve of the Maritza is the Rhodope Mountain mass, the least cut-up part of the central block of the Balkan Peninsula. West of it, the block is not only cut by the Morava and Vardar rivers, but also by the Struma; the valley of this river is not of such great importance although it does give a road from the Sofia basin southward to the Ægean Sea.

Apart from these valleys, which are used for agriculture as well as traffic, the central block is mainly highland, and though it bears forests and pastures and has mineral deposits it is of relatively little value to man. But there are exceptional districts, which have subsided and form basins of some importance. Many of these were once filled with water which drained into them from around, and large lakes of this kind are shown on the map where Greece, Albania, and Jugo-Slavia meet, but most of the lakes have now been drained by the outflowing streams and their sites are now occupied by more or less marshy plains. These form a welcome addition to the cultivable and pastoral resources of the country. In Greece, two such basins are clearly to be seen southwest of the Gulf of Salonika, where they form the plains of Thessaly. Thessaly is the name frequently used for the region surrounding these plains, Macedonia is the

region of the Vardar and Struma rivers, and Thrace is the region between Macedonia and the Sea of Marmora.

The Balkan fold mountains consist of a number of parallel limestone ridges which become lower eastward until they disappear by the coast of the Black Sea. The portion of this coast which belongs to Bulgaria has only small rivers flowing to it, for the Maritza and its tributary the Tundja turn south, and the Danube turns north; Bulgaria therefore lacks direct water-communication with the sea. North of the Balkan Mountains there is a plateau of fair fertility, gradually descending towards the Danube but with a steep edge overlooking the river.

The relief and shape of the land have a marked effect upon the climate, for the Mediterranean type extends only a little distance inland. The hot, dry summer and mild, wet winter, with the natural evergreen thickets and the cultivated fruits, are found only in the coastal regions and on the islands.

The interior even of the Greek peninsula, although it is no great distance from the sea, has rather different conditions, for its altitude gives it a lower temperature and a greater rainfall, and it is, therefore, clothed with forests of chestnut and other deciduous trees.

The greater part of the Balkan Peninsula has a climate rather like that of Central Europe; it is naturally a forest land, the chief trees being beech and oak; there is much pastoral work and cereals are grown. Maize is the chief crop, but in the north where it is somewhat cooler wheat is rather more important.

The eastern regions tend to have a longer winter; also there is less rain, and in the enclosed basins of Philippopolis and Adrianople a lack of water is particularly marked. These are steppe lands; cultivation is not important, though some wheat is grown, and the population is scanty.

These conditions are found in the lower lands of the peninsula; the mountains which occupy a large part of the area are of course much colder, and even some of the inhabited basins are high enough for the altitude to modify the climate and productions. For example, Sofia is nearly 2000 feet above sea-level, and the average temperature in January is as low as that of Berlin, and hence considerably lower than that of London. The Balkan Region is therefore the least Mediterranean in climate and productions of the southern peninsulas of Europe.

SPAIN

Although the Iberian Peninsula is so compact in shape it forms two separate states, and within it four different languages are spoken.

The peninsula gets its name from the first inhabitants of whom there is any knowledge, the Iberians. The race to which they belonged is uncertain and their descendants can no longer be distinguished as regards physical characteristics from the later comers, who are mainly of the Mediterranean race. Yet the language of the earlier inhabitants has been handed down, and is still spoken by the Basques; these people number nearly half a million, and live on the borders of France and Spain where the Pyrenees and Cantabrian mountains unite.

The languages of the rest of the peninsula are derived from Latin, for the region was part of the Roman Empire. Adjoining France at the eastern end of the Pyrenees is the province of Catalonia; the Catalonians are akin to the people of south France, and their language is nearer to the "Provençal" dialect of France than to the Spanish language. Catalonian is also spoken and written

by most of the people of the province of Valencia which joins Catalonia on the south.

Spanish is the language of the greater part of the peninsula, but Portuguese is spoken in all the western region, in Galicia as well as in Portugal itself.

This difference between the Spanish and Portuguese languages, as well as the existence of the two separate states, is due to a most important historical event, the conquest of nearly all the peninsula by the Moors, and its re-conquest by the Christians. The Moors were Mohammedans who in the eighth century crossed from northern Africa and overran all the country except the north where small Christian states maintained themselves. Three of these states gradually gained power and slowly reconquered the land. In the centre was Castile and in the basin of the Ebro was Aragon ; these increased their territories, and the Moors were pressed southward until the latter retained only the region of Granada in the Sierra Nevada. Finally, the union of Castile and Aragon, at the end of the fifteenth century, brought nearly all Spain under one rule and the Moors were expelled.

From the north-west another southward movement took place, so that the western region was reconquered by different people from those of the greater part of the peninsula. Though Galicia was afterwards incorporated into Spain, and has adopted the Spanish written language, the southern part of this western region remained independent and formed Portugal. During the long period of separation the many differences between the Portuguese and the Spaniards were developed, including the difference of language ; the modern Spanish language has arisen from the Castilian dialect.

Spain shows many results of the Moorish occupation, particularly in the south. The Moors were in some ways highly civilised, and the most beautiful buildings in

Spain are due to them. The Alhambra at Granada is a Moorish palace of exquisite beauty, and the beautiful cathedral at Cordoba (Cordova) was a Mohammedan mosque. To the Moors is also due the wonderful irrigation systems which are now by far the best feature of Spanish agriculture. Many Moorish words have become part of the Spanish language, and Moorish names are common.

The population of the south of Spain, especially in Andalusia, have Moorish blood in their veins, and this forms one of the differences which mark out the various peoples of the peninsula from one another. Catalonians, Castilians, and Andalusians differ in descent and physical appearance, in customs, in language, in traditions; so marked are the contrasts that it is quite possible that the present Kingdom of Spain may not continue as one political unit.

After the expulsion of the Moors, Spain became one of the great powers of Europe and took a prominent part in the discovery of new lands which marked the end of the fifteenth and the beginning of the sixteenth centuries. The discovery of America in 1492 was made by Christopher Columbus, who, although a Genoese, was in the service of Spain. Because of the part played in these discoveries, Spain acquired vast territories across the oceans, and for a time it became the "mistress of the world."

The military spirit which defeated the Moors and conquered other lands was not accompanied by industry and perseverance in the arts of peace, and although Spain for a time obtained wealth from abroad it neglected its resources at home and gradually declined into poverty. Religious persecution against those who embraced new faiths was added to the attraction of wealth in other lands in causing the more active-minded and vigorous people

to go abroad, and now the Spanish have a reputation for indolence which only the energetic Catalonians escape.

Practically all the Spanish colonies have now been lost, but over a great part of America, south of the United States, the population is in part of Spanish descent and the Spanish language is spoken ; for this reason, Spanish is one of the chief languages used in commerce.

The agricultural productions of Spain vary greatly according to climate. In the north and north-west grow maize and millet, and fruit trees like those of western and central Europe, while cattle are reared on meadow lands. On the plateau cultivation is often neglected ; much of the land is held in large estates and little worked, while the peasants who own the rest are unskilled and not industrious. In Old Castile wheat is the chief crop, and sheep-rearing is carried on in all parts. There is a regular migration of sheep and shepherds up to the highlands in the summer and down to the lower lands in the bleak winter.

The Ebro valley and the Plain of Andalusia are in part irrigated and obtain olives, grapes, and other fruits, besides wheat, but the huertas, described above, are the most productive regions though very restricted in area. They are especially important in the lowlands near Valencia and in Murcia, and from them are exported wine as well as grapes, and the other fruits.

The mining of the north coast is important ; iron is obtained in large quantities and exported from Bilbao and Santander. A less amount is mined near Oviedo and exported from Gijon, and here some coal is also obtained. Coal exists in other parts of the peninsula, but it is little worked. Iron is also obtained from the east of the Sierra Nevada near Almeria, and in the east of the Betic Cordillera near Murcia and Carthagena. Much lead and silver are also obtained in this district as

well as from the Sierra Morena, especially near Linares. Further west near the Rio Tinto are copper mines which have been worked since the time of the Romans; the copper is exported from Huelva at the mouth of the river. Mercury is obtained from Almaden, in the southern part of the Meseta.

Manufacturing, however, is small. In the Bilbao region there is an iron industry, but the chief industrial centre is at Barcelona, which is the second city of Spain. Its manufactures of cotton and other textiles have little advantage of situation except a sheltered harbour which enables raw materials to be imported and manufactured goods to be exported. The energetic character of the people seems to be the greatest factor in the development of this city, though it has a fairly easy road across the Catalonian mountains into the Ebro Valley.

Lack of natural routes and navigable rivers and also of well-made roads and railways has hindered the development of Spain. Madrid was selected as the capital, for it is in a central position, and so most easily reached from the populated districts scattered around the margins of the peninsula. Yet access to it is difficult, and it is little larger than Barcelona, having less than three-quarters of a million people.

Seville is at the head of navigation for sea-going ships on the Guadalquivir, and is the commercial centre of Andalusia, but the channel of the river has had to be artificially deepened, and Cadiz which is south of the river mouth has gained in traffic at the expense of Seville. Zaragoza (Saragossa) is the natural centre of the Ebro valley, near the place where the Jalon valley gives a road into Castile.

The area of Spain (including the Balearic Islands off the eastern coast) is more than half as large again as that of the British Isles, but its population is less than half

as great, namely, about 21 millions. So little are the natural resources developed that there is nevertheless a very considerable emigration, mainly to South America.

The great majority of the Spanish people are very poor, probably poorer than those of any other European country with the exception of the war-stricken ones of the central and eastern parts of the continent; their poverty is one reason why there have been many uprisings among the people. This poverty and the differences between the people of the various provinces do not give promise of a stable government.

Gibraltar is a British possession; it is a small rocky peninsula which is regarded as the "Key of the Mediterranean," and for that reason is a strongly fortified base for warships, as well as a coaling station for merchant vessels.

PORTUGAL

The Republic of Portugal has less than one-fifth the area of Spain, but its population is about one-third as large, namely, nearly 7 millions; the greater density of population in Portugal is due partly to its greater fertility and partly to the greater energy of the people.

The Portuguese are of very mixed origin; the position of the country, on the Atlantic seaboard and the lower courses of the rivers, has exposed them to the incursions of many peoples. In the south there is even a Negro element introduced in the fifteenth and sixteenth centuries when Portugal took a large part in the opening up of lands beyond Europe.

Prince Henry of Portugal, called "the Navigator," began this work in the middle of the fifteenth century

by sending out important expeditions to the African coasts, and the Portuguese not only discovered new lands, but also acquired great colonies, including Brazil in South America, considerable areas in Africa, and portions of India. Yet Portugal, like Spain, rapidly declined in power ; this was partly because it was annexed by Spain for a time and partly because it suffered, as Spain did, from the emigration of many of its most active and liberal-minded citizens. Now the greater part of its possessions have been lost, but the Azores and Madeira islands which lie to the west and south-west are part of the Republic, and there are large Portuguese territories in east and west Africa.

There is no marked natural boundary between Spain and Portugal, although rapids on the rivers near the frontier prevent navigation between the two countries. In the north the Galician highlands are continued into Portugal, and the abundant rainfall of this part causes the region to be well forested with oaks and chestnuts ; in the mountain area goats and sheep are kept and rye is grown, while on the lower lands cattle are reared and wheat and maize are cultivated.

From the Douro to the Tagus the natural vegetation is definitely of the Mediterranean type, and the olive and vine are largely cultivated ; the production of wine is particularly great on both sides of the Douro, port wine being named from Oporto. Wheat and maize are also grown in this central region as well as the Mediterranean fruits.

South of the Tagus the rainfall is less, and there are large areas of uncultivated land on which only sheep and goats pasture. Even these areas are now being taken for agriculture, and other parts are quite productive, growing fruits and maize. The coastal strip forming the extreme south of Portugal, running eastward from Cape

St. Vincent, is particularly fertile and resembles the huertas of southern Spain.

Pine woods cover parts of the country, particularly near the sea, and there are extensive areas of oak, especially cork oak, in the southern region adjoining Spain. Swine feed on the acorns, and the cork is exported in great quantities.

The sea also yields its harvest to the Portuguese. Sardines and tunny fish are caught, especially off the southern coast and off Setubal, south of the mouth of the Tagus. This is considered the centre of the sardine fisheries, and near it are also large oyster banks.

The country does not produce much mineral wealth. A very little coal is mined, and the only metals which are of any value are copper, iron, and wolfram. Salt is obtained by evaporation of sea-water, which is let into large shallow enclosures behind the coast; this is done extensively near Setubal.

Manufacturing has not developed on a large scale, though textiles are made in the larger towns, such as Lisbon and Oporto, both for home use and for export to the African possessions.

The export of wine, cork, fish, fruit, and some metals, pays for the import of foodstuffs and manufactured goods; the trade is considerable in amount and is carried on mainly at Oporto at the mouth of the Douro, and Lisbon, where the sheltered estuary of the Tagus forms a fine harbour. Lisbon is the capital, with a population of about half a million. At the end of the eighteenth century a large part of it was destroyed by an earthquake, a tragic consequence of the continuance of faulting in this region.

Although the people of Portugal are not so poor as those of Spain, there is much emigration, mostly to Brazil, its former colony, and to the United States.

ITALY

Two thousand years ago the strong rule of the Romans not only united the whole of Italy, but made it the political centre of their Empire which extended over all the Mediterranean region and even beyond the mountain barriers of the north into Central and Western Europe. After the Roman power declined, Italy split up into small districts which had a very changeful history. Other European states arose and dominated parts of this country, and it was repeatedly ravaged by war. In the Middle Ages, there were certain cities, such as Genoa, Florence, and Venice, which were independent and indeed acquired power over surrounding and outlying districts.

In the time of their prosperity, these small Italian states devoted much of their wealth to building beautiful churches, palaces, and city halls, of which the walls were often decorated with wonderful frescoes and pictures. The subjects of the paintings were mostly religious, but the background nearly always showed the scenery of the country around the city. The artists expressed their joy in the beauty of their native landscapes—the clear air, the small walled towns perched on hills, the pleasant fertile valleys, and the mountains blue in the distance. Thus it is not only for the scenery, but also for its buildings and its pictures, that people from other countries visit Italy.

Among the Italian city states Genoa and Venice gained special importance by trade; they were the great commercial centres of the world, organising most of the trade between Asia and Europe until the "land route" through Constantinople was closed after its conquest by the Turks. This closing of the land route stimulated the discovery of the "sea route" round Africa, and caused the decline of Italian trade and the rise of that of

the Netherlands, for which, moreover, no crossing of the mountains of Central Europe was necessary.

Not until the second part of the nineteenth century was Italy freed from foreign rule, and then most of its states were united into one kingdom. Even after this, the Pope was the ruler of the "Papal States" of the central part of the peninsula, but in 1870 these came under the government of Italy and Rome once more became her capital.

Since then Italy has acquired considerable possessions in northern Africa, and at the close of the Great War the Trentino and southern Tyrol were added, together with the region round Trieste and the peninsula of Istria.

The boundary between Italy and Jugo-Slavia in this region was a matter of long dispute between the two countries. Trieste and the western part of the Istrian Peninsula had a majority of Italians, but the whole of the upland region east of Trieste and the eastern part of Istria had a considerable majority of Jugo-Slavs.

By the treaty which Italy made with Britain, France, and Russia as the price of entering the war, Italy was to have all the country west of Fiume, with the boundary running very much as the present frontier does, together with part of the coast of Dalmatia to the south-east and most of the Dalmatian islands. The reasons for this claim were that the lands had belonged to Venice in the past (before they were Austrian) and that as a result there were Italian people and an Italian type of civilisation in certain parts; also Italy desired to hold both sides of the upper Adriatic in its power, lest in time of warfare Venice and the Venetian lands should be in danger of naval attack.

After the war Italy further claimed the town of Fiume, giving as a reason that it had an Italian population, but doubtless desiring to obtain the port so that all the trade

of the upper Adriatic would have to pass through Italian territory (see Fig. 5).

The Jugo-Slavs objected, showing that when the town of Fiume and its adjoining suburb were taken together there was a majority of Jugo-Slavs, and that Fiume was the natural and only port for the north of Jugo-Slavia.

After more than two years of discussion and frequent threats of war, a compromise was effected. Italy kept the region west of Fiume including the islands adjoining the Istrian Peninsula, but gave up its claim to the Dalmatian coast and the other islands ; by this she included more than half a million Jugo-Slavs and their lands in her territory. Fiume was to be an independent state on the boundary of the two kingdoms. The port of Zara, on the mainland, 100 miles to the south-east, was exceptional in having an Italian majority, and it has been made autonomous, but under Italian suzerainty, *i.e.* it is self-governing for local affairs, but its relations with other states will be determined by Italy.

With these additions Italy has an area about that of the British Isles, and a population of about 40 millions. The chief resource of the country is its agriculture. Wheat is by far the most important crop, and the chief food of the people. Maize ranks next, both in the amount of production and as an article of food ; it is grown mainly in the north. The irrigated lands of the Plain of Lombardy used also to produce a great deal of rice but the amount is decreasing, yet because of the unhealthiness of the work in the flooded rice-fields this decrease is a positive advantage to the people. The cattle-rearing and cheese-making of the plain depend upon the repeated cutting of the sown grasses of the irrigated lands, and not upon natural pastures which are far less productive. Vines and mulberry trees are largely grown here, and the land is so thoroughly utilised that the vines

are trained over the mulberry and other trees, while grain is grown beneath them. Poultry are important also in this northern part of Italy and the eggs are exported, together with dairy produce, wine, olive oil, and silk.

South of the Po lowland the products are more of the Mediterranean type. In the hill country there are forests of chestnut trees, the nuts being utilised as a food, there are large herds of sheep tended by migratory shepherds, and the lower slopes are terraced for olive trees and vines. The coastal lowlands (where they are not marshy) grow wheat, olives, vines, and many of the Mediterranean fruits. The market gardens around Naples are most intensely cultivated, producing, for example, lemons, tomatoes, and the vegetables which, for lack of more nourishing but dearer food, the peasants eat in large amount.

Although agriculture is almost the only occupation of the south, manufactures have recently developed rapidly in the north. The making of silk is very important, and Milan has now rivalled Lyons as a silk-market. The manufacture is carried on not only in the city but very widely in the northern part of the plain, where there is the advantage of water-power brought from the mountains. Cotton manufacturing is a more recent development, and so is the steel industry. The latter is rather remarkable, as the only Italian ores are those of Elba and Sardinia, together with some deposits in the western Alps so inaccessible that they were utilised for the first time during the extreme need for steel for munitions in the Great War. Not only raw material but also coal has to be imported, mainly from England, and water-power is used as far as it can be in this industry. Water-power is also increasingly employed to drive the electrified railways of Northern Italy, and it is transmitted across the plain as far as Venice. A notable feature of these

industries is the extent to which they are scattered among the small towns, as well as the greater ones, of the plain.

Milan is the largest city of the north, a centre of trade in the plain as well as of that which crosses the Alps by the central routes ; Turin and Verona have corresponding positions in connection with the western and eastern passes (see Fig. 5). Venice, built on islands in the Adriatic by refugees from invaders, has been enabled to persist as the Adriatic entry to the plain because it is on the safe side of the Adige and Po, whose deposits are carried southward by currents. Genoa takes the trade with the western Mediterranean and Atlantic, for the Bocchetta and Giovi passes give easy routes across the mountains. At the south-eastern side of the plain, Bologna is on the land route and railway which skirt the western shore of the Adriatic, and it communicates by the la Futa route with Florence in its fertile valley. The towns of the south are largely the centres of crowded agricultural regions, and Naples with two-thirds of a million people is the largest city of Italy, slightly exceeding Milan in size and considerably larger than Rome. Sicily is densely populated and has three large ports, Palermo, Catania, and Messina.

It will be noticed that Italy has almost as many people as the British Isles, although it has practically no mining and relatively little manufactures and commerce. This great population cannot be supported by agriculture except at a low standard of living and by hard work, even the wives of the labourers having to work on the land.

There is a marked difference in this respect, as in so many others, between north and south Italy. The people of the north are poor though industrious ; those of the south are less industrious on the whole (though this difference is more marked in towns than in the country), and they live for the most part in abject poverty. The wages

are scarcely sufficient to maintain life; a few years before the war women worked in the olive plantations at $3\frac{1}{2}d.$ a day, and the government employed them at only $3d.$ a day on the railways.

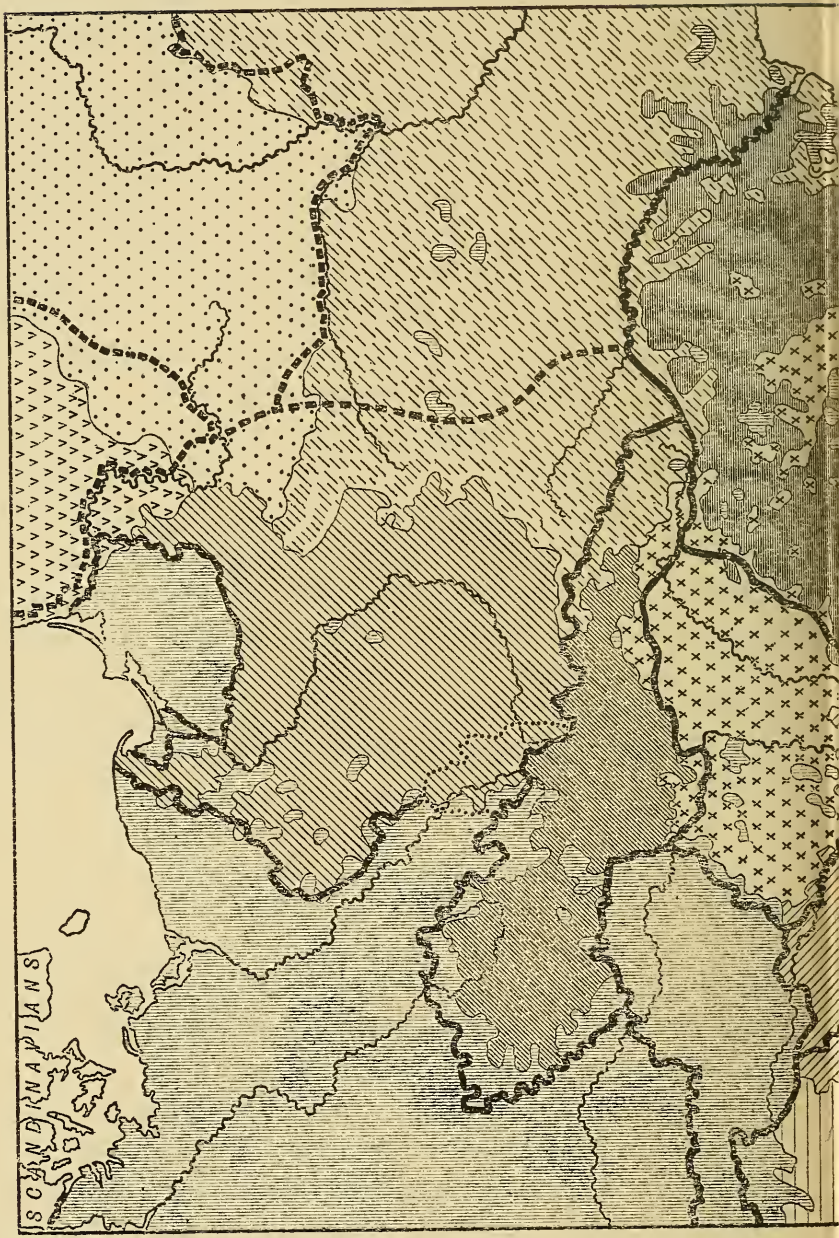
The north is in many ways a modern community, progressive and democratic; the south is still in the Middle Ages, the nobles have great estates and their tenants live in an almost servile condition, poverty-stricken and uneducated, and quarrels are settled by violence instead of by appeal to the law. In all these respects Sicily has the worst reputation. Moreover, malaria is a constant scourge in almost all parts of the south.

The country cannot, indeed, support its population and so emigration is very great. There is a temporary migration out of the country, *e.g.* men go to other countries as navvies on road making and railway construction, and a permanent exodus, partly to North America, but largely to South America, where there are now so many more immigrants from Italy than from Spain and Portugal, that in Argentine and Brazil the hard-working Italians are almost colonising these parts of the New World.

THE BALKAN STATES

The peoples and problems of the various states of the Balkan Peninsula are so intermingled that they must first be considered together: later each of the states can be separately noticed.

If the three groups of the Jugo-Slavs (Slovenes, Croats, and Serbs) are taken as one, there are still six different peoples in the peninsula. The distribution of these peoples should be carefully examined in Fig. 8. In the south and on the islands and coasts of the Ægean Sea are the Greeks. They are of mixed race and are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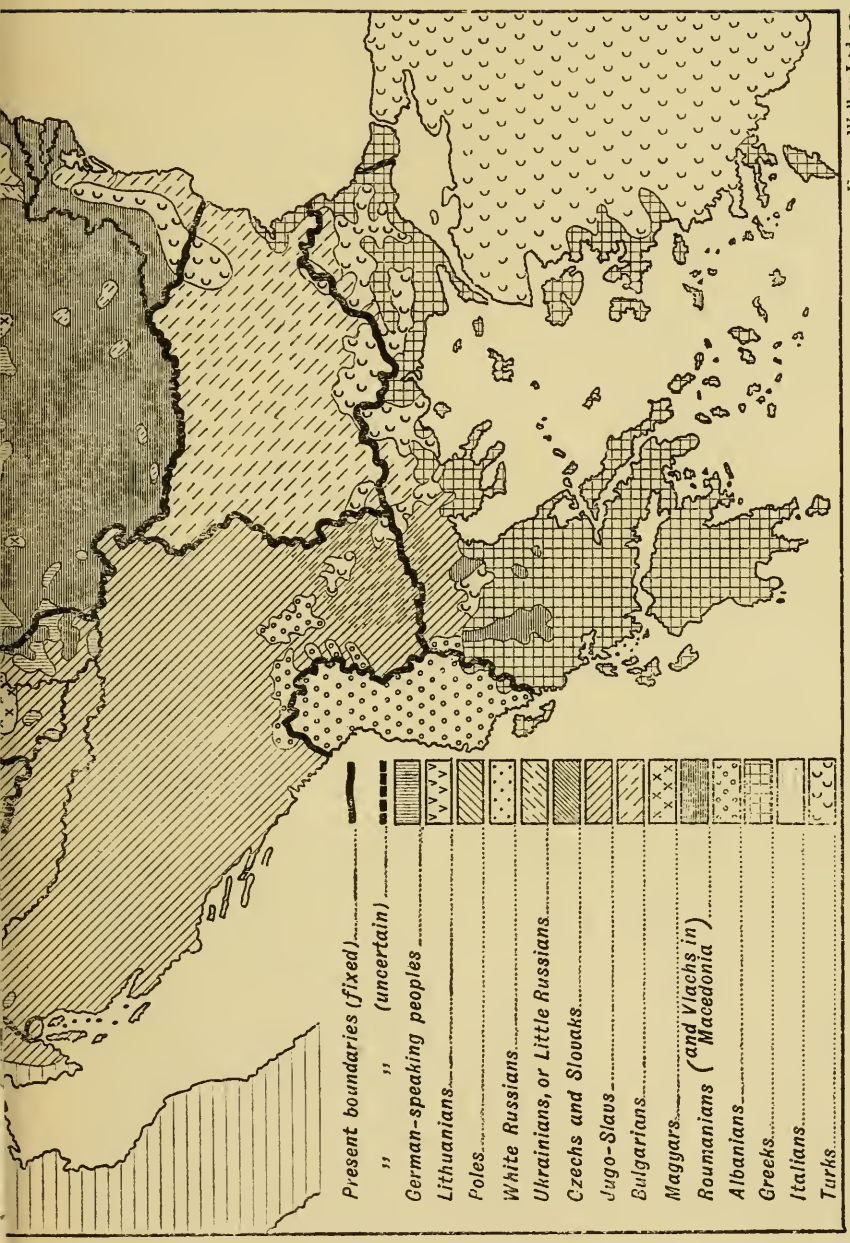


FIG. 8.—Peoples of Central Europe.

descended only in part from the ancient Greeks ; nevertheless their language is similar to classical Greek, and it is a bond between the inhabitants of the scattered islands and shores.

On the uplands of the south are a small number of Vlachs, akin in descent and speech to the Rumanians ; they have no lands of their own, for they are wandering shepherds driving their flocks from place to place and selling small wares among the settled peoples. The Vlachs are decreasing in number, as they leave this nomadic life to take up other work, mainly in the towns, and become lost among the other peoples.

In the central part of the western mountain region live the Albanians, a finely-built, hardy people of uncertain origin, probably Slav, though their language is quite different from that of the Jugo-Slavs. They are pastoral, keeping flocks of sheep and goats, but their life is partly nomadic and partly sedentary, for they move with their animals up on the mountains in summer and down to the coastal lowlands in the winter, and yet they have their permanent villages in the mountain valleys and grow crops in the neighbouring fields. The Albanians are a warlike folk, particularly those of the north.

The most numerous people are the Jugo-Slavs. When in the fourth century the Slavs from the Carpathian region settled in the northern part of the Balkan Peninsula, they formed three groups, but sooner or later each of these groups was conquered by a greater power. The Slovenes of the north-western region of the present Jugo-Slavia were made subject by the peoples of Central Europe ; the Croats of the centre had an independent kingdom till they were overrun by the Magyars ; the Serbs had for a time a more extensive state, but the eastern part of it was conquered by Bulgarians, who were akin to the Magyars. Although the Bulgarians were the

masters of this region, many of the Slavs remained, and in the course of time the people were largely Slavonic in appearance and language, and almost entirely Slavonic in ways, even though they retained from the Bulgarians their name, and their hostility to their Serbian neighbours.

The Serbs long preserved an independent kingdom, but in the fourteenth century they were conquered by the Turks, who from Asia Minor overran a great part of south-eastern Europe. Only two small areas in the Balkan Peninsula escaped subjection. On the Adriatic coast, cut off from the rest of the region by the mountain wall, small trading and fishing communities retained their independence: Ragusa was the centre of a tiny republic. Also in the adjoining highlands some Serbs repelled the Turks and formed the small kingdom of the Black Mountain, that is, Montenegro, and these Serbs became known as Montenegrins.

During the time of their subjection the Balkan peoples have had a most unhappy history; those of the western portion were under the rule first of one power and then of another, while in the central and eastern portions the Turks kept their hold for hundreds of years.

The rule of the Turks was almost the worst that can be imagined. Although the Turkish peasants, as they live in Asia Minor and even in settlements in parts of the Balkan Peninsula nearest to Asia Minor, are peaceable and hard-working people, yet the Turkish ruling class are merely the oppressors of their subjects, and in Europe the officials extorted taxes and the landowners extorted rents from the Balkan peoples with the utmost severity and cruelty, in some cases to the point of driving them to the mountains and taking their cattle and lands, while the Turkish soldiers, brought from all parts of the Turkish Empire, enforced their rule even by repeated massacres. Some of the people saved their lives and

possessions by changing their Christian religion for Mohammedanism, and so became reckoned as Turks. But rebellions took place, and the other Christian states attacked the Turks, so that the oppressed peoples slowly obtained their freedom.

During the nineteenth century the Turkish rulers were expelled from most of the Balkan region and three small states were formed in addition to Montenegro; namely, Serbia (then called Servia) and Bulgaria in the north, and Greece in the south, while Turkey stretched from Constantinople across the peninsula as far as the Adriatic, including Albania. This was the condition of things at the beginning of the present century, and the division of the country among these states is shown in Fig. 6.

The strip of territory held by Turkey contained only a relatively small number of Turkish peasants, apart from the officials and soldiers; the population was mainly Greek in the south and close along by the Ægean coast, Bulgarian and Serbian in the greater part of Thrace and Macedonia, and Albanian in the far west.

Thus the Greek, Serbian, and Bulgarian peoples were only in part free, and the small states desired to drive out the Turks completely and extend their own borders to include their kinsmen. Moreover, Serbia was completely enclosed by its neighbours, and greatly wanted an outlet to the sea. Bulgaria had, indeed, a strip of coast on the Black Sea, but its chief river (apart from the Danube, which turned north through Rumania) was the Maritza, and it desired the whole course of this river, and with it an outlet to the Ægean Sea.

Therefore in 1912 Greece, Serbia, and Bulgaria attacked Turkey and quickly won this "First Balkan War," as it is called, driving the Turks back, so that they retained only part of the Adrianople basin and the

country between this and Constantinople. Greece extended northward and gained the mouth of the Vardar and the important port of Salonika. Serbia and Bulgaria had arranged, before the war began, to divide Macedonia between them ; Bulgaria was to have the southern part where many, and probably most, of the population were Bulgarian (note the overlapping of the markings on Fig. 8), and Serbia was to have the northern part, together with the northern part of Albania.

Serbia desired this latter region because the Albanian Gate would here give it an outlet to the Adriatic, for it must be noted that Austria held all the Adriatic lands west of Montenegro (see Fig. 6). But this extension of Serbia was objected to by Austria, who feared an increase of Serbia's power and objected to this country reaching the Adriatic where the sea narrows, so that the two sides of this entry would be held by Italy and Serbia respectively, and the position of the Austro-Hungarian ports of Trieste and Fiume would therefore be rendered insecure in time of war.

Moreover, the Albanian Gate was inhabited by Albanians and not by Serbians, and the other European Powers supported Austria's objection, so that Serbia was forced to give up her proposal. Albania was made into an independent state, and Serbia turned for an outlet to the Vardar route to the Ægean. But the Greeks had established themselves at the mouth and Bulgaria had been promised the Macedonian region south of Uskub (Skoplie). Serbia now wanted to obtain this region, and this led in 1913 to the " Second Balkan War " between Serbia and Bulgaria. Bulgaria was quickly defeated and lost all the Macedonian territory, while Turkey took the opportunity to occupy nearly all the Adrianople basin, and so cut off the Maritza route to the Ægean, and Rumania seized a strip of the north-eastern part of the

country adjoining the Dobruja. Bulgaria gained only a small piece of Ægean coast west of the Maritza mouth, cut off from the main part of her territory by the Rhodope mountains. She was very bitter in consequence, and joined the Central Powers against Serbia during the Great War. Once more she was defeated, and the country south of the Rhodope Mountains was lost, so that her territory is now very restricted. Bulgaria is a much smaller state than either Greece or the new Jugo-Slavia, for Greece gained the whole of the northern coastal lands of the Ægean, while Serbia united with Montenegro and with the Serbian, Croatian and Slovene lands previously held by Austria and Hungary.

The political quarrels of the Balkan States have therefore centred upon two matters : the inclusion of territory occupied by kinsmen, and the possession of easy routes to the sea. Even now the boundaries of the states do not correspond with differences in the population, and Bulgaria at least lacks the outlets she desired ; moreover, the repeated warfare has left bitter memories and angry feelings, so that the continued peace of the Balkan Peninsula is not yet assured.

Yet many, if not most, of the peasants have no wish to engage in political strife ; they want only to be left to work their lands unmolested. They are but little educated (though Greece is more favoured than other states in this respect), and in many ways are less advanced than the inhabitants of most European countries.

Agriculture and pastoral work of a simple kind is almost the only occupation ; the region has various and widely distributed minerals, but these are little worked, and manufactures scarcely exist. This lack of development is due to the evil effects of the Turkish government which have persisted after the Turks were expelled, and to the general insecurity of the region, for the necessary

knowledge and capital can only be supplied from Western Europe or America, and will not be given until capitalists and business organisers can count upon a fairly safe return for their investments.

Greece.—The Kingdom of Greece is now about as large as England, and its population numbers about six million people, including over one million non-Greeks, mainly Bulgarians and Turks.

The Greek territories appear very scattered, but nevertheless they are remarkably alike in many ways. They all have the Mediterranean climate and natural vegetation, and the people follow the occupations of fruit growing and the making of olive oil and wine. Wheat and other cereals are not grown very largely, for much of the territory is hilly. There is a considerable surplus of fruit, particularly of currants, and as all the lands are close to the sea, this can be easily exported in return for wheat and manufactured goods. Tobacco is another important export. Wines are made for home use, but not largely exported.

As the Greeks are good seamen they spread through the Ægean region, settling on all the islands and surrounding shores to grow their products, and they take their wares to more distant lands. Being skilful bargainers, they succeed in establishing themselves as merchants in the towns of all the Eastern Mediterranean, so that there are many Greeks outside the Greek state, for example, in Constantinople and Alexandria.

The Adrianople basin, ceded to Greece after the Great War, is different in climate and productions from the rest of the Kingdom. It is a scantily populated steppe land, except for the more fertile valley of the Maritza Adrianople, in size the second city of Greece, is at the junction of this river and its tributary the Tundja and

on the trade-route which here leaves the Maritza valley to go to Constantinople.

As mining and manufacturing are undeveloped in Greece, the chief towns are merely trading centres, the only exception being Athens, which is the seat of the government, situated in what is now almost the centre of Greece. It is built on the site of the ancient Athens, under the steep hill known as the Acropolis with its ruins of wonderful buildings. The modern Athens is a fine city several miles from the coast, and the trading and small industrial concerns are at its port, the Piræus, which has a good natural harbour on the Ægean Sea. Athens and the Piræus together have a population of over 300,000 inhabitants.

Salonika is as large as Athens; it has more than local importance as a commercial centre, for it is at the exit of the Vardar route though a few miles from the delta of the river. It serves as a port for Jugo-Slavia, under an agreement between the two countries.

Albania.—The area of Albania is a little larger than that of Wales, but its population is less than one million. As explained above, the state is of very recent formation, and it is doubtful if it can be carried on successfully without help from more advanced states. There is little unity among its people, for the southern and northern groups speak very different dialects; moreover, two-thirds of the people are Mohammedans, and the Christians of the south belong to the Greek Church while those of the north belong to the Roman Catholic Church. These differences could be overcome, but the people have had little to do with one another and no training in working together. Indeed, in the north, they are divided into clans between whom feuds are carried on accompanied by bloodshed and murder, even worse than the famous

vendetta which used to exist in Corsica. The establishment of order and of a settled government is the great problem of this country; if that problem is solved the Albanians may live a fairly prosperous life, for they are industrious and intelligent and their flocks and fields can supply most of their simple needs. The towns are small, Scutari is the largest and Durazzo, the port, is quite small, for the Albanians trade but little with other countries.

Jugo-Slavia.—The official name of this country is "The Serb-Croat-Slovene State," and the name well expresses its constitution. Its area is rather less than that of the British Isles, and its population is about 14 millions.

The new state will have to overcome difficulties some of which resemble those of Albania, for it is composed of differing elements. The distinction at the present time between the Serbs and the Croats is not one of race, but rather one of religion, for nearly all the Serbs of "old Serbia" belong to the Greek Church, and those inhabitants of the Serbo-Croat lands of Bosnia, Herzogovina, and the northern plains who also belong to the Greek Church call themselves Serbs, while those who belong to the Roman Catholic Church call themselves Croats; still further west, the Slovenes are practically all Roman Catholics. Moreover, there are a considerable number of Mohammedans, who, even when not racially different from the Slavs, are known as Turks.

Differences of language also exist. The Serbs and the Croats speak the same Serbo-Croat language, but they write the words in different characters, the Croats using the same (Roman) alphabet as the peoples of Western Europe, but the Serbs use the same letters as the Russians, which resemble those of the Greeks. The Slovenes have

a different dialect, though they and the Serbo-Croats can understand one another.

The inclusion of Bulgarians in the south, and still more markedly the inclusion of Magyars in the north, increase the complexity, but the Serbians, unlike the Albanians, have long had an organised state, while the more western Jugo-Slavs have had some experience in local self-government under the Austrians.

Just before the collapse of the Austro-Hungarian monarchy, representatives of all the Jugo-Slavs in that state met at Zagreb and proclaimed their desire to unite with Serbia, and a few days later a National Assembly of the people of Montenegro deposed their King (who had fled from the country during the Great War) and proclaimed their union with the other Jugo-Slavs.

From the economic point of view Jugo-Slavia may be divided into three regions : (i) the Dalmatian coast and islands ; (ii) the mountain-and-valley land near the head waters of the Save and south of the line formed by the Save and Danube ; (iii) the hill-and-plain land north of this line.

(i) Dalmatia has the Mediterranean climate and the associated productions. The vine is the chief source of wealth and wine and olive oil are exported. The amount of cultivable land is very limited, and the people have become famous fishermen, getting many kinds of fish, particularly sardines. The water-power of this region, as well as that of the upper basins of the rivers flowing eastward, is considerable and already is used to some extent in the making of chemicals. The limestone of the hills and the good harbourage enable portland cement to be made and exported cheaply at Spalato, which is the chief commercial centre.

(ii) The mountain-and-valley lands draining to the Save and to the Danube below Belgrade, together with

the upper part of the Vardar basin, have the Central European type of productions. Maize is the chief crop, barley is increasingly grown, and wheat and oats are also obtained. The vine is widely cultivated, but the wine is mostly consumed in the country; there is, however, a large trade in prunes, *i.e.* dried plums, and other fruits of the kind cultivated in England grow well. Tobacco is another product.

Much of the country is perhaps better suited for keeping animals than for agriculture, but the work has been handicapped by the disturbed conditions, and it is not yet carried on as scientifically and successfully as it might be. Nevertheless, the number of cattle, sheep, goats, and swine is quite considerable. The forests of beech and oak, and at higher levels of pines and firs, might yield a greater return if they were better managed.

The towns in this region are small: Sarajevo on the Bosna-Narenta route, Uskub (Skoplie) and Monastir (Bitolia) in the upper Vardar basin, and Ljubljana (Laibach) on the upper Save, are the only ones needing mention.

(iii) The hill-and-plain land north of the Save-Danube line is also mainly agricultural; the low hills are covered with woods and vineyards, and the plains are either lands ploughed chiefly for maize or wheat, or meadows on which cattle are kept.

In all the occupations of Jugo-Slavia there is the possibility and probability of a considerable increase. The nature of the productions, and the situation of the country (cut off from the Adriatic by mountains, and elsewhere surrounded by countries which obtain similar goods) do not favour trade. The largest towns of the state are on the Danube and Save, between the mountain and plain type of country; Zagreb is on the upper Save,

and Belgrade is at the junction of the Save and Danube. Belgrade is at present a small town of about 100,000 inhabitants, but it will probably grow rapidly as the capital of the new State.

Fiume.—This city forms a tiny independent state. Its commercial importance is of recent growth, since the Hungarians connected it by railway with the interior and constructed docks and quays for the shipping. It is still the Mediterranean outlet for Hungary and northern Jugo-Slavia, and unless Italy and Jugo-Slavia divert the traffic to other routes (which would be a great economic loss) the state should have a prosperous future. The city and its suburb Sisak together have a population of over 100,000 people, of whom rather more than half are Jugo-Slavs, and less than half are Italians, and a small number are Magyars.

Bulgaria.—The kingdom of Bulgaria now has an area about equal to that of Scotland, and a population of about five millions. This population is, of course, predominantly agricultural, and most of the peasants have small holdings of arable land of their own, while woodland and pasture-land are owned by the communes, and the members of these have rights of cutting wood and grazing their animals. The people are hard-working and are slowly adopting improvements learnt from Western Europe. Consequently, there is not the poverty of large numbers of people which is found in many other countries, and the region was not devastated by war. If Bulgaria has been unfortunate in loss of territory, her people have not been left in want. Wheat is the chief crop, maize coming second, and barley third; vines are widely cultivated and fruit widely grown. The upper valley of the Tundja, which is sheltered from the north by the

Balkan Range, is particularly fertile, and here are the gardens from which attar of roses is obtained.

As in the other Balkan States minerals are abundant, but little worked; the possession of coal and iron will probably lead in the future to a development of manufactures.

The largest town is the capital, Sofia, but this has little more than 100,000 people; Philippopolis, on the Maritza, comes next. The trade with other countries is not great, and the ports, Varna and Burgas on the Black Sea, and Ruschuk on the Danube, are only small towns. It must be remembered, however, that through Bulgaria passes the railway traffic between Central Europe and South-Western Asia.

Turkey.—Turkey in Europe has been reduced to very small proportions. It consists of little more than the city of Constantinople and the neighbouring country.

Moreover, the whole region known as the Zone of the Straits, including Constantinople and the country on both shores of the Bosphorus, the Sea of Marmora and the Dardanelles, has been placed under international control. A Commission appointed by the League of Nations is to supervise the waterway and to ensure its freedom to ships of every nation both in peace and in war. This is regarded as an important matter, for otherwise a state holding territory on either side of the Straits could block the passage and so, as Turkey did in the Great War, cut off all maritime communication between the Black Sea countries and the rest of the world.

Constantinople on the shore of the Bosphorus commands this route, and also the land route from Europe to Asia, which is broken only by this narrow waterway. With the development of Asia Minor and of Mesopotamia, the land route will have increasing importance.

In earlier times (before the sea route to the East was discovered) this was the chief road by which people migrated, armies marched and traffic was conveyed between the two continents, and so Constantinople had a situation which made it one of the most noted cities in history.

Its name was given to it by the Emperor Constantine, who made it for a time the capital of the Roman Empire, and although it suffered from political changes it was for many centuries the finest city in the world. After its conquest by the Turks it declined in commerce, and was considerably altered ; mosques were built, and it took on a more Eastern appearance. Now it is partly European and partly Turkish both in aspect and in population, for of the million inhabitants half are Mohammedans and half Christians.

EASTERN EUROPE

Eastern Europe is remarkable because it has suffered very little from the geological disturbances which affected the rest of the continent ; it is therefore in the main a great lowland with so little relief that it may fairly be called an enormous plain. Apart from the Ural Mountains which bound it towards northern Asia, and the mountains of the Crimea and the Caucasus which bound it on the south, there is practically no area over 1000 feet in height, and even though the map may show a difference of colour indicating that the ground is 500 or 600 feet above sea-level, yet the distances in these regions are so

great that where the slope up to the higher ground is gradual, it could not be noticed.

Also the lack of geological disturbance has allowed the sedimentary layers, of which most of the surface is made, to remain soft and loose ; this is an advantage for agriculture, but there is a lack of stone for making buildings and roads. Indeed, roads are very bad indeed over much of the region, and this greatly hinders communication.

The only exceptions to this general condition of flatness and softness of surface are due to glaciation in the north, and to some geological dislocations in the Ukraine, that is, the south-western region which lies north of the Black Sea and the Sea of Azof.

Only the part of Russia in the far north which adjoins Finland was affected by the last invasion of the Ice Sheet (see Fig. 1), but a considerable region of the north-west was covered by its second extension. The line of glacial heights south of the Baltic is continued in a great curve to the White Sea, and near this line are some of the chief elevations of the plain, the Valdai Hills reaching a little over 1000 feet above the sea. This line also marks out broadly the water-parting between the rivers flowing on the one hand to the Baltic Sea, and on the other hand to the Black and Caspian Seas.

The Baltic rivers are therefore relatively short ; the Niemen and Dvina (Düna) are the chief, and the Neva, which drains Lake Ladoga to the head of the Gulf of Finland, is the river on whose marshy banks Petrograd (St. Petersburg) was built.

This part of the country clearly shows the effect of the ice. There are many large and small lakes ; others are partly drained and form swamps, while marshy ground is very extensive. The surface is irregular with gravel and morainic blocks mingled with the clay which forms much of the ground.

On the south-eastern side of the line, conditions are very different. The rivers are much longer; the Dnieper flows to the Black Sea, the Don to the Sea of Azof, and the Volga to the Caspian Sea. The Volga drains a great part of central and eastern Russia, and is the longest river in Europe, but its value as a waterway is much lessened by the fact that it flows to an inland sea. The trade of Astrakhan, at the mouth of the river, is largely that carried on between Russia and the Asiatic lands across the Caspian Sea. Because of the flatness of the land there is an exceedingly small slope in the river's course; it has therefore little power to cut a valley, it winds very much and can scarcely drag along its burden of sand and mud; consequently this is dropped at particular points and forms shoals and sandbanks which hinder navigation, and before entering the Caspian Sea the river divides into a number of more or less parallel channels.

The Don and its tributary the Donetz flow to the Sea of Azof, which communicates with the Black Sea by a strait with a channel navigable for vessels of moderate size. The Dnieper and its tributary the Pripet flow directly to the Black Sea, and parallel with the greater part of the Dnieper is the Bug. On the northern shore of the Sea of Azof are several ports of medium size, the largest of which is Rostof-on-Don, but these have less trade than the ports on the more open Black Sea at or near the mouth of the Dnieper.

Much of the basin of the Pripet is an enormous marsh, the site of a great lake when the ice-edge lay to the north. Most of the region of central Russia which was covered by the ice-sheet only in its furthest extent (see Fig. 1), has recovered from the interruptions of the drainage (as was explained in the section on Central Europe), and the surface has been levelled and covered with a sandy soil of fair fertility.

Still further south is the country never covered by ice, but near enough to it to receive from the rivers fine clay particles, and from the strong winds which blew southward the still finer dust which forms the loess soil. This is the "Black Earth Region" where the natural richness of clay and loess has been increased by dark-coloured accumulations of vegetable material from the natural grasses which grew up and died down each year through many centuries before man interfered.

In the country bordering the north shore of the Black Sea and the north and east shores of the Sea of Azof the loess deposits give place to a brown soil, not quite so rich as the black earth, and as the climate is drier this is naturally a poorer grassland, and is known as the "Steppe Zone."

Further east is the low region (below sea-level) north of the Caspian Sea, over which this great salt lake once extended; even apart from the dryness of the climate, this is very poor land, for the retreat of the water has left some regions still swamps and others covered with a salt soil on which nothing will grow.

The far north-east of the Russian plain is a glaciated region now drained northward by the Northern Dvina to the White Sea, and by the Petchora to the Arctic Sea. Much of this is marshy or liable to flood, especially the coastal districts.

The effects of glaciation have been pointed out; it is now necessary to consider the effects of geological dislocations in the Ukraine. Here there is a great mass of old, hard rock similar to the upstanding blocks of Central Europe, but it has been uplifted to a less height, so that it does not appear clearly on the map, yet its presence is shown in a number of ways. The last uplifts were even later than the Ice Age, and the rivers have not been able to cut down their valleys smoothly, so that rapids appear.

This is most marked in the case of the Dnieper, so that its course below Ekaterinoslav, in the southward-flowing part of the river, is obstructed by rapids and is unnavigable; hence, although there are many boats carrying goods on the part above Ekaterinoslav, and many others on the lower course, there is no connection between the two systems.

The Dnieper in its obstructed portion flows through a deep and narrow valley, and so do the Bug and the Dniester further west, where they also cut through the Ukrainian plateau-country. The Ukraine therefore has more relief and more diversified scenery than the Russian plains.

Above Ekaterinoslav the Dnieper has a high right (west) bank and a low left (east) bank, the former called the hill bank and the latter the meadow bank. So, too, have the lower Don and the Volga above its long and narrow delta. Because of the liability of the meadow bank to floods, the towns are built on the hill-bank, *e.g.* Kiev on the Dnieper and Saratov on the Volga.

A most important effect of the block-structure is upon mineral deposits. In the great curve of the Dnieper where it breaks through the block, and the corresponding country further east in the angle between the Donetz and the lower Don, are the greatest coal and iron deposits of Eastern Europe. The Russian plain is almost without minerals, the chief exception being a small coalfield near Tula south of Moscow.

The Ural Mountains are another block, raised to a much greater height than the Ukrainian block and spreading out broadly in the south. In the central region near Perm, coal and iron are found, and nearly all the world's supply of platinum has come from this district; copper and gold are widely distributed in the Ural region except in the northern part.

The Crimean and Caucasus Mountains are of the

folded type : they were continuous with the Balkans, but a great subsidence caused the break between the Balkans and the Crimea, while a lesser fracture made the strait of Kerch. Quite recent faults in the Caucasus allowed volcanic material to be poured out on top of the highlands, so that the great volcanic cone of Elbruz reaches a height of 18,000 feet, and the similar cone of Kazbek, although lower, is nevertheless higher than Mont Blanc.

The Caucasus Mountains are like the Alps in many ways ; they have forests and upland pastures with fertile valleys ; but they also have varied and extensive mineral deposits, and they resemble the Carpathians inasmuch as on their margins there are valuable oil-wells, notably on the northern side and in the peninsula where the mountain range projects into the Caspian Sea near Baku.

Climates and Vegetation Regions.—The temperature curve for Moscow in Fig. 3 shows the " continental " features of a long, cold winter and a fairly warm but short summer. It cannot represent, however, the whole of this vast region. In the summer the heat increases towards the south ; in the winter the cold increases towards the east, *i.e.* further from the influence of the mild Atlantic winds. Consequently the north-east is much colder than Moscow and has a very severe and long winter and a short and only moderately warm summer, while the Ukraine is warmer than Moscow with a relatively mild and short winter and a longer and hotter summer.

As regards rainfall, Moscow may again be taken as a standard of comparison ; it has on the whole a light rainfall which comes mostly in the summer (see Fig. 4). This amount decreases towards the east, and the lack is especially felt in the south, for the greater heat of summer evaporates the water so rapidly that the country is dry soon after the rain has ceased. The south-east is therefore

parched, and the region round the Caspian Sea is almost a desert.

In the winter the cold causes snow instead of rain; this lies on the ground till spring, and then melts so quickly that although the rivers become rushing torrents for a little while, they cannot carry off all the water and the land is flooded.

This hindrance to navigation follows the long period during which the rivers are frozen over. At Archangel the freezing lasts for about six months, at Moscow about five months, and in the Ukraine about three months. Hence, in a country where roads are bad, these various interruptions to river traffic are serious. Because of the warm waters passing round the Scandinavian peninsula, the Lappland coast is free of ice even in the winter, and therefore the port of Murmansk has been constructed here and connected by a long railway with the central part of the country.

The combined effects of soil and climate cause great differences in the vegetation. From this point of view Eastern Europe (excluding the bordering mountains) may be divided into the following regions :—

(i) In the far north is the tundra like that described in the section on Northern Europe.

(ii) South of this as far as a line from Lake Ladoga to the Southern Urals, *i.e.* nearly as far as the upper course of the Volga, is the region of coniferous forest, little cleared, yielding some rye and oats, and with a very scanty population, except in the mineral-producing districts near the Ural Mountains.

(iii) South-west of this, including the glaciated area in the west and a little non-glaciated area near the middle Volga, is the region of deciduous forest, now considerably cleared except in the Pripet Marsh region where it is still almost untouched. In this not very fertile area,

the growing of rye and oats, less wheat and barley, and also flax and hemp, together with pastoral work, are the main occupations of a rather scanty population, if the few large towns are excepted.

(iv) The Black Earth Zone from the Ukraine to the middle Volga was a grass-land, but has now been taken into cultivation and is very productive. Here great amounts of wheat, barley, and maize are produced; animals of all kinds and poultry are kept. Consequently, apart from the towns, there is a fairly dense agricultural population. With its mineral resources in addition this is the most important region of Eastern Europe.

(v) South-east of this, the Steppe-land Zone is only in part utilised for agriculture. It is still in the poorer districts a grass-land, covered with snow in winter, but with a rapid growth of grasses and a brilliant blossoming of flowers in the spring. In the heat of summer the grasses wither and die down, other plants have only bulbs or roots remaining in the ground, and the country looks bare and parched. Here pastoral work is carried on, but not many people can get a living. This type of country extends to the wooded foothills of the Crimea and Caucasus.

(vi) Around the Caspian Sea are the salt-steppes and salt-marshes, with very little vegetation and very little life.

THE EAST BALTIC STATES

(Esthonia, Latvia, and Lithuania)

These three states were formed in 1918 after the break-up of the Russian Empire, but they began their existence in so troubled a way that three years later their boundaries were not fixed, and consequently their area and population were not known at all accurately. Their

total area is larger than that of England and Wales, but their combined population is small, about six millions.

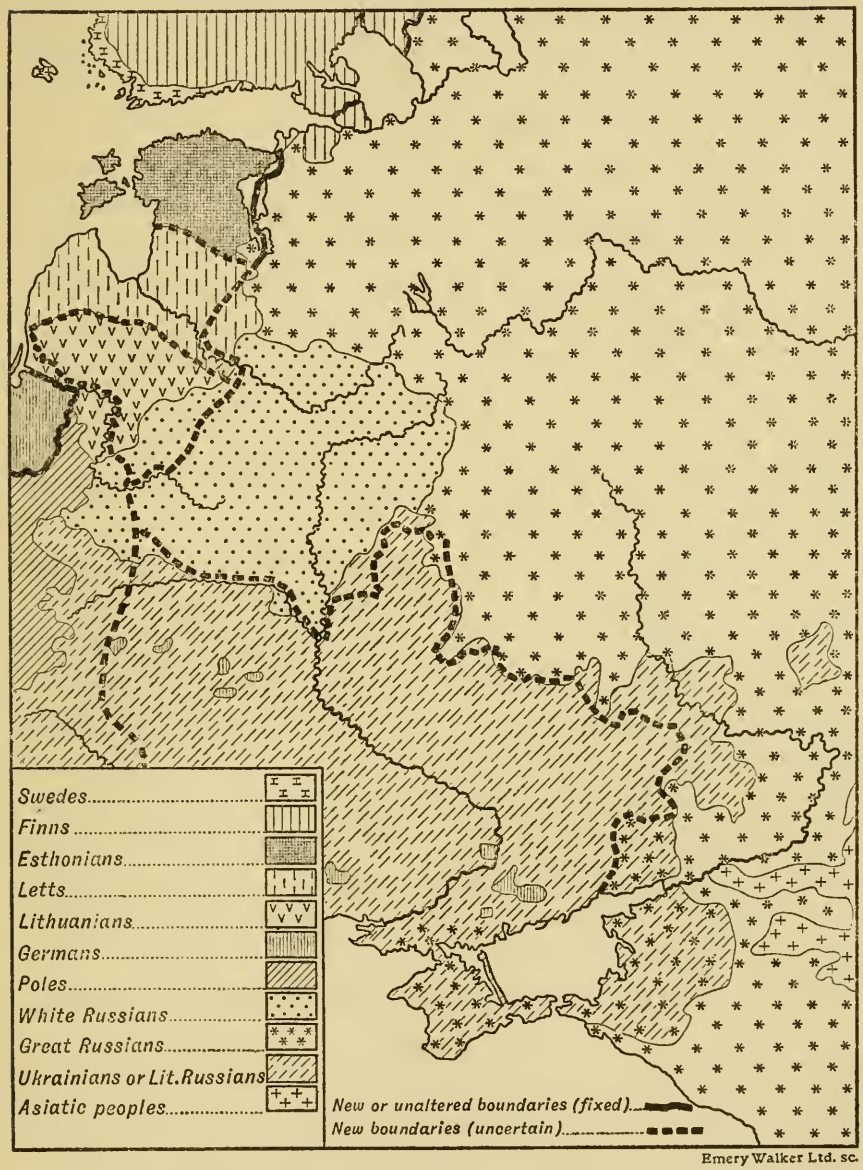
The Ests or Esths are of the same race as the Finns, and are like them in appearance and customs, and their language is like the Finnish language. The Letts or Latvis of Latvia (sometimes called Lettland) must be grouped with the Lithuanians; they are both of the Northern race, but form quite a distinct branch from that of the Germans and Scandinavians. Their languages are unlike any others of Europe, but are somewhat like each other. Though in regard to race the northern of the three states stands apart from the remaining two, yet in their recent history Esthonia and Latvia have gone together while Lithuania has a different story.

Many centuries ago the Ests and Letts were conquered by the "Teutonic Knights" from Germany, whose descendants, known as Balts, have until quite lately been the nobles and landowners, even after Russia obtained the country in the eighteenth century. The "Baltic Barons" of Esthonia and Latvia were the educated people, who owned the land, built the towns, and made the country like an outpost of Germany; the Ests and Letts were ignorant peasants and hated the Balts. An old Lett folk-song * shows the feeling of the Letts towards the Balts, and suggests the condition of their chimney-less cottages of a hundred years ago.

"Oh, poor German guest!
What wouldst thou in our wretched hut?
Thou canst not stay in the yard,
For in the yard is wind and rain.
Thou canst not stay within,
For within is smoke.
Listen! I will advise thee!
Go to the bottom-most place of Hell,
Where the Devil makes his fire.
No rain there, German! No smoke there!"

* Quoted from "The New Eastern Europe," by Ralph Butler.

After Esthonia and Latvia were absorbed into the Russian Empire, the new masters tried to make the



9. Peoples of Eastern Europe.

country Russian, but did not succeed. Perhaps the greatest change was that some of the Ests and Letts were

helped to buy small areas of land from the Baltic Barons. Yet most of the natives were landless, and one great reason for their demand for independence was their desire to own the lands on which they worked ; the land will now belong either to the peasants who cultivate it or to the state as a whole.

Lithuania was conquered by Poland, and consequently Polish nobles were the owners of the land ; then Russia obtained Lithuania as part of Poland, and when the Polish nobles attempted to rebel against the Russian Government the whole country suffered. In Lithuania, as in Esthonia and Latvia, and indeed in all the east of Europe, the peasants have a great " land hunger," for such land as under Russian rule they obtained from the Polish landowners was not sufficient for their needs, and many of them were forced to emigrate.

The land of these three states is not on the whole fertile ; a considerable proportion of it is still covered with forest, and the surface of the remainder is partly covered by lakes, marshes, or peat-bogs, partly sandy and partly clay. The latter is naturally the best, and where the marshes have been drained good crops of hay and grain can be obtained. Rye is everywhere the chief crop, oats and barley coming next. Potatoes have been widely grown, but not only for food : alcohol has been distilled from them. Flax is another important crop grown partly for the fibre for linen and partly for the seed. The farming includes also the keeping of all kinds of animals.

There is a marked difference in the agriculture of Esthonia and Latvia on the one hand, and of Lithuania on the other. The Baltic barons carried on the work with German thoroughness, and on the whole made the best of the natural conditions, while the Polish landowners were careless and wasteful farmers. Consequently the peasants differ, for they learned from their masters, but

the fact that the land is now their own will encourage all of them to improve their methods.

The forests are cut for timber, of which much is exported, and fishing is another important resource of these countries. Minerals are almost entirely lacking, and manufactures are very little developed, the only ones of any note being the making of food products such as alcohol and beer, flour, and linseed oil. A little cotton and linen manufacture and some engineering are carried on at Riga and other ports.

The position of these countries between central Russia and the Baltic Sea is of great importance. Riga, the capital of Latvia, owes its growth to the fact that it was one of the chief ports of Russia; its exports of timber, flax, and bacon came from the interior, and the local trade of Latvia was very small. Though the water is frozen for three months, ice-breakers were used which usually kept a channel free, and this gave it a great advantage over Petrograd in the winter. Before the war Riga had a population of over half a million; but by 1921 this had fallen to a little less than half that number.

Similarly Reval, the capital of Esthonia, was a Russian port, although ice-blocked for longer than Riga; it had less traffic and is a smaller city. Latvia has a much more westerly port in Libau, which is practically always open, and dealt particularly with exports of grain. Lithuania is unfortunate in having no port, but it is expected that Memel taken from Germany will be allotted to the new state.

Russia, therefore, had a great incentive to retain these states, as they form such an important gateway. Moreover, when the Russian power collapsed, Poland wished to possess Lithuania once more, while the Baltic barons managed to get a German army in Latvia and Esthonia. There was, therefore, a struggle between

the native peasants on the one hand and Poles and Germans on the other, while the Bolshevik rulers of Russia also occupied much of the land. Thus the people of these countries had to fight a threefold enemy before they gained their independence, and they began their history heavily handicapped ; their future will depend upon their ability to work the land successfully and upon arrangements being made with Russia to continue the trade between that country and the western world through their ports.

THE UKRAINE

The region included under the name of Ukraine has not up till now been at all definite. The word Ukraine means Borderland : it was applied to the region south of the early Russian state and on the edge of the great steppe lands which extended from Asia into Europe. These steppe lands were the home of the wandering shepherds and herdsmen who, mounted on horses, not only accompanied their flocks and herds, but also as warriors from time to time overran the settled lands of south-eastern Europe.

The original Ukrainians, or Little Russians, long ago formed part of the same state as the Great Russians, the capital of this old state being at Kiev on the Dnieper, at that time just within the forest belt. Gradually the southern forest dwellers spread out into the black earth region, where the fertile open country offered them a better living than did the forest clearings. Here the Ukrainians settled, but their position in this border-land was dangerous, inasmuch as they were exposed to the invasions of the steppe peoples, particularly the Tatars. To protect themselves against these enemies, the tribes of the lower Dnieper region organised themselves into

warrior bands, and called themselves Cossacks, but these were different from the more eastern Cossacks of the Don and Volga Basins, who joined the Empire of the Great Russians.

The Ukrainians sometimes pressed forward over the open country, sometimes were driven by the nomads back into the forests. For a time they were under the Polish power, and at last were absorbed in the growing Russian Empire. Between the horsemen of the steppes and the soldiers of the greater northern powers, they have been harried and their development has been prevented, but they have kept their nationality and even under Russian rule have preserved their own language, customs, and manner of life.

There has, therefore, never been a definite and independent state of the Ukraine until quite recently, although the Ukrainians have gradually spread over all the black earth region and much of the steppe lands, even as far as the Caucasus mountains and far into Siberia. After the collapse of the Russian power in the Great War, a Ukrainian National Council was formed which in November, 1917, proclaimed that the new state should consist of nine of the provinces of south-western Russia (excluding the Crimean Peninsula), in which the great majority of the people are Ukrainians.

The area of this region is about that of Great Britain, and its population is about 35 millions, of whom four-fifths are Ukrainians, the remainder consisting mainly of Great Russians and Jews. There are probably as many, or even more, Ukrainians left outside this region as there are non-Ukrainians included within it, but the greater part of the Ukrainians outside the Ukraine are not in Russia ; they are in Rumania or Poland, or have migrated to America.

The Ukrainians are easily to be distinguished from

the Great Russians. The languages of the two peoples are so different that they cannot understand one another, in spite of the fact that for many years the Russian Government would allow no other language than Russian to be used in the schools, churches, and law courts of the Ukraine, and forbade the printing or sale of any book or paper in the Ukrainian language. This language is said to be more like that of the Serbs and Croats than that of the Russians, and certainly in physical characteristics and appearance the Ukrainians seem more akin to the Jugo-Slavs than to the Great Russians.

In customs, too, there are marked differences. The holding of land by the members of the village in common which was forced upon the peasants by the Russian Government was hated by the Ukrainians, who are more independent than the Russian peasants, and desire to own their own pieces of ground and cultivate them in their own way. They are not naturally communists, in the same way that the Russians are communists, though the farmers trade through local co-operative societies which are themselves combined into large unions.

In the Ukrainian villages of the open treeless country the peasants' huts are largely built of clay, thatched with straw, while those of the Russians are of wood; the Ukrainians pride themselves on the fact that their homes are much cleaner than those of the Russians, and that each of them is surrounded by an orchard, and not built into one long street in the Russian fashion. Where Ukrainians and Russians live in the same district their villages are built on a different plan, and are quite separate from one another. Yet the Ukrainians, even if superior to the Russians in cleanliness, would be considered by people of Western Europe to be living in very unhealthy conditions, and diseases such as typhoid fever, diphtheria, and malaria are prevalent. Their education,

too, is very poor indeed, as must be the case after the Russian attempt to destroy their language. In almost every way, the Ukrainian peasants have yet to learn how to live finer lives, and this they will do, for they have many good qualities. For example, though very few of them can read or write, they have a wealth of unwritten proverbs, parables, and poems ; songs known to all are constantly sung : New Year songs, poems for spring and harvest, hymns of worship, long poems of their past struggles against their oppressors, and of the lives of their national heroes.

The loss of the Ukraine was the most important of those which followed the break-up of the Russian Empire ; not only because of the population of 35 million people, but also because this country formed the most productive portion of that huge Empire. It included the western and better-watered parts of the black earth and steppe regions, which were the great grain-fields producing mainly wheat, and to a less extent, barley, maize, oats and rye. From this part came the wheat exported to Britain and other countries of Western Europe, but it is very doubtful if this tribute of grain will continue, even after the country has settled down again to peaceful production. For here, as in Rumania, the export came from the estates of the great nobles while the peasants who had insufficient amounts of land were frequently wanting food. Now that the nobles have disappeared, the peasants among whom their estates have been parcelled will probably grow food for their own use. The production, moreover, will probably be less, for the uneducated peasants have, as a rule, the most primitive methods and implements in their agriculture. In the east, grain is less important, but beet is grown for sugar, and potatoes are grown partly as food and partly for alcohol. In the northern part, especially in the Kiev district, tobacco is

obtained, and will probably become more important as trading facilities are improved. The love of the Ukrainian peasants for orchards has led to a widespread production of fruit, although the region is naturally of the grass-land and not of the tree-land type. Pastoral work is carried on everywhere in close connection with the agriculture ; every farmer has some live-stock, and cattle and pigs are taking the place of sheep now that the land has become cut up and more fully used.

The mineral wealth of the country is very important. The Donetz coalfield is remarkable because its coal is largely anthracite, the most valuable form ; the eastern part is beyond the limits of the Ukraine. The great iron-field is at Krivoy-Rog, halfway between Ekaterinoslav on the Dnieper and the port of Nikolaiev. Salt exists in large amounts in the Ekaterinoslav region. The coal and iron deposits rank with those of Central and Western Europe, and mining and manufacturing on a large scale will develop. The beginnings were there before the Great War, for British, French, Belgian, and German business men had invested their capital and organised an industry, supplying skilled foremen and obtaining unskilled labour from the peasants who found difficulty in getting a living on the land. So the industries began, and the production of agricultural machinery and iron and steel work for buildings and railways reached some importance, but the conditions of labour were very bad, for there was no effective supervision by the government such as has gradually developed in Britain during a hundred years of factory laws. There were also industries of sugar-refining, tobacco manufacture, leather-working, and flour-milling.

Trade has been greatly hampered by the lack of good roads and the inadequate arrangement and management of the railways. But the Ukraine has the best ports of

Eastern Europe. Odessa, away from river mouths, has the advantage of being usually open in the winter; Nikolaiev has a deep channel in the river Bug; Kherson is on the chief river, the Dnieper, but there is a difficulty in keeping a good channel up to the town; these three ports share between them most of the trade of the Ukraine. Kharkov is an inland trading centre, where great fairs are held at which traders from all parts of the Ukraine and southern Russia sell and exchange their wares. At Kiev, a similar fair is held once a year, but the town has more importance as a centre of railway and river traffic, and as the capital of the Ukraine. It has a population of about 500,000 persons.

The trading classes in the towns are either Russians, Jews, or Poles; in pre-war times only about one-quarter of the people in Kiev were Ukrainians.

Because of the earlier conquest of the Ukraine by Poland and its later conquest by Russia, the landowners were, until the Great War, either Poles or Russians. Hence, after the Ukrainian peasants had seized the opportunity given by the break-up of the Russian Empire to turn out the foreign nobles, both Poland and also the leaders who tried to get power in Russia attempted to regain the Ukraine. The country was fought over by armies and ravaged by bands of brigands, while the peasants endeavoured to keep possession of the lands and cattle, hiding their grain and goods from the invaders.

The future of the country is very uncertain; it seems probable that Poland will retain East Galicia, even though it is inhabited by a majority of Ukrainians (there called Ruthenians), and the most hopeful solution of the conflict between the Ukraine and Russia would be an alliance which would allow that close co-operation between these two countries which is demanded by their geographical situation and resources.

RUSSIA

The development of Russia came much later than that of the nations of Central and Western Europe. As was stated in the section on the Peoples of Europe, the Great Russians (who form the bulk of the population of the present state of Russia in Europe) long ago migrated into the forests of the upper basin of the Volga River. The Russian power began in the state which had its capital at Kiev, but developed in its present form at a later date in the state of Muscovy, situated just within the forest belt around the town of Moscow. The rulers of Muscovy gradually extended their dominions outwards in all directions, and as the conquest proceeded so Russians settled among the peoples of the new lands; hence, on the outskirts of Russia in Europe, as well as in Siberia, there is a mixed population.

The first great movement was eastward through the Siberian forests, where Russian adventurers sought furs from the forest animals and ivory from the walrus of the northern coasts; they conquered the land in their advance and even reached the Pacific Ocean. The monarch who increased the power of Russia most markedly was Peter the Great. He brought the country into touch with the more civilised states of Europe, extended his rule to the Baltic Sea, and in 1703 built Petrograd in the marshes by the broad river Neva, having whole forests cut down and used as piles to form a foundation; the city was nobly planned and has splendid public buildings.

He also reached the sea in the south by capturing Azof. To hold the Black Sea coasts meant, however, the subjection of the Asiatic or half-Asiatic tribes of the steppe lands, for Tatars had invaded this region in the thirteenth century, others such as the Kalmuck and the Kirghiz came later, and these peoples carried on repeated

warfare with the Russians. The steppe land dwellers organised themselves into " Cossack bands " of horsemen, who fought against all the surrounding peoples, and not until they were suppressed or joined the armies of the Russians did the southern land and the Black Sea coasts become open to Russian colonisation ; the region was effectively settled only in the nineteenth century.

Thus before the Great War the Russian Empire included all Eastern Europe and Northern Asia, a total area of over eight million square miles, with a population of about 170 million people. The break-up of the Empire during the war caused the loss of great areas, and it is impossible to say what regions, especially in Asia and the Trans-Caucasus, will remain under the new government. If the European region alone is considered, and Poland, the East Baltic States, Finland, Bessarabia, and the Ukraine excluded, the area of the new state would be about 1,600,000 square miles (thirteen times the size of the British Isles), and the population would be between 70 and 80 millions.

The Russian Emperor or Tsar was an autocrat, ruling of his own will, and assisted in the government by any people he chose. Under him were a multitude of governors, councillors, officials, and police, who were frequently corrupt and used their position not to carry out the laws justly, but to gain their own advantage. Hence the people were oppressed, and yet for the most part accepted this state of things, partly because they had never known a better one, partly because they are naturally submissive, and almost entirely uneducated. Most of the peasants lived in their small villages, largely isolated from the rest of the world, trading but little and very seldom meeting any but their neighbours. They knew only the noble who was the great landowner of his district, his servants, the local officials and police, and

the village priest, and from none of these came to them education or a movement for improvement in any way.

In the towns a middle class grew up because of the industries, the trade, and the various professions which were carried on there, and from this middle class arose educated people who demanded reform and tried to spread their ideas among the poorer workmen and the peasants. Such attempts were met by the government with floggings, imprisonment, and exile to Siberia, but the seeds of rebellion fell upon ground prepared by discontent both in town and country. The rising industries in the towns of Russia, like those of Poland, were carried on under miserable conditions, and in the country was a great land-hunger. Up till 1861 all the land, except that belonging to the Crown or the Church, was in the hands of the nobles, and the people were merely serfs, but at that date serfdom was abolished, and a part of the nobles' land was allotted to the peasants, on a gradual-payment system. The land was not, however, to be owned by individuals, but by village communities, or mirs, and the mirs divided it among the families for their use for a period of three years. At the end of each period of three years the land was re-distributed again among the people. This mir system had two great defects : as the land was used by each family only for a short time there was no incentive to improve it or even keep it in good condition, and so it got into a bad state and yielded poorly ; secondly, as the population increased the shares got smaller and smaller, and the people could not get sufficient food. Thus the land-hunger became acute, and peasants and factory workers joined in a revolution which broke out in 1905. This was put down, but the Tsar decreed two reforms : a Duma or Parliament was set up and given certain limited powers, and a new land system was begun.

In the Great War the conditions of the people, both at the front and at home, became most wretched ; the corrupt government was quite incapable of feeding and supplying the armies and of keeping up the industries and transport of the country itself. In 1917 the soldiers revolted, and the old government fell ; for a few months the leaders of the Duma tried to establish a new one, but they failed, and a small number of soldiers and extreme Socialists or Communists, called Bolsheviks, seized the power by violence, and set up a different form of government. The movement was most active among the soldiers and the town workers, but the peasants were glad to get rid of the nobles and divided up the lands among themselves.

The Bolshevik government obtained a firm hold on central Russia, with their headquarters in Petrograd and Moscow, and made peace with the Central Powers. They were attacked, however, by men who desired their overthrow, and who for that purpose gained adherents in the border lands, such as Siberia and South Russia, invaded the central region with help from foreign states who objected to the Bolsheviks, yet were all in turn defeated. Also, long after the Great War was over, the western powers maintained a blockade of Bolshevik Russia, and did not permit trade with it.

Thus a succession of calamities overwhelmed the country and brought it to the verge of barbarism and savagery. An account of it which was true in 1913 would be quite inapplicable to the post-war conditions. Much of its industrial life practically disappeared ; the railway communications within the country broke down ; commerce ceased. When in the spring of 1920 the western powers removed the blockade, very little trade took place : almost the only imports in the remaining part of that year were a small quantity of agricultural

implements and potatoes for the starving population of the great towns ; in the same period the exports consisted mainly of some cardboard and plywood.

It is necessary, however, to distinguish clearly between the country and the towns. In the former the dislocation and loss was greatest in the border regions fought over by the contending armies, and plundered by soldiers who, when their side was defeated, scattered and fled almost aimlessly in country far from their homes.

The central region was less injured, and some of the peasants were better off than before, because of their greater share of land ; the breakdown of traffic and trade affected them little, for they were almost self-supporting even in normal times.

In the towns it was far otherwise, for the means of livelihood were reduced or destroyed, and few of the people had money or goods with which to buy food from the peasants. The Bolshevik government believed in the state owning all the factories, railways, and land, and managing all the production and trade. They therefore tried to supply the needs of the town populations by getting food to some small extent from abroad, but mainly from the peasants. Although they believed that land should only be held by the community, they found it impossible even to try to interfere with the peasants' possession, and limited themselves to obtaining part of the produce. The peasants resented this, there were sometimes conflicts between them and the Bolshevik guards, and the food supply which reached the towns was quite insufficient. Similarly, although the government tried to organise the production of clothing and other necessaries, raw material and coal were lacking, and people went half clad and could not heat their houses in the bitterly cold and long winters. Disease and death were the consequence, and the population of the towns decreased

greatly. Before the war Petrograd had a population of over $2\frac{1}{4}$ million; in 1921 it was estimated that it had fallen to about one-quarter of that number. Moscow before the war had nearly two million people; it was reduced to about one million by 1921. Petrograd was an artificial creation of the Russian Tsars; it therefore suffered more than Moscow, which was not only the old capital, but the natural centre of the country and the seat of the Bolshevik government. Other centres of industry and commerce, which suffered similarly, are Tula, an iron and steel manufacturing town near the small central coal deposits, Perm, the centre of the eastern mining region, and the large trading towns on the Volga: Kazan, Samara, and Saratov.

In the area between the Black and Caspian Seas, so far from the region of Moscow in which the power of the government was centred, and with such a large admixture of non-Russian peoples in its population, various republics were set up; the two across the Caucasus, Georgia in the west and Azerbaijan in the east, are most likely to remain as independent states.

The new Russian government is so different from the British system that some account of it must be given. In the first place the Bolsheviks founded their rule on violence and maintain it by force: they believe that the whole system of carrying on industry by private individuals for their own profit is wrong, but they realise that few of the people share this opinion, and they therefore think it necessary to force their system on the country until such time as the mass of the people come to accept it voluntarily. They stamp out opposition ruthlessly, and at the same time try to teach the people, and especially the children in the schools, their doctrines.

The second feature of the method of government is not of necessity bound up with the Bolshevik rule: it

may persist even if the Bolsheviks are driven from power. It is the system of governing by means of various Soviets, *i.e.* Councils, and is therefore called the Soviet system. In Britain the members of Parliament are each elected for some particular district in which each person votes for the candidate whom he prefers ; thus the method is one of *direct* voting, and the group of voters is simply a local or *geographical* one. Now the Soviet method is different. The group of voters is not always a geographical one ; for example, the people working in a particular industry may vote together so that the group is an industrial one ; again, where people of different races live in the same region, each racial group votes together. Also, whereas in Britain as a rule a man has only one vote, in Russia he may have several : he may vote with his racial group, again with his industrial group, and again with a local group of all the residents in his district.

Secondly, he does not vote directly for a member of the Russian Committee which corresponds with the British Parliament. In each group he votes every week for a member of a Soviet for his district ; thus in his industrial group he votes for a member who will represent his views in regard to his work, and in his racial group he votes for another to see that his own people are properly treated. Hence, a large town has delegates from the various industrial, local, and racial groups, and these together form the combined Town Soviet. Then each Town Soviet, and similarly each Village Soviet or Country District Soviet, elects a delegate to the All-Russian Congress of Soviets which meets at Moscow and is re-elected every six months ; this in its turn elects the Central Executive Committee. The Central Executive Committee corresponds with our Parliament, and appoints the actual members of the government who are called the Commissaries of the People.

In theory every one may vote, and in theory if any delegate to the Town Soviet does not please the people who voted for him he can be replaced by another next week, and similarly any delegate to the All-Russian Congress or even any member of the Central Executive Committee can be removed in six months. But under the Bolsheviks only a proportion of the people are allowed to vote, and the government is in the hands of a few men. Moreover, whatever government may be in power, it can be really democratic only when the people are sufficiently educated to understand the problems, to choose men able to represent their views, and to see that the actual working-out of the laws is in accordance with their wishes ; as yet even fewer of the Russians than of the other peoples of Europe have reached this stage of development.

Nevertheless, the Russian people have played, and will again play, an important part in the life of Europe, not only because they provide such goods as grain, eggs, dairy produce, timber, flax, leather, oil, and platinum, but also because they can give ideas which are not so commonly found among the western nations. This is because they look at life so differently from the western Europeans.

As a nation they are not so interested in what may be called material comforts and conveniences, and make little effort to get them, but live in the simple way their more advanced neighbours did two hundred years ago. It is perhaps this lack of interest in mechanical contrivances that makes them such unsatisfactory workers at all sorts of mechanical processes. It is said that a Russian has only to look at a machine for it to go wrong, and though, of course, this is an absurd exaggeration, it is certainly true that a traveller in the most distant and un-European parts of Russia will find an Englishman or German in charge of the machinery at mines or managing a factory.

But the time and energy which western Europeans spend in making life more comfortable, the Russians use on what may be called things of the spirit. They are in a simple way deeply religious, and they accept as the will of God misfortune against which we should struggle. For the same reason men and women will suffer untold hardships to go on a pilgrimage to some holy place, sometimes travelling to purify their own souls and sometimes to remove some moral stain from their village community. It must be remembered that outside the towns the people live together in such a close community that they think an irreligious man can cast a blight, or a holy man can shed virtue, throughout his village.

Like all simple people, they are credulous and superstitious, and though they are patient in suffering they can be horribly cruel when they are roused, so that massacrés (or " pogroms " as they are called) of Jews and others who are supposed for some reason to injure the life of the community have been common occurrences. The credulity of the Russians also makes it easier for politicians to lead them into excesses.

Their art is very unlike that of western peoples, whom it attracts by its strangeness, and various simple forms of art are means of expression to the Russians, among whom writing is not yet common. Much can be learnt about them by studying their pictures, dances, toys, and embroideries ; there one finds their love of simple design, strong rhythm and bright colour, their disregard for accuracy, and a liking for all gay things that cause laughter. To the western mind they often appear like children, but only a Russian can really understand the Russians.

CONCLUSION

EACH of the states having been described in turn, it is now possible to consider in a more general manner the European group of peoples and to point out how they have influenced and still influence each other, and how they have extended their influence to all parts of the world.

It has been shown that in the various regions of Europe nations have grown up, some of them (particularly in the western portions of the continent) favoured by their circumstances, while others (particularly in the east) have had to contend against unfavourable conditions, and only quite recently have begun their development. Where in a suitable environment, the people have in themselves certain qualities, these qualities have been able to find expression and the nation has advanced and also led the way for other nations. In the Mediterranean region the civilisation of the western world developed. Here, among the ancient Greeks and Egyptians, were the beginnings of arts and science, and even to-day the architecture and statuary of ancient Greece are among the treasured possessions of all Europe. Similarly, on the laws of Rome have been founded those of many states, and till quite recently, the Roman roads, even in Britain, were the best means of communication. In the Middle Ages the artistic genius of the Italian people found in their beautiful land the stimulus to painting, and their easy circumstances enabled a school of painters to grow up and to hand on their slowly-acquired skill; this art was transmitted to other peoples, and Dutch, French, Spanish,

and British schools of painting owed much to the Italians.*

So in other arts, in scientific knowledge, and in the development of democratic government, the various nations have made special contributions to the common advance; one may mention, for instance, in music, Germany; in the art of printing, Holland, Germany, and Britain; in literature, Italy, France, Germany, and Britain; in science, Britain, Germany, and France; in the growth of democratic forms of government, Switzerland and Britain; in co-operation in industry, Denmark; in industrial developments, Britain and Germany; in education, Switzerland, Germany, and Britain.

Moreover, nations develop characteristics which give them what may almost be called a " personality "; of this France gives an excellent example, for she has a standard in taste which has led other peoples to study her ways of life. From all parts of the world people go to Paris to study in her Schools of Art and her University, to admire the wonderful city and its galleries, and to visit the theatres and concert-rooms, while the Parisian fashions are more often followed than those of any other country.

It has also been shown how the countries are connected in their work and trade, so that economic prosperity depends upon their co-operation. Barriers between nations diminish the common good and conflicts destroy it. If the Europe of to-day is considered, it will be found that many barriers to trade exist because of national jealousies, while there are serious possibilities of further conflict.

The nations still fear one another, and within the

* As one uses maps for most aspects of geography, so collections of pictures and statuary from various countries should be studied in public galleries, for in these matters there is no barrier of language such as that which hinders a comparative study of literature and science.

various states there are minority populations whose discontent may be the seed of revolution or warfare. The war broke down the great Empires and released subject nations, but the new states still contain alien peoples, though their numbers are much smaller. On the other hand, the feeling of nationality has been intensified, and so people are less likely to tolerate government by others.

Moreover, especially in Central and Eastern Europe, the war has caused the injury or destruction of the means of life for large numbers of people, and poverty and disease are common. This is not only a menace to political peace, but it makes the work of the people so much less efficient that recovery even to the amount of prosperity they had before the war must be very slow, and all Europe is affected by their lessened production.

Under these conditions the more favoured nations, including Britain, find it to their own interest to assist the war-stricken countries, and it is to the advantage of all the states to co-operate in the League of Nations to prevent the recurrence of warfare and its attendant miseries.

In addition to their influence upon one another, the greater nations of Europe have reached out and affected almost all parts of the globe. They have sent out emigrants who have peopled most of North America and Australasia, they have conquered and partly peopled South America and Africa, and they have gained power over a considerable part of Asia. No land inhabited by man has escaped their influence.

Explorers discovered lands hitherto unknown to Europeans, and usually inhabited by peoples living a different kind of life and having different ideas. After the explorers, followed traders desirous of getting strange or valuable goods, farmers or miners wanting the produce

of the ground, and missionaries anxious to teach the natives another religion, to educate them, and show them better ways of life. Some of these Europeans had high motives, others were selfish and cruel; some gave help to the peoples, others took their lands or even kidnapped them and sold them as slaves. Even without intending to do so, the Europeans introduced new vices such as the drinking of spirits, and new diseases which in some cases literally destroyed whole populations.

Besides these actions of individual Europeans, there are the actions of the European states which gradually asserted their power over most of the lands of the world, so that a few powerful nations of Europe acquired very great colonies or possessions. Where the climate of the newly found lands suited the life of white people colonies were established, and even when these broke away from the mother country (as the United States did from Britain) the ideas and the ways of living were still like those of the parent country.

Where the climate did not allow white people to live easily, there was another motive for the acquisition of the lands. The states of Western and Central Europe have stores of coal which have encouraged the development of manufactures for which raw materials are required, and the consequent growth of a large industrial population which cannot be fed upon the agricultural produce of the country. Tropical regions can supply many raw materials and various foods, and with proper development their production can be greatly increased. Also the industrial regions of Europe require markets in which the manufactured goods can be sold, and the natives of tropical regions may become purchasers of these wares.

It is therefore a temptation to an industrial state to annex such regions in order that the trade may be developed for its own advantage, and even if the state does

not intend to limit the trade of the region to its own manufacturers and merchants, yet it may think it prudent to prevent other states doing this, and therefore to declare the region a " dependency " or " protectorate."

Even where no political power was asserted, as in the case of China and Japan, the nations of Europe had great influences ; for example, they opened up trade relations, lent capital and built railways and factories, established or assisted schools, and gave examples of government. Japan has been a willing pupil and in consequence must now be reckoned as one of the great powers of the world, and even the ancient civilisations of those slow-moving countries of India and China are gradually being changed.

Because of these relationships and influences, the nations of Europe, including Britain, are not only responsible to one another, but they are responsible to practically all the peoples of the world.

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