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THE PROBLEM METHOD
IN GEOGRAPHY

BY
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Fairbanks Topical Outlines of Geography

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THE PROBLEM METHOD IN GEOGRAPHY

The chief aim of the Problem Method is to teach the children to think their Geography instead of memorizing it.

From time immemorial general geography has been largely descriptive and school geography has been no exception. As long as the idea persisted that geography was essentially a description of the earth and man, or the earth as the home of man, so long was it impossible that children should be taught to acquire their geography by any other means than the memory. But little by little our conceptions of geography have changed. We are now coming to see how much more there is to the subject when we make the relation between facts rather than the facts themselves the object of our study. We now study the earth and man in their **relation** to each other.

The present movement in school geography is toward a conception so different from that which has prevailed that few teachers yet recognize its far reaching consequences. The old geography asked "what and where is the largest city in the

United States." The coming geography asks "what is there about the environment of New York which has made it the largest city in the United States." Facts when studied in the light of their relationship have far more value for us than when studied for their own intrinsic worth and constitute far better geography.

The problem method is simply the application to school geography of the principle involved in the little word **why**. A question using the word **why** is the simplest form of a problem. This point of approach calls into action the reasoning powers of the children rather than their memories, and it results in their discovering a higher truth, involving far deeper and more real knowledge than the mere memorizing of facts can ever give.

There is nothing mysterious about the problem method. It simply attempts to lead the children to think rather than to memorize, and in so doing opens the way to real geographical knowledge about the earth and its inhabitants. Two ideas lie at the foundation of the problem method and we must understand them before we can expect to handle it successfully. The first has already been mentioned and is that the New Geography is *not* a description of the earth and its inhabitants. It attempts to discover the significance of earth facts in their relation to life and especially human life. The New Geography views the earth as an organism with functioning parts. The meaning of each

of these parts (facts) lies in the discovery of its relationship to the other parts (facts). The second idea at the foundation of the problem method is found in the answer to the **why** which must be reasoned out by the pupils from given data; the ability to reason about distant and unseen lands being dependent upon a thorough familiarity with Home Geography.

We speak of the "problem method." Just how are we to go about reducing the complex details of the broad subject of geography to problem form? Referring again to the example before mentioned we say "What has made New York the largest city in the United States"? This question or problem calls up many facts such as bays, rivers, surface of the land, climate, mountains, valleys, canals, railroads, products, etc. To answer this problem involves investigation and thought on the part of the pupils. We might call it a question but the sort of question which cannot be truly answered by memorizing and repeating statements taken from some book. By stating the fact that New York is the largest city we indicate that the fact of size is not the geographical answer sought, but rather—what are the causes which have made it such. From the point of view of the old descriptive geography the pupils would be asked a question about the largest city but not one which involved a **why** thought.

The thought method, exemplified in problem,

opens up wonderful possibilities for the expanding vision of the child. Geography takes on a new meaning for geography is no longer made up of cold, dead facts but becomes a thing of life.

The principle which is revolutionizing geography and which makes the use of the problem so appropriate is that of **cause and effect**. Things do not happen fortuitously but in every case an event, fact or phenomena has its cause. The discovery of the relation between them makes them understandable. People carry on farming in the valleys and mining in the mountains *because* of the different conditions existing in the two regions. The United States imports tropical products *because* its climate is temperate. The United States exports wheat *because* the soil and climate are favorable to growing more than the country needs. It is in getting at the relationship between facts—the reasons for things being as they are and our doing things as we do—that it has been found convenient to develop the geography lessons in the form of questions, or problems as they are now commonly called. Since this process calls for thought on the part of the pupils, the writer has used the term “thought method” and “problem method” interchangeably. The term “project” has come into use for certain general problems but as it is confusing and serves no real purpose it is not used in this discussion.

The problem method is really very simple and

easy to handle when once its fundamental basis is understood. That it must be understood if the teacher would use it is the reason for emphasizing it from different points of view in the present discussion. The acquirement of geographical knowledge through the problem or thought method is diametrically opposed to the old method of learning facts. They stand for two entirely different conceptions of geography. Many writers on the New Geography fail to appreciate the possibilities of the problem method and the extent to which it can be used and insist that the committing to memory of facts must still be required for the pupils. Making facts the aim is inconsistent with the basic principles of the New Geography. According to it facts are merely bits of information and to stop with them is to fail of attaining real geographical insight. The problem method has been looked upon as a "frill" valuable in adding to the attractiveness of the subject but not capable of replacing memory drill upon "locations" and other facts the acquirement of which has been considered an indispensable part of an education. Many teachers still insist that the "fundamental facts of geography" can be acquired only through memory drill.

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introduced a large number of facts in the light of their **relationships**, thus giving the pupils a real understanding of these facts. This is true geography. It appeals to the pupils as something worth their best efforts. It appeals to the teacher because of the increased efficiency of her pupils, produced by a less expenditure of mental energy. The principle illustrated in the above problem is applicable to the whole field of school geography. Problems can be introduced which bring in all the different physical features of the earth, features which the children have ordinarily been asked to memorize. Through problems we can take up cities, industries, products, trade and various phases of life conditions in different lands.

Notwithstanding that in real life not one of the thousands of facts associated with the above topics exists by itself free from the influence of others, yet we have for years filled our text-books with column after column of bald statements of such facts with little attempt to get at their relation to each other. We have called this geography, little realizing until recently that we have stopped with the shell of the subject and never reached the meat within. Even should we admit the assertion of the old-time teacher that facts constitute geography and that there is a certain minimum number of them which we should have in our minds subject to call, then we say that the problem or thought method accomplishes all this and a

thousand times more in introducing the children to a real conception of how life and environment work together to make the world as we know it.

THE RELATION OF THE PROBLEM METHOD TO HOME GEOGRAPHY

The successful application of the problem method to world or regional geography depends upon previous training in Home Geography. To say nothing of the value of home geography in itself, the subject is so tremendously important from the point of view of the geography that reasons out its conclusions from given data that any comprehensive discussion of the problem method should show the part that home geography of necessity plays in its operation.

We cannot expect the children to reason out their lessons in geography without first giving them some basis upon which to work. If the lesson is upon Spain and they have before them a good physical map, they cannot come to any independent conclusions as to the life conditions of the inhabitants and how these are in large part determined by elevation, slope of the land, winds, etc. without first having gained a simple understanding of the influence of similar features upon the lives of the people in the region in which they live. There is no place in our country where the environment does not have more or less influence upon the distribution, activities and general life conditions of the

inhabitants. Children who have never been outside of the Mississippi Valley would perhaps have the most difficulty in reasoning from home conditions to those of Spain. Pictures are always available, as are stories of travel and adventure. The slight relief of the land even in the most mountainous districts will also afford material aid. The differences in the soil and vegetation between the uplands and the stream bottoms, the occurrence of frosts, the winds, the location of the towns, the position of the roads, etc. will assist the child who has been led to understand their meaning in gaining a reasoned knowledge of distant lands. Children living in or near mountainous districts will of course find no difficulty, when properly directed, in translating a knowledge of the meaning of the local environment into conclusions as to the climate and life conditions of similar distant lands that they are studying.

Take for example the following problem:*
“Why is the rolling upland extending along the eastern base of the Appalachian Mountains, and known as the Piedmont region, more thickly settled and highly cultivated than the Coastal Plain though the latter is more easily reached by water and has for the most part a fertile soil”?
In almost every neighborhood there can be found geographical relations similar to the following which are helpful in interpreting the problem.

* See topical Outlines of North America, Fairbanks.

The soil of the bottom lands along the streams is deeper and richer than that of the uplands, but the bottom lands have the disadvantage of being subject to floods. In places they are marshy. The presence of mosquitoes makes them unhealthy. The natural vegetation is dense and difficult to clear away. If the streams are navigable the bottom lands are, however, more easy to reach than the uplands. The hill lands are cooler and healthier. Vegetation is less dense. The surroundings are more attractive. The streams run more swiftly than they do in the lower valleys, and afford power for running machinery. Further studies should be directed toward finding out the relative depth of the ocean waters along the coastal plain, danger of floods from high tides in connection with river floods, whether the early settlers reached both regions from the land side or from the ocean. The children can get other help from their history stories, from maps, and from the study of their home environment.

Another problem* illustrates how an understanding of the mountain and plateau environment of our country aids in getting a real understanding of the similar regions of Persia. "Why do so many of the inhabitants of Persia lead the life of poor nomads since permanent homes are so much more pleasant and free from dangers and hardships"? The children come to Persia after having studied

* See Topical Outlines of Asia, Fairbanks.

their own country and discovered the influence of mountains, plateaus and winds upon climate and how all these things together determine the occupations and manner of life of the people. This knowledge of the home geography can be carried directly over to Persia and used as an aid in interpreting life there since the region of the western United States is mostly a plateau inclosed by mountains.

The plateaus of the western United States are inclosed by mountains which cut them off from the influence of the ocean winds. Hence they have a light rainfall and are cold in winter and hot in summer. The industry to which the region is naturally adapted, aside from mining, is the raising of cattle and sheep. The map shows that Persia is a little farther south than Nevada and ought to be warmer. The fact that Nevada does not grow Persian melons and grapes is further evidence that the Persian climate must, in many places at least, be warmer. In Nevada extensive irrigation systems are making it possible to carry on farming. In Persia the lack of rain has led to the practice of irrigation from time immemorial, but since the people are backward their irrigation systems are crude and insufficient to support a large population. Since the rainfall is generally too light for farming, nearly all the villages and cities are built near the permanent streams.

Just as in the case of Nevada, the inclosing

mountains of Persia do not cut off all the rain. There is sufficient for a sparse growth of shrubs and grasses. Hence over the greater part of Persia where there is little or no water for irrigation stock raising is the chief industry. In order to find feed for their flocks, these people who depend upon them must be continually moving from one place to another. In summer they ascend the mountains and higher plateaus, just as the stockmen do in our own Western Country, and in winter they descend to the valleys. Since they are continually moving such people cannot build permanent homes but must live in tents.

Children instinctively want to know the reason for things being as they are. The problem introduces the material of geography in such a way as to answer that longing to know *the why* of what they come in contact with, whether it is in real life or in a geography textbook. The problem method not only harmonizes with the fundamental principles of the New Geography—is in fact an expression of these principles—but it completely accords with the psychology of the child so that its use is sanctioned by the best pedagogy.

The simplest form of the problem, and the one commonly used, is a question of such form that it is capable of being expressed by the word *why*. The simple question is, however, not the best sort of a problem but the easiest for the teacher to formulate. To put a problem before the children

in the most effective way we should word it in such a manner as to make its solution appear worth while. If we can make the geography so interesting that the children will go at it spontaneously, we shall get much more thorough and lasting results than if they are driven to the task. The best way in which to stimulate interest is to introduce an antithesis or unexpected contrast into the statement of the problem. This is by no means an easy thing to do, but when the ability has once been acquired, the teacher will find that the quickened response from the children is worth all the effort.

To ask "Why did the Germans go through Belgium to attack France" is the simplest as well as poorest way to state a problem in geography relating to the World War. There is nothing in particular about the question to arouse interest or curiosity. But to say "Why did not the Germans, since their country adjoins France, take the direct route into the latter across the boundary line instead of attempting the long roundabout way through Belgium" at once arouses curiosity on the part of the pupils to discover the reason for the unexpected course taken.

The question "Why has Los Angeles become the largest city in California" has nothing about it to arouse interest on the part of those not personally familiar with its environment. But put in the following form it arouses the curiosity at once—

“Why has Los Angeles, situated in a region of light rainfall some miles from the ocean and having at first sight few of those advantages which are usually necessary to make a great city, become the largest city of California?”

☞ If we apply the problem method to such topics as the relief of the land, climate, winds, ocean currents, etc., which are usually presented in the textbooks in chapters by themselves as so many scientific facts, they lose their cold, lifeless character because their direct influence upon living things is brought out. The Sierra Nevada Mountains, for example, form a very important physical feature of the Western United States. As a fact alone this has no particular interest for the children. But as soon as they are led to see that in spite of the fact that these mountains form a very serious barrier to trade and travel, and aid in making a desert of Nevada, they are nevertheless so necessary to the development of the Sacramento San Joaquin Valley that this great lowland could never become rich and prosperous without them, the study of these mountains becomes very attractive.

In the case of the winds and currents of the Atlantic Ocean, problems can be introduced the solution of which will bring out their influence upon early navigation and the discovery and settlement of the American continents. The Gulf Stream, the Labrador Current, fogs, westerly

wind belts, trade winds, etc. can thus be vitalized.

Examples of various sorts of problems might be added to indefinitely. In many cases the short simple form of a problem is necessary to save time. In other cases problems cannot readily be put in any other form than a simple question. In all cases, however, the purpose must be to provoke thought rather than to lead to mere memorizing.

HISTORY AS A MOTIVE IN THE PROBLEM METHOD

The motive from history can be used to great advantage in the problem method. In the study of North America the experiences of the early explorers and settlers particularly can be used to vitalize its basal geographic relations. It will be readily appreciated that even if a large amount of history is introduced into the problems it is used, not for the purpose of teaching history, but with the object of making the geography more alive. It increases very greatly the interests of the children in the physical features of the continent to have their attention directed to the manner in which the environment influenced the lives of both the pioneers and their descendants. Take for example this problem:* "Had the ocean currents any influence upon the settlement of North America?" The ocean currents are taken up not as a physical feature of great bodies of

* See Topical Outlines of North America, Fairbanks, p. 10.

water, but as helping or hindering the voyages of the early discoverers. Handled in this manner the study of ocean currents takes on a new significance in the minds of the children. Or this problem:* "What difficulties did the settlers encounter when they tried to push inland?" Here we have a question concerning the nature of the country extending inland from the New England coast. The physical obstacles encountered affected the lives of the pioneers, and so with the motive of their experiences we vitalize the climate, relief, streams, soil, etc.

One might ask, why not let history alone and study the influence of the environment upon the people living in the region today. The answer might well be that the present is often better understood in the light of the past, while in the case of young pupils the lives of explorers and settlers in a new land are more attractive than the seemingly commonplace relations of the present.

Throughout the study the historical development of people in different lands should be made use of wherever it will add life and interest to the geography. We must remember that school geography fulfills best the purpose for which it is taught when attention is focussed upon the human side of the subject because the interests of the children lie in that direction. But at the same

* See Topical Outlines of North America, Fairbanks, p. 26.

time the physical side must not be neglected because in it lies the explanation of a large part of the life conditions which geography seeks to understand. The present life conditions are so much more understandable as well as interesting if we learn how they came about that the use of history is abundantly justified.

The advantages resulting from using problems from history in developing an understanding of the geography of a region shows how intimately certain aspects of the two subjects are related. In developing the geography motive from history the teacher should, however, be on guard lest the history aspect replace the geography in the centre of attention.

THE PART PLAYED BY MAPS IN THE PROBLEM METHOD

In no respect is the change in geographical methods and ideals more marked than in the estimate placed upon maps and map study. The new **Thought Geography** is absolutely dependent for its successful application in the school room upon good physical maps. The trouble at present is that there is a lack of large clear physical maps in the school geographies. The situation is not so bad as regards physical wall maps since several publishers issue excellent ones, but few schools are as yet supplied with anything but political maps.

The children should have access either in their

geography textbooks or in an Atlas to physical maps which are large and clear enough to give them fairly correct and detailed notions of the different regions studied. In the problem method we ask the children to reason from the physical map of the local region where they can observe more or less fully the effect of prevailing winds, slope of the land, and elevation upon the life of the inhabitants to similar effects of winds, slopes and elevation upon the people of distant lands. The children cannot reason out correct conclusions about distant lands by means of the thought method unless the representations of these lands expressed in the form of maps give them the necessary basis. To be able to see in a physical map of a distant land the surface and other features for which it stands, the pupils should first be thoroughly drilled in interpreting the physical map of the region about the home.

How dependent we are upon the physical map is shown in the case of the following problem:*
“How can we account for the fact that France has a mild moist climate while the interior of Spain is dry and exhibits great extremes of temperature. From previous studies of North America it has been learned that the prevailing wind in the temperate zone is westerly. The study of the Pacific Coast showed that these westerly winds off the ocean bring rains and that these rains reach far

* See Topical Outlines of Europe, Fairbanks, p. 75.

inland unless there are mountains lying in the way that cut them off. The lands exposed to the ocean winds were found to have a mild even-tempered climate while the highlands lying back of the mountains, as for example those of Nevada, not only receive little rain but are cold in winter and hot in summer. Except where irrigation can be developed or there are minerals which can be mined, Nevada is, therefore, not suited to farming but is suited to raising cattle and sheep. For this reason the population as a whole must be small and scattered.

Since the region concerned in the problem lies in about the same north latitude as the United States it must be subject to westerly winds which bring rain off the Atlantic Ocean as our winds bring rain from the Pacific. The map shows us that all the high mountains of France lie in its eastern part, and that the western part is low and open to the Atlantic. The whole of France should, then, be well watered and the lowlands near the ocean possess a mild and even tempered climate such as our Pacific lowlands have. Agriculture should be the leading occupation and the farming population dense and prosperous.

Turning now to Spain we conclude from an examination of the physical map that life conditions must be very different from those of France. The mountains which lie all about the borders of Spain interfere with the sweep of the westerly

winds. The interior is high like that of Nevada. We should, therefore, expect the climate of these highlands to be dry, the winters cold and the summers hot. We conclude, then, that the plateau of Spain is sparsely settled except where there is water for irrigation and that in most parts stock raising is the leading industry. Furthermore, the Spaniards as we know them do not make as good farmers as Americans so that we should expect them to be poor and not have as comfortable homes as our farmers or as those of France. From the above brief analysis it can be seen how much can be learned about a foreign country merely with the aid of a good physical map and a knowledge of home geography.

Other problems, such as the following, must also be answered from the physical map. "How has the surface of France favored Paris becoming the capital and largest city?" "At what points on the western coast of France should we look for important seaports?" But in the case of the problem "Why did not the largest Mediterranean city of France grow up at the mouth of the Rhone River" the answer must be obtained partly from the map and partly from collateral reading.

There are, of course, many problems with the solution of which the map is not directly concerned, but for thought geography in general, physical maps are so important that no effort or cost should be spared in supplying the pupils with the very

best obtainable. The political map has its value for certain purposes, but for the New Geography mere location of boundaries, cities and other cultural features upon so-called political maps which show the relief of the land so faintly as not to reveal to the children the reasons for the distribution of such features, possesses much less value than they do for the old-time memory geography.

There are many other maps besides the physical which are invaluable aids in teaching the thought geography. Among these are rainfall maps, forest maps, temperature maps, agricultural maps, racial maps, etc. The common outline product maps, with which the standard textbooks are filled, possess value of a certain sort for the advanced student and statistician but for the thought geography of the elementary school they are almost worthless since they contain no indication of the *causes* which make the distribution of the products what it is.

THE TOPICAL OUTLINES OF GEOGRAPHY—FAIRBANKS

The purpose of the Outlines is to supply a brief hand-book covering the whole field of elementary geography from the thought or problem point of view. While the Outlines are strictly what their name indicates, yet they include with the exception of Home Geography, such a wealth of detail illustrating every important phase of the subject as to make it possible to use them as a basis for the entire course.

The Outlines show further how completely the new thought geography can dispense with the memorizing of facts through the use of these facts in problems requiring thought and investigation for their solution. The value of problems in developing a real knowledge of the relationship between the earth and its inhabitants, and thus incidentally taking care of facts instead of making them the aim, fits this method to be the exponent of the New Geography the aim of which is an understanding of the world as a *living organism*.

THE PLAN OF THE TOPICAL OUTLINES

The Outlines are suited for use either as a supplement to some standard text-book or as substitute

for such text in classes provided with physical maps and supplementary reference books.

The course is a progressive one, taking up each region or country but once. Cross questions and comparative studies keep the salient ideas of the ground previously covered, fresh in the mind. The effort is directed toward fixing an understanding of facts rather than the facts themselves. Though the individual facts may later fade from the memory yet the ability to interpret facts from geographic point of view whenever and wherever they are met will remain.

The work of the Outlines is offered under the following heads: Map Studies, Problems, Subjects for Oral and Written Reports and Reviews. For the most part the continents are taken up first from the point of view of their *natural regions*. In the cases of Africa and parts of Asia political boundaries are of little aid in getting a knowledge of the geography and are not emphasized. No fixed plan is followed through all the continents other than that of presenting the matter in such form as to get the children to think. Hence the treatment of each continent differs in some respects from that of the others. A striking feature, and one which should appeal to teachers, is the topical summary at the head of each natural region or country. Each summary embodies in terse language the striking and important characteristics of the area the study of which immediately follows.

The handling of the Map Studies requires little help and explanation. Nearly all the questions and problems under this head can be answered with the help of a good physical map. The teacher can either go over the map questions with the class or the pupils having been asked to work them out beforehand they may be taken up in recitation. This work should be carried on with open books and before a wall map, the constant effort being to develop thought rather than memory. The pupils should be taught to draw conclusions from answers to the map questions whenever this is possible. For example: "How does the coast line of the Southern States differ from that of New England?" Important consequences for the people of the region result from the nature of the coast. What are they?

Some of the map questions as in the following cases are thought questions or problems. "Why ought the whole of the interior of France to receive heavy rains?" Compare with Spain. "Why is there no great river system in Asia similar to those in North America, South America and Africa?"

HOW TO USE THE PROBLEMS IN THE TOPICAL OUTLINES

It will be observed upon looking over the problems that there are many kinds. Some of which fulfill our definition of good problems while others are simple questions. All, however, call for,

thought responses on the part of the pupils. It may be first appear strange that the *facts* which under the old geography the children were expected to memorize and recite upon with their books closed, are in the Outlines stated outright, being used as the data of the problems. This results from the shifting of emphasis from the *fact* to the *cause* of the fact and can be expressed by the word *why*. This is the most characteristic feature of the New Geography. In the problem "How can we account for the salt-water lakes upon the borders of the Mississippi delta" it will be noted that the fact is stated and the cause asked for.

Many of the problems are analyzed and answered in skeleton form, but it will be noticed that in most cases the answer given is suggestive for further thought and consideration. Most of the "Special Problems" are left unanswered for the purpose of testing the pupil's comprehension of the subject.

Two queries might be raised regarding the manner of handling the problems throughout the Outlines. The first is that since the many of the problems are answered in skeleton form will not the pupils be able to get the larger part of their lessons by merely memorizing these answers? The second has to do with the unanswered problems. Will not the pupils find many of the latter very difficult or even impossible to answer? In preparing the Outlines the author had in mind the

needs of both teachers and pupils. It is obvious that no set of unanswered problems would at present be accepted by the teachers owing to the newness of the method. On the other hand if all the problems were answered it might appear that the pupils had their thinking all done for them and only had to memorize the results.

Enough of the problems have been answered in skeleton form to give an idea of the basis method to be followed. The unanswered problems should be worked out in a similar manner. The teacher who would like to avoid giving any work that could be memorized might neglect the answered problems and substitute others bearing upon the same topics. As will be seen later the answered problems can be handled without permitting the pupils to memorize them but in any case the teacher should not ask for or accept work which appear to have taken directly and entirely from the text.

If the Outlines contained all the possible problems on a given region it might seem that the plan followed was seriously defective. It is, however, a cardinal principle of the New Problem Geography that it is not so much a matter of just what is acquired as it is the habit of thought developed. Besides this the very nature of the problem method gives opportunity for a choice of several different lines of approach to a given topic. If one line of approach proves too difficult or fails to arouse interest the teacher can choose another. The

thing that we are after is an understanding of the subject and it makes little difference just what route we take to get there. Any particular problem in the Outlines is one of many different ones which could be proposed to deal with the topic in hand. If the teacher wishes to use any particular answered problem given in the Outlines the children should be asked to verify the answers, enlarge upon them, draw conclusions and consequences from them, etc.

Take, for example, the comprehensive problem introducing the study of the British Isles, Europe, page 34. The particular sub-problems under which different aspects of the main problem are studied are not the only ones which could be given. Many might be omitted and yet the desired end be attained by approaching them from other points of view. When the pupils are through with the British Isles the New Geography does not expect their minds to be crammed with a great array of facts but it does expect that they understand the relation existing between the people and their environment, why their life conditions are as they are and why certain industries are carried on to the neglect of others. When statistical facts are wanted the pupils should be so trained as to be able to get them from an Atlas or encyclopedia.

We might state the general problem of the British Isles in a variety of ways such as the following:—

Why is it that the people of the British Isles, the surface and climate of which are favorable to farming, did not at the outbreak of the World War raise more than one third of their food supplies but permit a great part of their fertile lands to lie idle or be given over to pasturage? Why is it that the people of the British Isles have neglected farming and turned to manufacturing and trade, since being surrounded by water an enemy might cut off their food supplies? What conditions have made the people of the British Isles the greatest manufacturers and sea traders in the world?

Problems in which the resources or industries of two countries are compared offer marked incentives for their study, as in the following (Outlines of Europe, page 47). "Why would Spain, although a part of continental Europe, suffer almost as much as Great Britain if cut off from communication by sea?" What is the explanation of the fact that stock raising is important in Spain because the climate in most parts is too dry for farming while in the British Isles it is important because the climate is wet?" In the first problem there is stated a similarity between the two countries in case of war although they are very differently situated. In the second the same industry is favored by entirely different climates. Both problems tend to arouse the curiosity and afford an incentive for working out the geography.

To illustrate again how an answered problem

can be handled let us take one from New England (Outlines of North America, page 25). "What are the particular dangers of navigation along the New England coast?" This problem might be put in a more attractive form as follows:—Why is it that the New England coast is such a dangerous one in spite of the deep water and the many protected bays? Each of the three parts of the answer given in the Outlines should be investigated by the pupils and not taken for granted. A good physical map will help in understanding the first part. In the second the reason for the fogs should be discovered. In the third the pupils should find out what influence, if any the long narrow bays of the New England coast have upon tidal currents.

It is self evident that those problems which are not answered require thought and investigation on the part of the pupils. If they cannot find any material bearing directly upon a given topic the teacher can often lead them to the conclusion sought by means of a number of indirect but skilfully planned questions. The following problem will illustrate the procedure:—"Why is it that the little country of Palestine much of which is poorly watered and not particularly attractive contains people of many different races, such as Jews, Arabs, Turks, Syrians, Armenians, etc.?" It is not likely the children will be able to get much help from their geographies in solving this problem. We will assume that they have had practical

training in home geography and through their history stories have gained some ideas of the people of ancient Greece, Egypt, Palestine and Mesopotamia, and finally that they have before them a good physical map of Western Asia and the Eastern Mediterranean region. The teacher should lead in a discussion of the climate of Syria, Palestine and Arabia and how the lack of rain has affected the habits and customs of the people. The influence which the great desert of Arabia, lying to the eastward of Palestine, must have had upon lines of trade and travel between Egypt, Greece, Persia and India should be discussed. From this it will appear that Palestine occupied the position of a great highway over which armies marched and traders passed for thousands of years. Many of these people for one reason or another stopped in Palestine and made their homes there and thus we find there to-day a remarkable mixture of races.

To illustrate further how a problem with answers given can be handled we will take one from South America (page 186). "Where do we find most of the people of the Amazon Basin"? There are three parts to the answer and the teacher at first thought may say; "This is merely memory work." But apply the word *why* to each of these answers and it becomes at once a problem requiring investigation for its solution. The fact that most of the people of the Amazon Basin live in three distinct

regions of the Amazon Basin is not an important fact from the point of view of real geography. The important thing to be found out is *why* are they thus distributed. There must be reasons for the grouping of people as we find them and in discovering this reason the pupils acquire a comprehensive notion of the life conditions existing there.

Throughout the Outlines there are many apparently simple questions which are answered analytically. In most instances these answers can be used as topics for investigation on the part of the pupils. The pupils should never be allowed to give answers to the problems in the form of *fact statements* without giving reasons for the fact or phenomenon. The presence of many fact statements in the Outlines must not be understood as a sanction for fact statements or memory answers on the part of the pupils. The Outlines cover the whole field of regional geography and by virtue of their make-up must be very brief. The form in which mere fact answers appear does not constitute real geography. They are but the raw materials out of which the pupils with the help of maps and supplemental books must develop geographical relations and conclusions. As for example take a problem from Africa (page 207). "How is it that the Nile made possible the wonderful development of ancient Egypt?" We might say in answer that it is *because* of the conditions enumerated in the answers that follow under the

five headings. The teacher should continually attempt to impress upon the pupils the idea that real geography consists in discovering the relationship between the question and the answer.

We must not forget the real significance of the problem method. It does not free us from the necessity of dealing with facts, such as fill the old geographies, because facts form the basis of knowledge. But the problem method does free us from memorizing facts since the aim of the New Geography is something wholly different. Let us take an example from the discussion of the Colombian Andes (Outlines of South America, page 173). A number of questions are asked and followed by statements of facts. The children should not be asked to memorize the four climatic belts of the Andean slopes, although through the use of these climatic belts in various problems it is likely that they will become temporarily fixed in their minds. They should not memorize the occupations and products of the different slopes for these as mere facts have little value for them. They should, however, use the data given as a foundation for working out the reasons why the life conditions are seen to change as we go from the sea level to the summits of the high peaks. The teacher should not attempt to explain why it grows cooler with increasing elevation although the children should actually know that it does from previous studies in home geography. The use of the facts in

working out how the people of the Andes live and why they grow different products at different elevations is more likely to fix these facts in the minds of the pupils than are the old-time memory exercises where no attention is paid to whether they understand what the facts mean. In addition the development of the causal idea gives a real understanding of the region.

It is hoped that the above discussion has shown the simplicity of the problem method and the great advantage which it offers over every other for the teaching of real geography.

The author maintains that school geography can be taught more rationally and more efficiently by abandoning entirely the memorizing of facts, and that the old idea that facts in themselves possess value is wrong. It is only as we understand the meaning of facts that we become educated. It is the object of the problem method to give this understanding.

If the teacher understands the basis of the problem method the *Outlines of the Continents* will not be difficult to handle. There is sufficient material in these little books if properly used to form a complete course in elementary school geography and to develop students having a practical and sympathetic understanding of the world in which they live.







