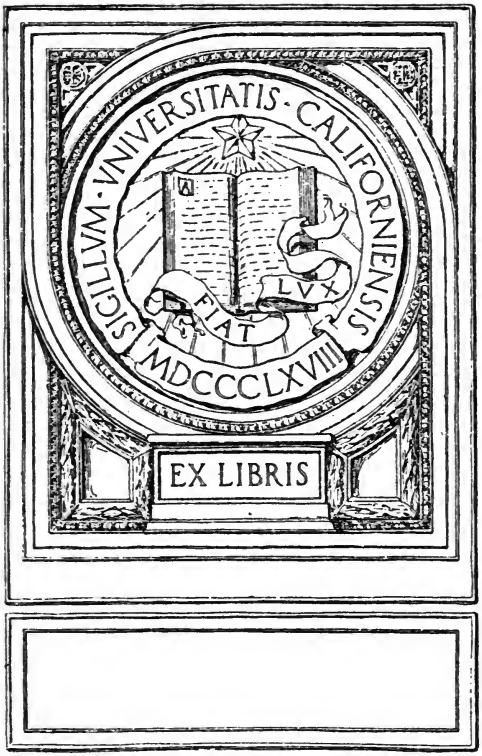
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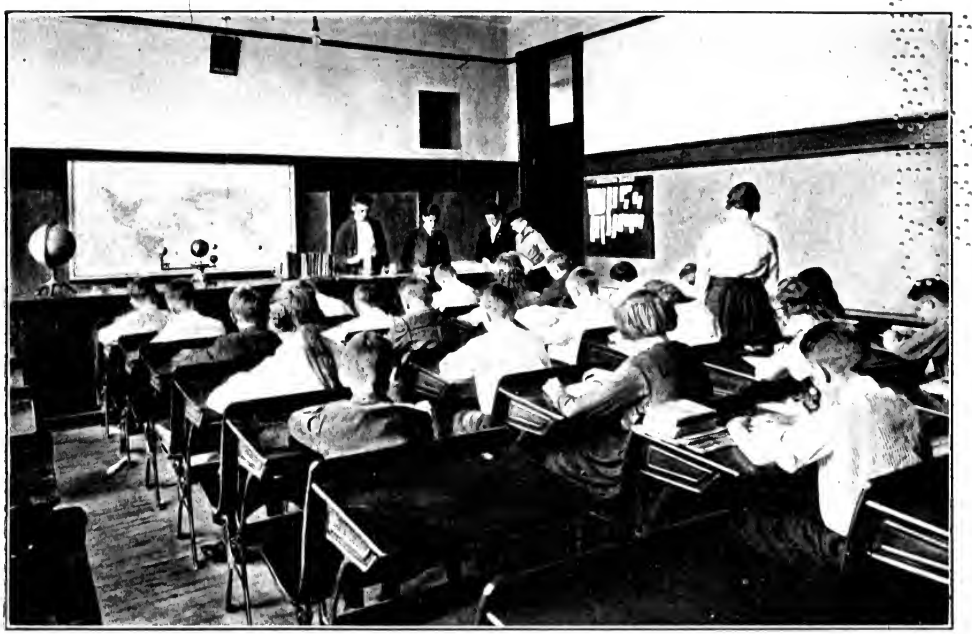

1. A Problem on Irrigation

ONE PUPIL IS INVESTIGATING CAPILLARY ATTRACTION; TWO OTHERS ARE WATCHING THE EFFECT OF WATER UPON THREE KINDS OF SOIL. THE TEACHER IS SUPERVISING THE STUDY OF OTHER GROUPS

TEACHING GEOGRAPHY BY PROBLEMS

BY

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TO

MY WIFE

THIS BOOK IS AFFECTIONATELY DEDICATED

FOREWORD

MODERN principles involved in teaching geography by problems and projects, and concrete examples of teaching the subject by means of these principles, are contained in this book. To teach geography by problems and projects requires materials other than the geography text. Among these materials, books of reference are necessary. Therefore, in the chapters that follow, lists of references will frequently be found, and these show abbreviations for those publishers referred to most often. In appendix E, the index to these abbreviations is printed.

This book ought to prove helpful to teachers by assisting to vitalize the subject of geography. Since geography provides specific knowledge of wide application to life's problems and furnishes useful methods of investigation, and fosters a lofty spirit of patriotism, the possibilities of the subject are great indeed. It therefore becomes a privilege to assist, by means of this book, in its rightful application and merited extension.

The ideas expressed are largely the result of observation and successful teaching in class rooms. Many teachers, therefore, will recognize their contributions to these pages. In this regard, I desire to mention especially the assistance of Misses Emma

J. Lamb, Lalla Mayo, Bessie Sampson, Inez Clary, and Harriet Snow of the Bainbridge Junior High School. My thanks are due also to Messrs. J. T. Walker and W. D. Ellis for constructive and valuable criticism.

E. Ehrlich Smith.

Richmond, Virginia,
June 1, 1921.

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INTRODUCTION

School geography, very gradually and with difficulty, is getting rid of some of the foreign matter with which it has been obscured during the past. While there are a number of reasons for this development, the one which appears to be of the greatest importance is the popular disclosure of that wonderful story of what man has accomplished in various portions of the world. This progress has been sufficiently interesting to gain and to hold the attention of many; but somehow teachers have missed this element of interest in the geographical story, and for many years have been teaching in classrooms a mass of facts devoid of interest and lacking in most of those elements which create a zest for knowledge.

Through the instruction that most of us received we thought of geography as concerned only with the names of countries, capitals, rivers, mountains, and seas. Definitions demanded the major emphasis and the geography of the grammar school consisted of exercises mainly composed of "bounding" countries which we could scarcely recognize on the map. In the high school the subject was not of sufficient importance to obtain a place in the program. Those of us who passed on into college caught glimpses of the theme when we heard talk of monsoons and

isotherms, alluvial deposits and processes of erosion, but we were relieved that nothing was said of capitals and cities and towns, while those of us who now know better are astonished that we heard absolutely nothing of man and his work.

This sort of geographical study, to say the least, did not function. When the war came on, educated people felt puzzled enough at the very names of places which appeared, indicating daily where the military operations were being carried on. The dust was blown from old atlases by intelligent men seeking information for the purpose of following these international questions which, for a period of five years, absorbed the attention of us all.

The importance of geography to our nation is increasing. Whether we would have it or not, we are no longer a provincial people. The very fact that we entered the World War has helped to banish isolation and provincialism. Rapid transportation by railroad, by steamship and by air, has also assisted in bringing to the minds of thoughtful people the futility of continuing to adhere to such a policy. We may not play the rôle of recluse any longer.

Every question presented to the Conference at Versailles had a geographical background. The political representatives of new states brought with them to the Conference facts of importance about languages, races, and peoples. They argued in detail, eloquently presenting claims based on the former extent of their territorial possessions. Ethnological experts and economists of large experience

reached conclusions founded on geographical facts, with products of the soil and the distribution of minerals holding a large place in the final settlements. Previously the great military leaders of the Allies, who were fighting for the liberty of the world on French soil, had planned their campaigns, not in terms of armaments alone, but also of strategic geographical points.

Our manufactures and commerce have grown vastly since 1890. We do a ten or twelve-billion-dollar foreign trade now, and are just beginning to take stock of things. It is our job to do the manufacturing for half the world's foreign commerce; and the training of men for foreign trade is a permanent obligation now confronting us. As a commercial nation, charged with world responsibility, we must feel the necessity for developing a knowledge of those principles which govern the production of raw materials and their distribution to the markets of the world. This field is commonly known as commercial geography, influencing to no mean degree the public school grade curriculum even now.

All of these things have made it very clear that the essential problems of civilization are matters concerned with human geography. Necessities of the future argue still more urgently for the establishment of geographical teaching in our schools, which shall be different from that of the past, in regard to method, extent, and content. The needs of the business world alone will call for instruction which will include the study of geography on a very

extensive scale. The study of controlling factors in the life of peoples which includes population, natural resources, and the commercial possibilities of nations, in a way which is vitally interesting, must necessarily gain headway. Languages, distribution of peoples, climates, manners and customs, forms of government, transportation and communication, will enter the courses of study of our higher institutions so as to contribute to the ultimate solution of the problems of society.

While geography is of direct and immediate technical vocational service for only a few vocations as we know them, nevertheless the classification of vocations grows apace, and with this increment there is an attendant extension of a necessity for this geographical instruction. But this is not for our discussion. Let us observe, while passing, however, that the "geographical division of the world from the view of overseas commerce has little in common with the old continental division of the globe with which we are familiar from our school geographies. On a moment's notice, such formal division will appear in all its absurdity from the commercial standpoint." [1]

Those who have already realized the condition in which this subject finds itself, have applied themselves to find the remedies. The doctrine of interest has been the first element practised. It has not had an easy road in the elementary schools, for it has

[1] *Vocational Education for Foreign Trade and Shipping*, Bulletin No. 24, Federal Board for Vocational Education, November, 1918.

met with criticism from parents and with inertia from some school principals and most boards. Relics of past instruction obtrude themselves with persistency between the efforts of progressive teachers trying to apply this remedy. The parent declares that his child ought to know where all kinds of places are, or what are the boundaries of this or that country, if, indeed, he cares enough to express himself concerning the education of his child. As a matter of fact, it is not nearly so necessary for one to know where Melbourne is, as it is essential that one know how to find out where it is; and when one has found this out, to know immediately a good deal about Melbourne because of this very knowledge of the location. Just where is so-and-so and what is so-and-so noted for, are not nearly so formidable as they were in the past.

TEACHING GEOGRAPHY BY PROBLEMS

PART ONE

CHAPTER I

PRESENT PRACTICE

1. **Question-and-answer method.**—Survey reports from cities and states all over the United States lead us to believe that geography is the most neglected as well as the most poorly taught of school subjects. Since this is true, teachers everywhere should apply themselves to the task of learning how to teach it by becoming interested in the most effective methods of presentation.

Various school surveys have been made in recent years.[1] These surveys tell us that there is generally an average poorness about the teaching of geography. The trouble is not difficult of diagnosis: the teacher assigns the pupils a certain number of pages or paragraphs in the text and questions them the next day. Judging from the statements made in these surveys, geography appears to foot the list of school subjects when pedagogy approaching an ideal is considered. Practically all the findings show that the teaching of geography is repressive rather than instructive, lifeless rather than vital. One of the critics stated, when he had occasion to speak of the misuse of text-

[1] *Educational Surveys*, Buchner. Bulletin, 1918, No. 45. Department of the Interior, Bureau of Education, Washington, D. C.

books, "The children read over the assignment chiefly with a view of finding the answers to the questions printed at the end of the section."[2] According to the evidence in all of the surveys, this seems to be a rather widespread practice in teaching. This critic continues: "The teacher, with the book in hand, put *seriatim* the above-mentioned questions, occasionally adding one or more on her own initiative. The answers of the children were brief and deficient in detail; this whether they remembered for the moment what the text contained, or whether they read the answers from the open book before them. . . . The teacher usually added very little; there was little or no class discussion; outside reading was seldom required."

Another critic declares: "The teachers use the blackboard very little for illustrative sketching, for rapid drawings and diagrams and for various modes of graphic representation. Where teachers fail to do this they fail to cultivate the habit in children." "In another city," he says, "maps and globes were seldom used, pictures sparingly, and specimens very rarely."[3]

It requires a considerable expenditure of money to procure such articles as sand tables, slate globes, supplementary books, pictures, maps, and specimens. That the appearance of such material in classrooms is entirely too rare we are informed by the

[2] *The Gary Schools*, p. 81. Abraham Flexner and Frank P. Bachman. General Education Board.

[3] *San Francisco Survey*, p. 221. Bulletin, 1918, No. 15. Department of the Interior, Bureau of Education. Washington, D. C.

numerous critics of educational practice. We are told that a certain superintendent did not believe in publishing even a course of study in geography, because he had provided the best text on the market. He had given it to the teachers to follow, and he expected them to follow it implicitly.

2. **Lines of least resistance.**—Textbook geography teaching is simply the result of following the lines of least resistance. Teachers who have relied upon the book in spelling, arithmetic, and reading to supply all the material for the recitation, fail to realize that the geography text needs to be handled differently if it is to be made vital. In part, at least, the textbook is but one of a number of reference books, and should be used as such to assist in gathering information about problems. Materials, like maps and projects, help to develop initiative, but supplementary books should now be regarded as so essential that it is difficult to discriminate between the text or basal book and the supplementary in geography.

Everyone knows that it is easier to follow the textbook, asking questions based upon lessons. This method is far simpler than planning for discussions rather than recitations; for study rather than memorizing; and for all the good things that enter into modern teaching. To be specific, it is an easier task for one to assign a lesson in the text about "Italy" than it is to choose a good problem involving the appropriate selection of the distinct

characteristics which make Italy important for the world's work; it is easier than arranging the minor problems; it is easier than providing adequate maps; it is easier than guiding pupils into skilful and effective habits of reasoning and study. It takes time to search for pictures that shed light upon the reading matter, and it requires energy and intelligence to plan map work. To teach differently an apparently despised subject demands application and grit.

3. **Typography and cartography.**—Photography, including the color process, typography, and cartography have attained a high degree of perfection. All of these arts, employed by the American text in geography, are extremely helpful in providing many kinds of interesting and instructive material for school pupils.

Combined with these visual aids to instruction, which make the texts very attractive, to say the least, either the type or topical method of presentation is employed in modern school books. Nevertheless, many supplementary readers of a general descriptive character, of industry and commerce, physical, scenic and nature readers, have ready sales when placed on the market. All of them are designed to enrich the textbook presentation. Some geographies have sought to incorporate as much of this supplementary material as the pages of the book were capable of containing, and in this way amplified the type method.

Besides these aids, teachers here and there are

using pictures, publications, experiments, stereopticons, desk outline maps, and other aids to the presentation of lessons.

Without immediate commentary upon the visual aids mentioned above, let us direct our present attention to the value of the type and topical methods of presentation.

4. Type and topical methods.—A type study, as at present used, is concerned with some industry, such as the growing of corn, in which the salient facts, illustrated with appropriate cuts, are developed by map study, topography, climate, vegetation, and similar subjects relating to the industry, thus setting forth one of the main activities of the world's work. This type presentation has occupied a large part of the pedagogical treatment of geography during the last decade. Indian corn or maize is treated as follows in one of the standard textbooks:[4]

Extent to which it is raised:

Corn is raised in most of the states of the Union, and you have already learned how important it is in the South. It is in the Central States, however, that we find the greatest amount. The corn belt of the country extends from Ohio to central Kansas and Nebraska, with smaller quantities raised to the north, south, east, and west of it. Farmers within this belt usually expect to devote from one third to one half of their land to corn; therefore, in traveling

[4] From "New Geographies, Second Book," p. 95, by Tarr and McMurry. Used by permission of The Macmillan Company, Publishers.

across these states in summer, one sees corn-fields in every direction.

How it is cultivated and harvested:

The seed is planted in rows in the springtime. Soon the little stalks appear above ground, growing rapidly during the hot summer months, until they reach a height of from seven to ten feet. In order to keep the soil loose, and kill the weeds, the ground between the rows is plowed when the corn is young; but as it grows higher, the shade of its leaves protects the soil from both drought and weeds.

A corn-field usually presents the most beautiful appearance in July, when the corn "tassels out." The plants then entirely hide the ground from view, and the rich green stalks, with their long, slender leaves, bend to the breezes in the most graceful manner.

If the stalk is to be used as fodder for cattle in winter, it is cut before frost, when the kernels on the cob are still somewhat soft and milky. If left until after frost, the grain hardens, and then the harvest season begins. Men drive into the fields in wagons and tear the husks from the ear, spending day after day at that kind of work.

Its uses:

Corn is put to many uses. Much that is raised is fed to cattle and hogs, as already stated. Some is made into hominy and breakfast foods, or into corn meal. Starch is another product. . . . .

While topical studies are type studies, the types selected are representative classes. The topical method, in seeking orientation from textbook treatment, involves consideration of practically any feature of geographical study; and when necessary,

several of the same class of things. Syllabi, or courses of study, are usually presented by topics for consideration, and, in general, "reviews" are topical in treatment, following logical arrangement. The topical method as an outline of the main features of study can be made interesting and intensive in nature, pointing to bibliographical data and suggesting aids to study. The following illustrates the topical method of treatment:[5]

The Rocky Mountains

Position; Surface. The Rocky Mountains, as we have seen, are the high mountain wall bordering the Great Central Plain on the west. The surface is rugged, the slopes are steep and long, and the passes are high. Yet, though the Rocky Mountains do not offer many opportunities for travel, they were, during the time of the exploration of the West, by no means so difficult a barrier as the arid plains to the east and the deserts of the West.

Climate; Industries. The climate is cold and moist, with the heaviest rainfall on the western slopes. The rocks contain silver and other metals in abundance, so that mining is the chief industry. Grazing is the only other occupation of importance, though lumbering is carried on in some regions.

Population; Scenery. Large cities have grown up about the mining centers. Elsewhere the population is found mostly in the occasional mountain valleys, especially in the high, level "parks" of Colorado and New Mexico. In the less populated regions wild animals, like bears and mountain sheep,

[5] From Dodge's "Comparative Geography of the Continents," by permission of Rand, McNally & Company, Publishers.

are numerous, so that portions of the area are favorite resorts for sportsmen.

The Yellowstone National Park, famous for its hot springs and geysers, lies in the Rocky Mountain region. It is very picturesque, and is much visited by tourists from all parts of the world.

To some the type method seems superior to the topical method, because, it is argued, there is generally a more careful discrimination in selection when the type method is used, in order that representative classes may be considered. Topics may be very numerous; and, indeed, when that method was in vogue, the type method came into use to reduce the number of topics.

The material contained in topical and type studies can be effectively employed in the teaching of geography. The organization of geographical material about a country or region is generally grouped around topics; *climate, vegetation, minerals, manufacturing, people, communication and transportation;* and information about some specific material of these topics is contained in type studies. Let it be assumed that a somewhat exhaustive treatment can be made by the organization of facts in logical sequence about these topics. It then remains to comment upon and to study each one of these topics to understand their salient characteristics. Information gained in reading, from supplementary material, projects, and the textbook should be organized in some convenient and impressive manner for use in the solution of problems.

5. Topical organization presented.—*Climate.* Knowledge of the climate of a region is necessary for the geographical comprehension of it, yet data about climate seem to be the least real to a pupil of all the geographic influences about which he studies. Technical terms involved in the study of climate, like long period changes, isobars, isotherms, currents, averages, and numerical data, tend to obscure the reality. Pupils do not readily attain a thorough grasp of the significance of climatic investigation. In all probability, and practice bears it out, it is better to present climatic conditions in relation to large areas and with reference to broad distinctions, suggestive of the effects of climate on the life of man or on phenomena connected with life, than to deal with an abstract study of climate. Concretely put, such questions as the following typify the point under consideration:

1. Which country is warmer, England, or Japan, or India? Why?
2. What parts of the United States are coolest in summer, coldest in winter? Rainiest? Why?
3. Compare the climate of the Mediterranean Sea with that of the Indian Ocean.
4. Describe the various kinds of climate that one would meet if he attempted to traverse a certain continent from north to south.

Since this question receives further emphasis elsewhere in this book,[6] let us for the time being be content with this meager presentation.

[6] See Appendix C.

Vegetation.—Development of the pupil's knowledge about the vegetation of any region depends, in large measure, upon his familiarity with the climate of that region; and attention should be directed to the results which the control of vegetation yields to humanity. The importance of this can not be over-emphasized. But this does not imply that pupils should be allowed to deal in vague generalities about this subject. When one is handling a problem he must adduce evidence to that problem in clear, concise, and explanatory language, sufficient to convince his hearers that he knows what he is talking about and that he knows enough about it. In consideration of the problems involved in the following statements, for example: Many cattle are raised in the Argentine, many sheep are raised in Australia, much wheat is grown in the United States; there should arise the following type-questions which should succeed in bringing out important knowledge about vegetation: What great natural vegetation region has been altered to suit these forms of human activity? What is being done with the products?

Minerals.—Often time is devoted to false considerations. To the scientist an examination of a geological survey will not fail to disclose the fact that certain portions of a country are rich in minerals; but to the teacher of geography the study of these same portions reveals the truth that unless a section is "worked" to produce minerals for the use of the world, it is of little value for geographical con-

sideration, even though the potential wealth be fabulous. While minerals may be classed as an asset to a country or region, unless this commodity plays an important rôle in the affairs of the life of the people, the mineral resources need not be studied *per se*. China and India possess valuable minerals; but, owing to the lack of ambition of the natives and to the present inaccessibility of these minerals, only a passing thought needs to be directed to the mineral wealth of such countries. On the other hand, Hungary, shorn of a large part of her former territory, must depend now upon Czecho-Slovakia for her coal. Czecho-Slovakia, then, on account of her mineral wealth, assumes importance in respect to this resource.

Manufacturing.—There is not time, so far as school geography is concerned, to investigate manufacturing except in a superficial manner, and in relation to a wide outlook, such as that which characterizes the study of climate, vegetation, and minerals. The importance of manufactures in general to the needs of the world and the development of machinery practically to perfection, are the salient features of manufacturing to be considered. It is to the condition of the worker that attention is now being directed, so that, through education, he may be brought to his maximum capacity to handle machinery. Skilled workmen are a tremendous asset to a country or to any section of it. For instance, around Boston many shoes are made, not, as earlier geography teaching would have us

believe, because of proximity to the raw material (as a matter of fact, hides are produced far away from Massachusetts towns), or because of Boston's superior shipping facilities, or yet because of water power for manufacturing purposes, but because certain Massachusetts towns are filled with skilled workmen, and the raw material goes to them. What then, is most essential to carry on this industry successfully?

People.—The character of the people who inhabit a particular region is of much importance for geographical study. Knowledge of the characteristics of people is often gained through a study of the conditions that surround them, the climate in which they live, the food they eat, their houses, the government under which they live, etc.

Take, for example, the question, Why has the Russian left his country to make his home in America? His government has been one of despotism, with a strict censorship; secret police service has been maintained; freedom of the press has been prohibited; public meetings have not been allowed. He has suffered from a vile prison system, and the Jews, Catholics, Armenians, and Baptists have undergone religious persecution. Furthermore, it is true that the average Russian is illiterate, for educational opportunity in Russia depended upon the parent's position in life. Peasant boys and girls rarely attended school; sometimes they were allowed to go when they could be spared from home. Even then, they were taught by poorly paid teachers,

just as poorly equipped for teaching. Buildings, homes, and equipment were miserable; and the huts in which the peasants lived had little or no ventilation. This condition was evidently the result of poverty and serfdom for over three hundred years.

The land in Russia has been poorly cultivated; fertilizer has seldom been used; little attention has been paid to rotation of crops; inferior tools and farm machinery have been employed; and a general dislike for country life existed particularly among the upper classes. Climatic conditions are not favorable to comfortable living. Cold winds blow from the north, and the evenings in winter are cold and long. In this inhospitable climate the industries have been poorly developed. The peasant farms have been small, often too small to support a family. Home industries favored by the long winter evenings, rather than a factory system have been prevalent. Such inferior manufacturing conditions caused low wages to be paid; in fact, the Russian only received about ten cents a day for his labor.

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In some such way as this, when a concrete statement is given of conditions which influence a certain group of people, children can be led to appreciate generalizations of characteristics of people. It is doubtful if the average textbook in geography sup-

plies such information. Either the teacher must supply it or the pupils must secure it through what is called, or rather miscalled, supplementary reading.

Broadly speaking, people, in respect to occupations, are divided, geographically, into two classes: those who are controlled by their environment and those who, by control of their environment, are engaged in occupations of world-wide importance. The Eskimos represent the former class; the cattlemen of the Argentine the latter.

Communication and transportation.—Communication and transportation are very important to our civilization; our railroads are even more closely linked to our lives than the telephone. While limited telephone service is inconvenient, restricted transportation service can cause actual suffering, since the handling of food and fuel is essential to our existence. Transportation by means of electricity and oil is greatly increasing. One is often heard to remark that it is difficult to imagine how people got along without typewriters, railways, telegraph systems, telephones, printing presses, and similar necessities. All these modern methods of communication have been made possible through inventions and discoveries, and these have materially changed the character and manner of living in the world at large, having in some sections brought about a complete revolution. By 1880, for example, the factory had gained precedence over farming in England, even though at that time her farmers were making excellent wages, for the simple reason that means and

methods of communication abroad so improved that she could obtain food supplies from the outside world cheaper than she could produce these at home.

In the North Central Plains of the United States farming is the leading industry. Comprising one fourth of the area of the United States, and one third of the people, this section raises half the food, half of the cows and horses, and three fourths of the corn produced in this country. These plains supply our country's food in much the same way as New England provides manufactures and handles commerce. Routes of transportation are more numerous here than in any other equally large region in any part of the world, except in the western lowland of Europe. Given an intelligent, progressive people, with a favorable environment, and with fully developed transportation facilities, the economic prosperity of any section is unquestionably assured.[7]

While during the last decade the human factor in geography has received considerable emphasis, physical geography previously had forced its neglect. The human factor, in the new texts, is now beginning to receive merited attention.[8] Besides the emphasis given in these texts to this element of interest, they are also excellent in such pedagogical principles as correlation with other subjects of the curriculum, topical and type studies and comparative reviews, all of which afford opportunities for skilful presentations of the subject.

[7] See "Three Industrial Nations," pp. 7–33, L. R. Blaich (A. B. C.).

[8] "Principles of Human Geography," Huntington and Cushing (Wiley).

6. Maps.—From various sources, maps depicting the facts and principles briefly sketched in the above sections are available. World maps connected with climate, showing the mean annual temperature, heat belts in relation to countries, winds and temperatures for the various months of the year, mean annual rainfall, atmospheric pressure, winds and ocean currents; those relating to the distribution of vegetation regions and mineral products; others with industrial regions, density of population, regions of largest commerce, regions of important commerce, telegraph and ocean cables, and much other information are usually presented in the best textbooks; and teachers often neglect them. The problem before teachers, besides acquiring enough up-to-date maps, consists in acquainting pupils not only with the proper use of them, but also with the method of skilful interpretation of them. Good, modern maps, properly understood and interpreted by teachers, can be made to serve as one of the most important and instructive elements of the subject. In this connection, it is well to emphasize the importance of the exercise of having pupils visualize product maps of the United States, and then reproduce them from memory in colors, on desk outline maps.

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berlain (Mac.); "Minerals," "Products of the Soil," "Manufactures," "Transportation" in "Great American Industries Series," 4 vols. (Flanagan); "Inventions," pp. 73–104, "National Control and Food Conservation," pp. 105–136, "A Seaport as a Center," pp. 201–208, "Transportation," pp. 217-232, "Immigration," pp. 249–251, "Housing," pp. 257–264, in *Lessons in Community and National Life*, Series C, U. S. Bureau of Education, Washington, D. C.; "World Atlas of Commercial Geology" (Minerals of the world), U. S. Geological Survey, Washington, D. C.; see also Appendix B for other illustrative material.

CHAPTER II

THE NEW GEOGRAPHY

1. Regional rather than political geography.—The first regional treatment, really, is home geography because this demands an intimate study, in some well-defined geographical unit, of man and his surroundings. Any study is regional in character which involves a careful study of a portion of the earth, uniform in regard to certain features like climate, topography, vegetation, resources, and occupations. According to the conception of geography which we have already sought to establish, the story of man's control of different regions in the interest of world needs must be a constant factor throughout the study of the subject. In a region of homogeneity, like purposes dominate people, and coöperation is likely to follow when people are bound together by the ties of common interests.

By means of the regional method of study, the opportunity is afforded to discard the cut-and-dried outline of position, coastline, surface, climate, etc., and that consequent mechanical presentation, in which no account is given of the significance of each factor in relation to the other factors making up the region's characteristics.

This regional method of study is both physiographic and economic, in proportion as it emphasizes the physiography of the section under consideration and the human aspects or the commercial and industrial activities of men. Political boundaries are not observed in the regional treatment.

This regional treatment of geography, using the problem method of approach, is best illustrated by a recent publication of the Massachusetts Board of Education, entitled "The Teachers' Manual of Geography for Grades VII and VIII." (See Appendix A., pp. 263-278). This manual is noted for the emphasis it places on regional geography. In respect to aim and purpose, the authors assign to geography a high rank in the curriculum as is evidenced by the following: "It [the subject of geography] applies so widely to the immediate problems of human life, it possesses so broad a cultural value, and is so important in developing powers of reasoning, of investigation and of initiative that the committee feels that it deserves a prominent place in the upper grades or in the Junior High School."

2. Emphasis upon and limitation of material.— The modern teacher, who wishes to make geography vital to the lives of pupils, is not primarily interested in topographical knowledge for its own sake. In other words, it is not her purpose to provide her pupils simply with the names of cities, countries, capes, and bays. Nor should it be her intention to follow the lines of least resistance, but rather should

she seek to make the subject absorbingly interesting and appealing. In order that this purpose may be accomplished, not only is the source of subject matter a question of importance, but the reason for teaching the subject must also be clearly defined.

Geography relies upon the current activities of men to give it life. On account of the multitude of such activities, with the interest of pupils naturally focused upon the world where men are busy with the accomplishment of purposes and where the adaptation of their knowledge to physical environment is being achieved, if interest is to be maintained, there must be both proper limitation and careful selection of the items taught, together with centralization around as few major subjects as possible.

The main part of geographical teaching consists in building up a steadily increasing, but gradually formed idea about the world's workers and the kind, the amount, and the quality of work they do. The type of presentation followed should assist pupils to acquire an outlook in due perspective upon the whole world as the home of man where some places are of more importance than others because the work which is being done in those places and the results which are being accomplished are more valuable to mankind.

From such a point of view, the comparative handful of people in Holland assume importance out of all proportion to their numbers in comparison with the millions either of Africa or of India. Stated in problem form as the main problem, the idea can be

illustrated by considering: What can we learn from the smaller countries of Europe? Holland, one of these countries, comes in for its share of consideration by the minor problem: What effect does the sea have upon Holland? The brief statements that follow point to the salient features which should receive attention in the solution of the problem.

The sea takes away land from the people of Holland; it destroys their property; it endangers their lives; it checks their rivers; it makes necessary enormous expense to stop its inroads. Hence, the people have to defend themselves by building dikes and sea walls, by making canals for drainage, by pumping the water out of the country, by planting grass in sand dunes, and by keeping watchmen on the dikes.

The sea affects the character of the people. Being constantly exposed to danger, they develop bravery. Since they are compelled to use everything to good purpose, they are economical and thrifty. Because they must work hard they are industrious. From long waiting and working they are patient. Since they have to struggle to defend their country from the elements, they are patriotic. Because they have to depend upon one another for common defence and the necessities of life, there is unity of spirit. There is self control because of discipline, and there is skill because of long experience in work.

Besides the things mentioned above, the sea affects the industries of Holland. It not only makes sailors and fishermen, but it also produces merchants.

It also causes the people to manufacture articles. At first they made things with their hands, but later on, when coal and machinery were brought into the country by their hardy sailors, they began to manufacture many things in factories. While they do some manufacturing, the nation at large consists mainly of farmers and cattle raisers.

REFERENCES

"The Land of Pluck," Dodge (Cent.); "Europe," Carpenter (A. B. C.); "Marta in Holland," McDonald (Little); *The Nineteenth Yearbook* for the National Society for the Study of Education, Part I, pp. 83–91 (Public School Publishing Co., Bloomington, Ill.) is an outline for a type study of the Netherlands; see also such selections in grade readers as "A Little Hero of Holland," "A Dog of Flanders," "Hans and Gretel," etc.

Could such lessons be learned from a study of the whole of Africa? This and more minor problems about the smaller countries of Europe form the questions which, when answered, would solve the main problem: What can we learn from the smaller countries of Europe?

3. **The world's needs.**—*Character of information.* It is well said that education must prepare all men for mutual aid, each to coöperate in the best possible way. In the broad sense of thinking about morality as thought and action that promote the improvement and satisfaction of human needs, geography lends itself to specific treatment for the appreciation of such a principle. Usefulness or service is one of the great characteristics of morality.

Honesty and courage—habits which are necessary for those who render service—definitely performed for the benefit of the world receive considerable emphasis in this absorbing story, while injustice and cruelty—wrong habits of action in nations as well as in individuals, vicious tendencies that interfere with the progress of peoples—are taught to be despised in this great drama of every-day life.

For purposes of instruction the old geography considered each country with equal emphasis. Thus, China was equally as important for study as England, France, or the United States. China does possess to a considerable extent all the natural advantages of the United States. The pupils can find that the country has long, navigable rivers such as the Yangtze and Hwang; that there is variety of climate; that the area is large; that it has many natural resources—minerals, agriculture, forests, and fisheries; and that the coastline is favorable for harbors and communication. Yet, when the question is asked: With all these advantages, why has China progressed so slowly? the principles contained in the new geography demand a modification of such an antiquated perspective. Seeking a proper solution of this problem, the pupils, observing the change in the form of government, now learn that there are signs of awakening in this great country. The Chinese have introduced the telephone and the telegraph; they have opened their ports to foreign trade, exporting and importing between Japan, Great Britain, and the United States; and they have

large cities like Shanghai, Hongkong, Hankow, with Pekin the seat of government and the gateway to Mongolia and Manchuria. On the other hand, the Chinese retain century-old ways of carrying passengers and hauling freight. While we owe to them the origin of printing, the art of pottery, and the discovery of gunpowder, as a people they are relatively unimportant as large factors in supplying the wants and needs of the world. Breaking habits is even more difficult for a nation than for an individual, and the men and women in power in China belong to the older generation, to whom custom is endeared by long familiarity.

Conservation.[1]—By means of geography one should learn that not only are man's needs ever increasing but also how much these needs have been enlarged, and how they are being satisfied. While it is necessary that attention be directed to the manner in which people once lived, especially when they were surrounded by resources which were practically untapped, the greater emphasis should be placed upon how people now, under new conditions, live and work. For instance, in the early days of our country, our government lavishly disposed of its unoccupied lands because they were believed to be practically inexhaustible. One of our presidents predicted that it would take six hundred years for our great West to develop to its capacity; but in

[1] A pamphlet, *Lessons in Community and National Life*, Series C, Chapter II, pp. 41-72, Bureau of Education, Washington, D. C., contains material on this subject. This pamphlet can be secured from the Superintendent of Public Documents.

less than twenty-five years after this calculation, the menace of exhaustion of our forests alone was so great that Congress authorized the withdrawal of timber lands from public sale; and, later, this authorization was extended to mineral lands and coal fields (especially in Alaska). So it happened that the government claimed for federal use, forest and mineral reservations of about 150,000 acres. Under the beneficent operation of the sale of irrigated lands by the government to settlers at moderate prices, land which was once worth only a few cents an acre and fit only for cattle grazing, has become worth several hundred dollars an acre for purposes of agriculture.

Enlarged production for the needs of the world and wise consumption of the world's supplies offer many new and increasing problems. Modern science has done much in showing men how to conserve good soil and how to restore poor land. Modern science has also helped to banish ignorance of the value of things which were once wasted. For instance, cotton seed, once allowed to rot, is now made to yield valuable oil and cattle food. A black, pithy substance, known as coal tar, was once regarded as worthless, but ways have been discovered whereby dyes and other valuable products such as aspirin, wintergreen, and saccharin are obtained from it, thus making it worth as much as or more than lump coal. Corn products have been multiplied at an astonishing rate.

The sharp eye of science is constantly on the look-

out for the utilization of waste material for the world's needs. Left to themselves, the natives of the Malay Peninsula would hardly realize the value of the rubber that grows there. Yet, only recently, scientists have extracted an oil from the Para rubber seed which, it is declared, can be used in the manufacture of paints, varnishes, linoleum, and soft soaps. The residue of the seed, after the oil is extracted, it is asserted, can be converted into a feeding cake for cattle and other stock. The value of such an industry can well be appreciated when one is informed that in the British Malay possessions alone, rubber estates own two million acres of land, of which area more than one million are planted in Para trees; and that the quantity of seeds thrown off each year by the rubber trees averages about three pounds to the acre.

While the world has undergone a most horrible experience at the hands of Imperial Germany, those who would listen to the story of this empire can gain some valuable lessons. Not only is economy the dominant idea in agriculture, in terracing and using the mountain sides for orchards and cattle, in eliminating wood patches and using every available space for products, in studying conditions of soil and climate and planting suitable crops, and of improving land wherever possible, but even in forestry, the Germans have, for a long time, led the thought and practice of the world with conservation as the prevailing idea. Not only do they plant trees for future use, but they also protect what they have from

destruction by fire. The Hohenzollern Government, in the Imperial reservations, preserved the young trees, and taught lessons of careful forestry, such as clearing undergrowth and wooded lands, and created legislation for the protection of game and birds.

Dr. Edward E. Slosson says: "We now call the Germans wasteful of human life, and we are right. They used to call us so. When the Prussian Minister of Commerce visited the United States some years ago, he reported that we were 'very careless about the life and health of the working classes; in the largest works the precautions against accident are of the most primitive kind.' We must remember that the reason the German Government could sacrifice men and money so lavishly in war was because this same government had for fifty years devoted itself assiduously to the up-building of a rich and populous nation. A country much smaller than Texas and with few natural advantages has been brought into the foremost rank of world powers in commerce and industry, in science and arts."[2]

All of these illustrations show that, in order to supply the needs of the world, men must use the resources about them in the most economical way; that they must increase production by means of conservation; and that, by wise consumption, they must make the wealth of the world "go around" to all.

The teacher of geography should be vitally con-

[2] "Monographs of Efficiency," p. 27, *Trade Expansion and National Independence*, January, 1917. National Institute of Efficiency, New York City.

cerned with the effort to teach pupils the world's need for conservation as a necessary activity in the safe conquest of the environment.

Interdependence.—While no brief is being held here for the so-called internationalism as opposed to nationalism, teachers should seek to impart, by first obtaining it themselves, a broad geographical outlook gained by an intimate contact and acquaintance with geographical literature. The world is an interdependent group of peoples. No subject in the school curriculum teaches this fact better than does geography. It is a dull brain indeed that cannot appreciate the fact that the densely populated districts of our own country—for instance the factory district of New England, where the people's energies are devoted to manufacturing and not to agriculture —must receive food from some other section of the country, and that the most accessible, both by nature and by engineering, is that area known as the prairies. From this fertile region, wheat, barley, oats, rye, sheep, and cattle supply the needs of the crowded New England states. Although thousands of miles separate the men who live on the prairies of America from those who live and toil in the fields of Australia, nevertheless the law of supply and demand for their products establishes a mutual relationship between these countries. Geography must teach that the prosperity and livelihood of one kind of worker are bound up with the prosperity and livelihood of another. A study of this relationship leads the pupil into a field of inquiry about interna-

tional relationships. One thus learns not only that tea comes from Japan and China, rubber from tropical countries, a great deal of wheat from southern Russia, and nitrate from Chile, but also how, when one country can supply the needs of the world for a particular commodity, this has resulted in the development of trade between nations, and this trade makes nations very dependent on one another. At the same time, exchange between countries makes it possible for everyone to share in the good things that the world produces.

Emphasis upon this thought is most important. Let us further consider the rubber tree. Synthetic caoutchouc has been made in the laboratories of both England and Germany. It is not at all certain that this product can be made cheap enough to compete with the cultivated product, but the fact remains that there is an enormous demand, constantly growing, for this output of the trees of the African and South American forests. The Belgians, history tells us, lashed the natives of the Kongo for increased supply, but they drew only blood. The English and the Germans, foreseeing a scarcity in this commodity, planted trees in their own tropical possessions. With the acquisition of Togo, Kamerun, and Kaiser Wilhelm's Land, Great Britain now comes into possession of Germany's supply.

While the United States leads the world in the manufacture of automobiles and uses more than half the world's supply of rubber, the home production of this article is insignificant. Yet it is said that

Porto Rico, Hawaii, and the Philippines have most excellent lands for the cultivation of the tree. Besides these colonies of the United States, Central America and Mexico as well as the West Indies offer inviting fields to the American planter. In order to supply the needs of the world for rubber, it is necessary that production keep pace with consumption; and it is merely a matter of time before the United States, in company with these other nations, must necessarily enter the field of rubber production, certainly in its own colonies.

Enrichment of consciousness.—The American boy, in particular, is interested in the life of to-day. It is his choice that, in his school societies, he no longer deals with dusty academic questions but prefers current affairs. Boys and girls alike read newspapers; they discuss present-day events. The boy is interested in what kind of work people do because he is a part of the world and he knows that what is going on affects him, his people, and even his own boy-world; and the more information he can get about things the more he is satisfied. Girls are no longer disinterested spectators in the world's progress because, in modern life, they, too, look forward to a place in affairs. Therefore, a problem for teachers is to present interestingly and effectively the drama of the reconstructed life of peoples; and make efforts to inculcate a keen understanding of how the Caucasian race is controlling its environment, how it has not permitted itself to be limited by its surroundings, how it has expanded to the uttermost

parts of the earth with conquest yet ahead, and many victories over environment in the past. Comprehension of this Caucasian expansion alone is enriching, for it cultivates sympathy with others whose needs, resources, efforts, and feelings are like our own. The old idea of competition has given way to the new idea of coöperation in government, in business, and in industry.

For instance, Canada's problems are similar to our own. With Canada, New Zealand, Australia, and even South Africa we have common problems (one of which is immigration) and interests. England keeps watch over the Caribbean Sea at Jamaica and we have taken our post at Panama, and Porto Rico. In the Pacific Ocean, the United States guards Hawaii and the Philippines while Great Britain's empire in the Far East embraces Singapore, Hongkong, and India. What goes on in France and in other European countries affects the industrial life of our own. And so it has come about that the new working principle is that it is better to be helping your neighbor than to be seeking to defeat him; for, in the long run, both you and your neighbor will be better off. Competition is the method of war; cooperation is the method of peace and understanding.

Geography thus offers the opportunity, through the study of peoples and industries, for the cultivation of understanding and appreciation of interdependence among individuals and social groups of the same type. Industrial relationship necessarily presupposes commercial reciprocity, and hence, con-

sideration must be devoted to the commercial struggles of people who are at work to provide food, shelter, and clothing for the millions of workers in factories, machine shops, mills, and other lines of endeavor.

Sociological results.—When one has derived some conception of our American industrial and commercial organization, it is well to realize that this information is still incomplete. This must be expanded so as to induce a vision of this organization in its relation to the rest of the national structure—religious, political, and social. To such matters geography can only refer. Textbooks on pedagogy state that such facts can be correlated.

Shifting values.—While shifting values are characteristic of the world's progress these changes are recorded in no uncertain terms. They find application in the very life of the people, in the daily search after the things worth while. Take, for instance, the increasing value of the tropics to those who dwell in the temperate zones. Tropical South America now is probably of more value to North America than North America is to South America; for we know now that as the population of the earth increases, and as civilization advances, the inhabitants of the temperate climates become necessarily dependent upon the tropics for food, shelter, and clothing. It has been said that while the construction of the Panama Canal was a most remarkable engineering feat, it will sink into insignificance in comparison with some projects of the future, as, for

instance, reclaiming the Amazon Valley. In that region where the sun shines straightest from the heavens to the earth, the food of the future must be procured. From the tropics we already get many valuable commodities, and all the people of the civilized world must receive these products in ever-increasing quantity.

Political changes as a result of the World War have been numerous. The teacher of geography as well as the teacher of history is concerned with many of these. Elsewhere in this book reference is made to Miss Edith P. Parker's study of the partition of Africa (page 77). This study was printed in 1919. Under date of May 14, 1921, *The Literary Digest* (page 12) contains an article, "The New Partition of Africa," in which it is pointed out that, in this new partition, Germany, the last of the European Powers to acquire African territory under the former partition, is the first to be forced out of the continent, with England as her chief inheritor; and, on page 13, a map of the New European possessions in Africa is printed. This change in the political map of Africa and changes in the map of Europe as a result of the World War have, from time to time, appeared in numerous magazines. Alert teachers have grasped the opportunity of keeping those articles which applied to their school work and they have cut out and mounted those maps which were likely to prove serviceable.

One finds that it is not a difficult matter to glean, even from a number of contemporary news-

papers, new facts of the world's progress along different lines—facts which for the first time assume a significance not to be disregarded in case the source is authoritative. No less a person than Charles Kingsley has informed us that: "All but God is changing day by day."

CHAPTER III

THE NEW TYPE OF PRESENTATION

1. **How a problem is selected.**—Thoughtful and extensive reading forms the basis for teaching by problems and projects. Out of this experience teachers become prepared to construct problems. The greatest difficulty in the way of securing problems lies in the fact that too much dependence is put upon the text and not enough upon inspiration and information gained from other authoritative sources. From a well-selected bibliography, a teacher can construct a vast number of interesting problems. Without adequate range in reading and knowledge it is exceedingly doubtful whether teachers can vitalize geography.

In selecting a problem, one must take into consideration not only what information is to be secured, but also how the information can be related to present-day interests; and the closer these are to the interests of the children, the better. For instance, the bare facts about the tropics might be assigned and the pupils required to memorize them, or the text lesson might be given. But it is so much better to gather information which treats of various phases of tropical geography, then concentrate upon one which is im-

portant and follow this by other phases of less importance. For instance it is an important fact that modern interest in the tropics is definitely related to the food supply which is available for world consumption. All nations are interested in this phase of tropical life. The cocoanut, a tropical fruit which yields an oil which provides a butter substitute, is of importance to the every-day interests of pupils, because butter, or a substitute, is a common necessity. Read what Slosson says:

> One tropical product . . . . . is the meat of the cocoanut, known in commerce as copra. This was once thought fit only for soap fat, but the chemist, with the aid of a catalytic agent, succeeded in transforming the evil-smelling oil into a solid white and wholesome fat, and this has now become one of the chief ingredients in margerine and other substitutes for butter and lard in cooking and table use. This simple chemical reaction, which any schoolboy—of the Macauley caliber—could write upon the blackboard, has been worth hundreds of millions to Europe. Germany has been paying out forty millions a year for copra and this commodity was sold for a great deal more. The margerine industry has developed to immense proportions in Great Britain, but still does not suffice for the needs of the people of these islands, and they had to import before the war 150,000,000 pounds of margerine a year, chiefly from Germany and Denmark. This amounts to more than a third of the butter imports. . . . The margerine business in America has grown until it is now more than eight million dollars a year.

The cocoanut grows close to the seashore and here

is where the tropical archipelagoes have the advantage. . . .[1]

Turning to another important topic, our country has a decided interest in the Philippine Islands, a tropical country. What subject, then, offers a better opportunity for concrete study than this tropical possession of the United States? Suppose the search for information has led the teacher to select the following reading matter:

REFERENCES

"The Philippine Islands," Foreman (Scrib.); "How We Are Sheltered," pp. 67–76, Chamberlain (Mac.); "Australia, Our Colonies, and Other Islands of the Sea," Carpenter (A. B. C.); "Big People and Little People of Other Lands," pp. 110–117, Shaw (A. B. C.); "Little Folks of Many Lands," pp. 83–95, Chance (Ginn); "Little Journeys to Hawaii and the Philippines," M. M. George (Flanagan); *National Geographic Magazine,* November, 1913; Government pamphlets on Education in the Philippines, U. S. Bureau of Education, Washington, D. C.; various standard encyclopædias, a good history of the United States; see also Appendix B for other illustrative material.

Suppose, from these data, the teacher is impressed with the present usefulness as well as with the future possibilities of the Philippine Islands. Then why not construct the problem: Why have the Philippine Islands a promising future? If so, how can the material—text and references—be arranged for advantageous treatment of this problem?

The introduction might be given somewhat as

[1] "Monographs of Efficiency," pp. 17–18, *Trade Expansion and National Independence,* January, 1917. National Institute of Efficiency, New York City.

follows: The Philippine Islands came into our possession in 1898. For a long time the inhabitants thought that time spent in school was lost, since independence, to which they constantly looked forward, would bring an entire change in affairs. They now think that there is prospect of independence through education. Does this mark progress?

2. Organization of topics.—Living conditions in the islands have been greatly improved by the United States. Health measures and sanitary precautions have been introduced and enforced; a better government has been established; and educational advantages are being provided. Hundreds of American teachers are being sent to their schools and they have introduced industrial and trade education. A bureau of education circulates information about homestead laws, postal banks, and good roads among the natives. Societies for the improvement of villages have been formed. English, as a spoken language, is becoming more prevalent.

Since food products—fruits, rice, vegetables, coffee, sugar, etc.—are easily raised, the Philippine Islands can support a large population. If farming conditions are improved and are made modern, greater production is possible.

The natural resources offer a variety of occupations. Agriculture is easily carried on because of the rich soil, abundant rainfall, and the tropical climate. Quantities of tobacco, coffee, fruits, cocoanuts, indigo, hemp, and rice are raised. Min-

eral resources—gold, sulphur, petroleum, coal, and iron—offer increasing industrial opportunities. The dense forests contain dyewood, rubber, bamboo, palm, and ebony. Therefore there is considerable possibility for industrial development and employment.

The commercial possibilities are good, for a profitable trade can be carried on between the United States and other countries. They have good harbors at Manila and Iloilo. They import cotton, machinery, and hardware. With encouragement of industries, more and more can be imported. In exchange for these imports, they export tobacco, sugar, fruits, coffee, cocoa, indigo, hemp, lumber, and copra. They have facilities for communication with the rest of the world, for they are connected by cables with Asia and the United States.

The Philippine Islands are also valuable to the United States for they occupy a strategic position in the Pacific.

The right kind of education and a fair and intimate contact with American trade will eventually develop the people.

The brief statements above of the method to be pursued indicate how the topics may be organized. If the pupils are guided in their activities, if discussions ensue, if readings and reports are made, then the problem possesses advantages superior to the topical recitation of facts.

A review could be obtained by the problem: Do you think the United States could afford to sell the Philippines?

In like manner, the problem: What has England done for India? might be considered. This would bring out reports of selected readings about India, group discussions, and a topical organization like the following:

England has improved the civilization of India by establishing modern schools and colleges and by introducing postal and telegraph systems.

England has enriched India's agricultural production by irrigating the land.

India's commerce has been increased by England, for she has built and maintained railroads between all the chief cities and encouraged the exportation and importation of materials.

England has improved health conditions by draining the marshes, fighting contagious diseases, and has made fever less prevalent.

England has been successful, among other reasons, because she has allowed the people to worship as they wish and to follow out their natural social and governmental inclinations.

Great Britain having benefited India, what does India do for Great Britain?

India provides Great Britain with many food products and furnishes her with many raw materials; India is a market for Great Britain's manufactured products; India increases the revenue of Great Britain by more than $500,000,000 a year.[2]

India helps Great Britain in time of war, as was

[2] When necessary, teachers should have assertions verified by supplying up-to-date statistical information (See pp. 42–47).

evidenced by her part in the World War. In case of war with any country in Asia, England can use India as a base for supplies and for landing troops.

Further comparisons between other countries and their colonies might follow these two. Why are the Hawaiian Islands a valuable possession of the United States? is a question which, in the organization demanded and in the process of solution, requires the same kind of treatment as that which was accorded the two preceding problems.[3]

The brief statements that follow point to the salient features which should receive attention in the solution of this problem.

Hawaiian products find a ready market in the United States. The rich soil, tropical climate, and abundant rainfall produce luxuriant vegetation. Tropical fruits—bananas, oranges, grape-fruit, pine-apple, cocoanuts, etc.—abound. Coffee, rice, and sugar-cane are the principal products.

San Francisco is a shipping center in the United States for the Hawaiian trade. Sugar is our principal import from Hawaii, while breadstuffs, machinery, cotton manufactures, lumber, and provisions form our chief exports to Hawaii. In the "Golden Days of '49" the Hawaiian Islands furnished prac-

[3]The Department of Commerce, in its list of publications of May 1, 1918, states (p. 20) that the Coast and Geodetic Survey publishes 658 charts on different scales, for general or local use, covering the coasts of the United States and Alaska, Porto Rico, the Canal Zone, Hawaii, and the Philippine Islands. This department issues a monthly list of publications which may be obtained upon request.

The Department of the Interior, Bureau of Education, publishes monthly a *Record of Current Educational Publications*. This is classified. (See Appendix B.)

tically all the food for the early California miners. Hence, they aided in the building of the West.

The location of the Hawaiian Islands is important to the United States. Situated about midway between the Pacific Coast and the Philippines, these islands afford a repair station for ships and a coaling station for the merchant marine.

REFERENCES

"Hawaiian Islands," "Burton Holmes's Lectures," Vol. V (The McClure Co.); "The World's Commercial Products," Freeman and Chandler (Ginn); "Little Journeys to Hawaii and the Philippines," M. M. George (Flanagan); various standard encyclopædias; see also Appendix B for other illustrative material.

These illustrations serve to show that there are four steps involved in the problem type of instruction: (1) In preparation for the problem, data must be secured out of which problems should arise. (2) The problem is raised. (3) The problem is tested. Materials are to be secured, interpreted, and applied. (4) The problem is solved. Detailed written analysis is, in general, not necessary for the pupils; yet some teachers by mistake require a more or less painful amount of written work. (See pp. 102–104.)

3. Quantitative and qualitative treatment.—*Statistical tables and study.*—Such treatments of the Philippines, India, and Hawaii are agencies by means of which pupils get facts and figures for themselves about the world's production of certain articles;

and, in the getting, the way is opened for the teacher to demonstrate statistical study and arrangement. As a consequence, there can be developed in pupils an orderly and accurate way of recording what countries and portions of countries contribute to that grand total which comprises the world's table. The sugar industry offers an example. In the Catalogue of the Bureau of Publications, Department of Commerce, Bureau of Foreign and Domestic Commerce, there is listed a review of information available to manufacturers and exporters. On Page 24 of the 1918 report there is the following reference:

"The Sugar Industry," by F. J. Sheridan. Miscellaneous series No. 9; 1913; 127 pages. A study of sugar-cane and cane sugar in Louisiana, beet-sugar data, and general statistics of the sugar industry. In three sections, devoted, respectively, to sugar-cane—agricultural costs; cane sugar—production and factory costs; beet sugar and world's production. Superseded by "Cane Sugar Industry," miscellaneous series No. 53. See cost of production reports.

"The Statistical Abstract of the United States," which can be purchased annually, presents in condensed form statements regarding the commerce, production, industries, population, finance, currency, indebtedness, and wealth of the country, and includes a condensed statement of the commerce of the principal foreign countries. "The Statistical Atlas of the United States" contains numerous charts illustrating practically the same information.

Information can also be obtained about the trade of the United States with the world from the miscellaneous series of the Department of Commerce. Miscellaneous series pamphlet No. 38, 1916, contains statistics showing the trade of the United States by countries and articles, rendering it possible to turn to Italy, for instance, and make an accurate survey of our trade with that country.

In one of the standard textbooks[4] in use in schools, we find a quantitative treatment of a review of the United States and comparisons with other countries, statistics in the figures being for 1910, with graphic illustrations attractively arranged, and also distribution maps. The idea involved is excellent. Up-to-date material constructed in the same form suggested in this section is of sufficient value to be incorporated in geographical teaching as a means of making it effective.

When we are able to introduce pupils to statistical study and treat this in such a manner that they take interest in it and learn both how to interpret statistics and how to record them, they have then successfully acquired an advantageous amount of geographical skill.

Qualitative treatment difficult.—The qualitative treatment of geographical facts is important, yet in comparison with the quantitative treatment, a little more difficult to present, because, at present, textbooks devote very little attention to this phase of the

[4] "New Geographies," Second Book. Part VI. Tarr and McMurry. (Mac.)

subject. It is true that in the quantitative treatment the qualitative side of things should find its proper place. Ira C. Davis, in discussing "Agriculture in China," in the December, 1918, issue of the *Journal of Geography*, says that in China almost every foot of land is made to contribute material for food, fuel, or fabric. Everything that can be made edible serves as food for man or domestic animals; whatever can not be eaten or worn is used for fuel. He states, too, that the Chinese are vegetarians to a far higher degree than are most western peoples, saying statistics prove that " . . . of one hundred pounds of dry substance food fed to cattle, only four pounds appear in the form of human food, but five pounds from sheep and eleven from swine." He further claims that according to records, China gets forty-two bushels of water rice per acre, twenty-two bushels of dry land rice per acre, and makes an average yield of wheat of twenty-five bushels per acre.

In the northeastern section of the United States, the New England States politically, the North Atlantic Lowland of the United States regionally, good farm land is not abundant and therefore agriculture has not occupied first place in the activities of the people. Nevertheless, the little farming possible is well done. Since most of the level land is situated near the coast and adjacent to the bays where the largest number of industrial and commercial cities of the United States are located, the farmers raise vegetables and fruit, and produce

dairy products in abundance for the city markets. As a result, about one per cent. of the country's area produces three per cent. of the crops and *more per acre than any other section of the United States.* This same section carries on two thirds of the country's commerce, and one third of all of its manufacturing.

This qualitative treatment, in the study of world industries, teaches facts and principles about competition between peoples and relative successes attained by them. In times of acute distress, when the cost of living is high, qualitative production is studied with much interest by all. Geography, when quality of production is emphasized, teaches certain generalizations which are valuable as well as instructive. Though the world can be conceived of as an immense workshop, industries are not confined to those nations which can by nature produce the goods best and most easily. Production in France is not restricted to objects of art and fine wine; China is engaged in other activities than those pertaining to raw silk and tea; Australian effort is not devoted only to wool, nor the energy of Switzerland only to silk, nor that of Spain only to olives and fruit, nor that of Scandinavia only to dairy products, nor that of Canada only to lumber, nor that of England only to textiles, nor that of the United States only to steel or cotton. Industries are world wide; people in one section of the world compete with those in another section, even though one may not be so well favored by nature. In this com-

petition, success is measured by the amount *per unit* of production. In the case of crops and farming, intensive cultivation is the qualitative consideration, while extensive cultivation is the quantitative side of it. In qualitative production, brains are applied to the tasks at hand; and men bring to bear upon the problems before them those auxiliaries which help them to secure and maintain, in spite of the adverse circumstances of nature, a high position for keen competition and a superior place in the world's work.

4. Development of problem types.—*Preparation for selection of problems.*—The responsibility of arranging the drama of the reconstructed life of peoples in effective instructional order rests upon teachers. To meet this responsibility, there are two principles which should guide them: first, keeping abreast of the times, and, second, forming the habit of reading from sources of authority.

Conditions in the world are constantly changing, presenting shifting values which are important to geographical study. Teachers must be in a position and also in a frame of mind to weigh the importance of the new, to make use of available information, and to discriminate between transitory and stable facts.

> Who reads
> Incessantly and to his readings brings not
> A spirit of judgment equal or superior,
> Uncertain and unsettled still remains.

It is a wise teacher who forms the habit of turning the pages of geographical magazines, like the *Journal of Geography*, the *National Geographic Magazine* and the *Geographical Review*, or who reads at intervals, with "judgment equal or superior," some newspaper or newspapers of recognized merit and authority. While broadening her intellectual horizon this teacher also obtains, as a by-product, gems of thought for use in the classroom, and technical information; and thus gains not only a sense of security, but also a feeling of comfort for the daily tasks that confront her.

In particular, one who reads widely, and selects carefully, is in a position to arrange that bibliography so necessary for both herself and her pupils in the solution of problems and in the literary presentation of the subject. Furthermore, when one secures a genuine, technical knowledge of the science of geography, "place geography" facts assume a proper emphasis in respect to the importance they bear to one another and to geography as a subject.

The problem raised.—Type and topical methods can be used in problems. By the use of the problem method, one can make a distinct advance in effective presentation, for in it one makes use of topics, since the relevant material must be properly classified in advantageous sequence. For recording facts and principles there are a number of methods that can be used, but the topical or outline method is worthy of mention, inasmuch as it affords opportunity for classification of material under a convenient and

logical arrangement. Through the use of type studies, also, one is able to secure information about a certain class or obtain from the type study data for the purpose at hand. Once obtained, this must be subjected to the following examination: Are the data of enough combined weight to prove the point in question? Are these adequate to solve the problem?

The problem type of presentation not only insures a psychological and suggestive plan whereby pupils may develop topics to a conclusion, but it likewise performs even a more important mission in limiting the number of items taught, in making a careful selection of them (minor problems), and in grouping these items around a few major topics (main problems).

Do we ever really think without a problem? In "A Curriculum on Mexico,"[5] by Dr. Frank M. McMurry, there is a somewhat detailed treatment of that country. His main problem is: "Is our intervention advisable?" The conclusion is reached by means of the solution of seven minor problems,[6] as follows:

1. Ease and safety with which the various parts of Mexico might be reached by us.
2. Character of the inhabitants.

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[5] *Teachers College Record*, September, 1915, Columbia University, New York City.

[6] It is a general practice to organize material about a country or region around the following topics: climate, vegetation, minerals, manufactures, people, communication, and transportation. See pp. 9–15.

3. Unity among the people.
4. Thrift among the people.
5. Possibilities of industrial progress and probable benefits to us.
6. Opposing conclusions as to the advisability of intervention by us.
7. Our government's solution of the problem up to the present.

If we are interested in solving this problem, we find that upon gathering material relating to each of the above minor problems, we shall also secure the evidence needed for an answer to the main problem.

Explanations, arising in response to problems that are set up for solution, may be adequate or inadequate. It must be definitely decided whether the data offered in respect to each of the minor problems are sufficient for the purpose. If not, we must look elsewhere for more convincing information. Each fact obtained should constitute a link in the chain of evidence.

In setting up problems for pupils to solve, while the general outline may be derived from geographical principles, yet, the filling in of the outline or the treatment of the minor problems, either orally or in writing, might reveal in the pupil a lack of intimate knowledge of the subject. Sufficient evidence must be adduced to supplement the facts of the outline. Consequently, success lies in the nature and the amount of the evidence that is to be expected from school pupils in support of statements.

We might well ask ourselves some questions like the following: Can we think of any way in which independence on our part in working out a problem—that is, independence of authority and text—might be of benefit to the pupil if we acquaint him with it? Which is preferable, poverty and independence, or riches borrowed from others? Which did our teachers encourage in us? Which is more important to possess, mental attitude or information? Or are they equal in importance? Are results in teaching assisted by method?

Admitting the necessity of setting up problems, what are some of the vital factors we should consider in searching for suitable ones? A poet says:

> Attempt the end, and never stand in doubt;
> Nothing's so hard, but search will find it out.

5. Testing the problem.—In making preparation for the selection of a problem, the country, or whatever section or thing is contemplated, must be studied with the idea of choosing from the mass of available material those descriptions and data which contain *distinct characteristics* of the country or section under survey, the main factor or factors of geographic control. After these have been selected, then the question must be framed for consideration and tested for validity. After choosing the problem the following principles should be applied as a measure of its efficacy:

The value of the problem.—Is the problem worth solving? Will its solution be of enough value to

pay for the work involved? Will the conclusions of the investigations be of worth? Will it involve projects? If so, are they capable of adding to interest in the solution?

The feasibility of solution.—Can the problem be solved? Can suitable methods be devised? Can enough related data be obtained for its solution? Are the pupils able to judge whether the problem can or can not be solved?

Judgment of the worth of statements.—When one has chosen his problem and made clear its meaning, one must then know how to select data that will aid in its solution, and reject those that will not. In other words, it is a case of "sticking to the point."

Statistics or quantitative treatment.—Is there evidence of ability to know when statistics are needed in proof of a statement or in the solution of the problem?[7]

Recording facts and principles.—There are a number of methods for recording facts and principles. Some are better than others; but one principle is clearly established, namely, that the significant outstanding feature or features of any generalization should find expression in clear, good English, and statistical or other information should follow this declaration.

Classification.—Can the facts be readily classified?

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[7] Teachers are not generally aware of the valuable free information which can be obtained from the different departments of the Goverment (See Appendix B), and from various agencies like the Pan American Union, Washington, D. C.

Arrangement.—When one has placed the relevant facts in proper classification, that is, each in its proper class, and in accordance with the purpose at hand, can they be arranged in some advantageous sequence? The arrangement may be dominated by any one of a number of ideas, according to the purpose in view, such as number, size, or degree of importance, or of difficulty, etc.

Sufficiency.—Having the relevant data properly classified, no conclusion can be made until the question of sufficiency has been answered: Are the data of enough combined weight to prove the point? Are they adequate to solve the problem?

Clearness.—Can the data be grasped by the pupils? Are these of sufficient importance, suited to the age and understanding so as to enable them to gain enough knowledge for making extended, clear statements in support of the problem?

6. Values attributed to the problem method.—The problem method may be said to possess the following values:

1. The pupils have a definite goal to reach, and each assignment leads them toward the solution.
2. Pupils receive a direct training in weighing values, because, independently, they must select and reject material bearing upon the subject under discussion.
3. They are trained in habits of mind that will be equally useful to them in the solution of other problems in other subjects or lessons.

Therefore the problem method is generally useful, for it is not confined to one subject.

4. The principles acquired in the problem method —learning how to study—are identical with those used in the solution of life problems.
5. Problems and projects if selected with due regard to the pupils, and if accepted by them as their own, are likely to be of sufficient interest to cause pupils to go to work with enthusiasm.
6. The solution of each problem is but one more link in the chain of giving the pupil an insight into geographical principles and data on geography as a whole.
7. In solving problems, children are enabled to acquire, to organize, and immediately utilize certain essential material.
8. The solution of problems encourages pupils to use supplementary texts and books; causes them to collect material bearing upon the problem from sources other than the school room.
9. In the solution of problems, pupils can develop a desire to read for pleasure and information, since they have a specific purpose for which to read.
10. By means of live problems, pupils realize that geography is concerned with the present; that it is a living, growing subject, involving knowledge of the world and its people, of the work that they do, and of the interdependence of people in the world as the home of man.

7. Illustrations of problem types.—We might further illustrate how the problem method is applied

to instruction by presenting two problems with their outlines only. Therefore, no statistical information is supplied, though up-to-date statistics should be incorporated when the problem is applied in classroom work.

Suppose the British Empire be studied according to the following problem: Why has Great Britain the largest merchant marine and navy in the world? and the following topical arrangement:

ORGANIZATION

I. Conditions underlying the development of Great Britain.
  1. Physical conditions:
    A. Location (latitude and longitude with reference to other nations).
    B. Climate (winds, rain, bordering bodies of water and ocean currents).
    C. Surface—rivers and mountains.
    D. Shorelines.
  2. Industrial conditions of Great Britain:
    A. Natural advantages:
      (1) Minerals, (2) Lumber, (3) Water power, (4) Nearness to sea (no place more than seventy miles from the coast).
      (5) Physical conditions.
    B. Disadvantages:
      (1) Lack of raw materials (foods and textiles).
      (2) Lack of some minerals (iron, nickel, copper).

(3) Property control (large landed estates and unfair taxation).

C. Sources of raw materials traced. Desk outline maps to be used.

3. The influence of government:

A. The people intelligent, industrious, enterprising.

B. The form of government compared with the United States and Germany (brief comparison, including ruler, law-making body, prime minister, *et al.*).

4. Colonial possessions of the British Empire:

A. Important to the welfare of the Empire:

(1) Canada, (2) Australia, (3) New Zealand, (4) India, (5) South Africa, (6) Egypt, (7) Jamaica and other possessions in the Western Hemisphere.

B. Important to the Empire strategically:

(1) Gibraltar, (2) Malta, (3) Suez, (4) Aden, (5) Singapore, (6) Hongkong, (7) St. Helena, (8) Bermuda Islands, (9) Falkland Islands, (10) Islands in the Southern Pacific.

II. Power on the seas:

1. Necessary for defence, for the development of the home land, for world trade and colonial control.

2. Made possible by resources such as coal, iron, and lumber in Britain; by the character of the shoreline, and by the skilfulness of the people.

Now let us assume that the knowledge obtained in the solution of the above problem about Great Britain is a matter of common knowledge to all of the pupils. Let us say that what they have organized about England they can use by way of a comparison. So, left to their own initiative, they are given another problem for solution, supplied with the bibliography and material, and, divided into groups, they solve, after a number of days of investigation, the following problem, "Can Japan be to the East what the British Isles are to the West?"

REFERENCES

"Life in Asia," Smith (Silver); "Toward the Rising Sun," p. 57, "The Wide World," p. 28, in the "Youth's Companion Series," (Ginn); "Asia," pp. 15–75, Carpenter (A. B. C.); "All Around Asia," Redway (Scrib.); *National Geographic Magazine*, July, 1914; see also Appendix B for other illustrative material.

ORGANIZATION

I. Their positions are similar:
1. England is near the western end of a great land mass, Japan is near the eastern end of one.
2. England is separated from the land mass by the North Sea, Japan by the Yellow Sea.
3. England has the Atlantic on the west, Japan the Pacific on the east.
4. Each is opposite the United States—one in one direction, the other in another. Compare trade relations with the United States.

II. The climates are similar:
1. There is variety of climatic conditions, be-

cause they are both in the temperate zone. England receives the influence of the Gulf Stream; Japan, the Japan Current.

2. There is abundant rainfall. Compare London and Yokohama in regard to heat belts.

III. Area and population compared:

1. Japan is a little larger.
2. Japan is more densely populated.

IV. The occupations are similar:

1. Both are great manufacturing centers.
   - A. Minerals—coal and iron.
   - B. Cheap and skilful labor.
   - C. Mountainous surface gives abundant water-power.
     - (1) Rivers are short and swift.
   - D. The coastlines are irregular.
     - (1) This renders raw materials accessible.
     - (2) There is little farming on an extensive plan.
     - (3) There are extensive fisheries.
     - (4) Commercial advantages are similar.
     - (5) Industries are well developed.

V. The people are of different races, but they are both progressive, intelligent, industrious and enterprising. Other characteristics differentiate them. Attitude of United States toward emigrants from each country.

1. The insular form has rendered them free from invasion; it has made them self-reliant.
2. Communication with Japan has been fostered —Commodore Perry, 1854.

3. At the outbreak of the war in 1914, Great Britain had the first navy (tonnage) in the world, and Japan the fifth.

8. Minimum requirements of place geography.—In the organization of material bearing upon problems, consideration must be taken of what are known as the minimum requirements in place geography. These have a definite place in problem study. Without them an effective solution would be impossible. By means of certain facts, pupils can advance very rapidly toward the goal they are seeking. Let us see what place-facts must necessarily be brought out in a study of the two problems on Great Britain and Japan. In the case of Great Britain, first, the surrounding waters had to be noted: the North Sea, the English Channel, the Irish Sea, St. George's Channel, the Atlantic Ocean, and the Strait of Dover. Next, in a consideration of the surface features, the Severn, the Thames, and the Firth of Clyde must have been observed, as well as important mountains. In order to follow the development of industrial conditions, cities like London, Liverpool, Sheffield, Manchester, Birmingham, Cardiff, Dublin, Queenstown, Belfast, Glasgow, and Grimsby occupied the pupil's attention. In tracing the colonial possessions, the important cities of Ottawa, Halifax, Quebec, Montreal, Winnipeg, and Vancouver in Canada, St. Johns in Newfoundland, Melbourne, Sidney, and Canberra in Australia, Wellington in New Zealand, Delhi, Calcutta, Bom-

bay and Madras in India, Johannesburg, Kimberley, and Capetown in South Africa, Cairo and Alexandria in Egypt, Colombo in Ceylon, Singapore in the Straits Settlement, and Hongkong in China could be listed. The psychological advantage of obtaining place-facts in this manner is obvious because of the number and variety of associations that are necessarily brought into play. Assuming that provision has been made for these facts to be recorded in notebooks, further use of such minimum requirements in place geography for drill, short review, and application to other problems is both necessary and desirable.

CHAPTER IV

PROJECTS AND PROBLEMS

1. **The project is a vital factor.**—The problem to be solved, the questions to be asked, the projects which evolve, the application of principles to a specific question of large scope—these are factors which outline the definite procedure of work.

When the necessity for the selection of a project arises, and after the desired project has been selected and begun, care must be taken that the very desire to attain success should cause the pupils to begin work with enthusiasm. Getting pupils away from the sole use of the textbook by supplying stimulating materials and then giving them the opportunity to work out the ideas suggested, constitutes one of the best ways to insure the success of instruction.

There is another way in which project and problem teaching meets the essential demands of modern pedagogy: it provides opportunity for continually working with one's fellows. One of the social aims of education is to teach coöperation and mutual helpfulness. In this method of instruction, ample opportunity is afforded for the development of such social virtues. When we provide our pupils with many of the sources from which they can get informa-

tion, sources involving manipulation, visual exploration, and the fundamental impulses of activity, we are treading upon firm ground. When the activities of the pupils are made educative, when they are steered to worthy and successful ends, we are building upon safe foundations.

William H. Kilpatrick classifies projects as follows: "Type 1, where the purpose is to embody some idea or plan in external form, as building a boat, writing a letter, presenting a play; type 2, where the purpose is to embody some (esthetic) experience, as listening to a story, hearing a symphony, appreciating a picture; type 3, where the purpose is to straighten out some intellectual difficulty, to solve some problem, as to find out whether or not dew falls, to ascertain how New York outgrew Philadelphia; type 4, where the purpose is to obtain some item or degree of skill or knowledge, as learning to write grade 14 on the Thorndike Scale, learning the irregular verbs in French. It is at once evident that these groupings more or less overlap and that one type may be used as means to another as an end."[1]

The use of the term "project" which follows may be said to pertain, for the most part, to type 1 of Kilpatrick's classification. One may be able to observe, however, that both the previous presentation of the use of problems and the presentation in this chapter disclose a process of instruction which can include all of the types referred to above.

[1] "The Project Method," p. 16. William H. Kilpatrick. *Teachers College Bulletin*, Oct. 12, 1918, Columbia University, New York City.

2. How projects aid instruction.—Pupils are roughly classified into ear-minded, eye-minded, and motor-minded groups. Some learn quickly through what they hear, others by means of what they see, and still others through what they do. Projects consist in doing what pupils think it is worth while to do. By means of them the subject of geography is vitalized, because projects involve the active and motivated participation of the pupils in carrying them to successful conclusions. The treatment of topics is formal, in which teachers do most of the thinking and the pupils the absorbing. Projects can originate in the questions that pupils ask, and these questions usually arise in the recitation, socialized through the problem method and group instruction. When there is interest, questions arise, and the need of answering them is imperative. Answers need not always be given verbally; they can be acted. A class may keep records of the weather and the seasons; an individual pupil can make a weather vane or a wind wheel. Several Camp-fire Girls might, in the process of winning honors in campcraft, keep scientific records and seek to interpret weather lore. Scores of activities are possible in geography.[2]

3. The procedure illustrated.—It is the real need for objective illustration that makes projects vital.

[2] The "Book of Knowledge," 24 vols. (The Grolier Society, New York), and Foster's "Something to Do—Boys" and "Something to Do—Girls" (W. A. Wilde Co., Boston), contain suggestions which are indicative of the wealth of material that can be secured.

To supply the wants and needs of pupils, especially in an objective manner, is one of the interesting missions of geography; and projects not only serve this purpose, but they also help to vary the instruction. Getting the pupil's interest in a question like, "What is man's relation to climate?" is a difficult task because the subject is formal and abstract. The problem and the project offer a way out of the difficulty.

In beginning the subject, divide the class into groups. Let some pupils bring in reports on people who live in deserts, others about those who live in cold climates, showing how the food, the occupations, the houses, and the manner of living are influenced by climatic conditions. Others may cover the field of temperate climate, and so on.

In the *Journal of Geography*, October, 1918, there is a series of thirty questions which could be used in the study of the subject.[3] These questions, which follow, illustrate how the curiosity of pupils might be aroused and how pupils can be stimulated to find out more about climate.

QUESTIONS

1. Why is the atmosphere more dense at sea level than at high altitudes?
2. Why does warmed air tend to rise?
3. Why does dew form on cool summer nights?
4. Why does it form more abundantly on some objects than on others?

[3] "Why's on the Atmosphere and Climate," *Journal of Geography*, October, 1918.

5. Why does dew not form on cloudy or windy nights?

6. Why do clouds form?

7. Why do they form at considerable altitudes?

8. Why do clouds sometimes seem to melt away or dissolve?

9. Why are most clouds white? Why are some very dark? Why are the sunset clouds often brilliantly colored?

10. Why is a cloudy night in autumn usually warmer than a clear night?

11. Why is the sky sometimes free from clouds?

12. Why do we not expect rain from a clear sky?

13. Is there any basis for the proverb—"Rain before 7, clear before 11"? Explain.

14. Why does moisture collect on the ice pitcher? Why not on a pitcher of warm water?

15. Why does our breath show on a cold day and not on a warm one?

16. Why does water "boil away"?

17. Why do clothes dry rapidly on some days and slowly on others?

18. Why is it difficult satisfactorily to press a garment in certain kind of weather? What kind of weather?

19. Why may even a sheet of paper over a flower bed save it from frost?

20. Why does fanning cool us?

21. Why is mercury used in a barometer?

22. Why is mercury used in a thermometer?

23. Why does the mercury in the barometer rise and fall?

24. Why does the mercury in a thermometer rise and fall?

25. Why does the mercury in a barometer stand higher at sea level than on a mountain?

26. Why is the barometer used in determining altitudes?
27. Why is the air near the earth's surface usually warmer during the day time than that higher up?
28. Why is a stream of cool air sometimes found flowing down the stairways of our houses in winter?
29. Why does a chimney "draw"?
30. Why does wind hasten evaporation?

With the development of such questions, pupils will seek to prove the truth of the facts by doing and making certain things. They will experiment under direction, learning by doing. Projects, then, are set up in proportion as they are really needed and demanded by the class, all assisting in appreciation of the significant facts about climate—conditions of temperature, conditions of moisture, composition of the air, winds influencing weather, the average weather conditions constituting climate, and, finally, climate affecting the mode of living, the occupations, the temperament of people, giving them their soil and their minerals, shaping their hopes and their ambitions, and causing the great problems of exploration, engineering, and similar human endeavors.

In schools having manual training, cooking, and general science, there should be the closest coöperation between these departments and that of geography. Examination of a book like Van Buskirk and Smith's "The Science of Everyday Life" (H. M.) will convince the teacher that there is some real help to be received through coöperation with a department of general science.

SUGGESTIVE PROJECTS

1. Make a small windmill. Directions are given in "Practical Things with Simple Tools." M. Goldsmith. (Sully and Kleinteich).
2. Make a small airplane. (See reference above.)

In Van Buskirk and Smith's "The Science of Everyday Life" (H. M.), the following may be found:

3. Make a simple barometer. Page 5.
4. What is the relation between air pressure and the weather? Pages 5-6.
5. How to keep a weather record. Page 97.
6. How does water vapor get into the air? Page 98.
7. How is air affected by a change of temperature? Pages 98-99.
8. How is temperature measured? Page 99.
9. What makes the rain? Page 100.
10. What makes the dew? Page 100.
11. How to understand a weather map. Page 101.
12. A trip to the local weather bureau to learn its work. Page 104.

SUGGESTIVE REPORTS

1. Work and Life of Galileo. "The Story of Great Inventions," E. E. Burns. (Harpers).
2. Man's Conquest of the Air. "Stories of Inventors," Russell Doubleday. (D. P.).
3. Wonders of the Atmosphere. "The Wonder Book of the Atmosphere," E. J. Houston. (Stokes).

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November, 1919. "The Project-problem Method in Geography." Mendel E. Branon. *Journal of Geography*, 16: 333–38, May, 1918. "Problem Method in Geography." Mrs. Ina Lockwood. *School Education*, 39: 34–35, November, 1919. "Teaching Geography Through the Problem Method." W. Jerold O'Neil. *Popular Educator*, 37: 22–23, September, 1918; "Project-problem Instruction in Eighth-grade Geography." Jennie Williams. *Teaching*, 4: 11–15, February, 1919. "The Motivation of Geography." "The Motivation of School Work." H. B. Wilson, and G. M. Wilson, pp. 133–57. (H. M.) "The Partition of Africa—A Seventh-grade Geography Unit." Edith P. Parker. *Elementary School Journal*, November, 1919. Part I, "New Materials of Instruction," pp. 83–131. *Nineteenth Yearbook* of the National Society For the Study of Education. Public School Publishing Co., Bloomington, Ill.

4. **Kinds of projects.**—Through projects the power of initiative and executive ability can at least be discovered; and it is possible that these may be developed.

A project may be a large unit of work, upon which the effort of the whole class is centered. If, in a study of the United States, regional product charts are prepared, this is a project in which the whole class participates. (See Page 139). The product map of the United States is a popular example of the group project, for each pupil brings samples of different articles, or pictures of articles, raw and manufactured, for placement upon a large outline map of the country: cotton in the Southern States, coal in Pennsylvania, wheat and flour in the central West, and so forth; and these are fixed upon the map in some convenient way. Some teachers like to have *papier-maché* maps made; others like

to get the children interested in sand table representations. All of these are examples of group projects.[4]

When compositions, spelling papers, art posters, placards, charts, and pictures of any one unit-study of geography are made and collected, and are put on exhibition; and when the selection, arrangement, and mounting of the material are required, there again we have a group project.

A project may be a smaller unit of work involving a relatively short period of time for its completion. In the higher grades the judgment and the skill of pupils can be tested by designing cut-out poster effects typical of certain countries. These cannot be planned successfully unless the pupil knows about the peculiar customs, the native dress, the scenic wonders, and the products of a country. Each pupil, in projects of this kind, must select a subject according to his own interests; but he should receive assistance in expressing satisfactorily his ideas in subject matter, color values, perspective, mounting, etc. A promised exhibit of this material adds to the interest and it puts pupils on their mettle to do something worth showing.

Again, a project may be a certain, specific piece of work of an individual pupil, such as filling in a desk outline map with the necessary data or painting the flag of a country or the preparation of an outline containing interesting material concerning a place or

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[4]Dramatization as an example of a group project is illustrated in Appendix D.

country about which he wants to tell a friend who is unable to attend school.

5. Classroom materials necessary.—Besides co-operation with other departments, an attempt should be made to have some of the following materials supplied:

1. Maps. Adequate up-to-date maps, designed to supply the need of gaining accurate conceptions of place geography and the distribution of life, etc., are essential.

Outline wall maps for class use and printed desk outline maps for individual pupil's practice are now in common use and are practical necessities. They may be obtained from various publishers.

Relief and political maps should at all times be placed in full view of the class. (See Page 16).

2. Globes. Both slated and colored globes are used. For mathematical geography, globes are indispensable. For obtaining clear conceptions of geographical relations, they are without comparison.

3. Atlases are most valuable aids to the work, provided they are up-to-date. The out-of-date atlas affords very poor assistance to the modern reader. (See Appendix B).

4. The "World Almanac," published by the Press Publishing Company, Pulitzer Building, New York, and obtainable at bookstands, is highly valuable for reference work. It is published annually and the information contained therein is thoroughly modern.

5. Pictures, railroad folders, post cards, slides, the baloptican, the stereoscope, the motion picture, are all valuable auxiliaries to teaching. (See Appendix B).

6. Publications. Various departments of the government publish valuable pamphlets and bulletins. (See Appendix B).

A good newspaper or newspapers with Associated Press news and unbiased reading matter is most helpful for teachers.

The Chambers of Commerce of various cities furnish material of interesting character upon request. (See Appendix B).

Organizations like the Pan American Union, Washington, D. C., are glad to render service. Large industrial and manufacturing concerns distribute instructive material through their educational departments. (See Appendix B).

The *National Geographic Magazine* has for many years provided schools with material of excellence. To it many classrooms are subscribers. Teachers find the *Journal of Geography* and the *Geographical Review* of large and effective service.

7. Bulletin Boards. For holding current clippings and extracts from magazines, notices, and the like, at least one bulletin board is necessary.

8. Scrap books and notebooks (loose leaf), for holding advertisements, illustrations, notes, newspaper clippings, outline maps filled in, essential facts and interesting data of many sorts can be used to advantage.

9. Specimens and exhibits. While raw materials of commerce and manufactured articles may be obtained from the educational departments of many large manufacturing and industrial concerns, teachers and pupils can, individually and collectively, secure many valuable specimens of rocks, minerals, and the like through excursions. The science department can also provide interesting material.

The government departments at Washington sell cases containing specimens of various sorts. (See Appendix B).

10. Supplementary books. Books of history, literature, commerce, statistics, geography, and travel should be selected for the work and kept in the department of geography or in the classroom, as a part of the school library. (See pp. 92-98).

11. Experiment tables. To have an experiment table for modeling is most desirable. Shallow tins or oilcloth or even heavy wrapping paper for protecting the desk may be substituted. The best material for temporary modeling is moist sand. Plasticine finds practical use in the hands of many successful teachers, it being applied not only to modeling, but also to desk demonstrations, when, by quickly rolling or pulling the material and otherwise manipulating it, it is placed on view to represent certain comparisons, etc. Practical demonstrations are easily made. For instance, the relative output of potatoes in one country in comparison with that of another may be represented by two plasticine balls, quickly rolled, approximately correct in ratio. The use of this material is valuable in the hands of a skilful and enthusiastic teacher.

12. A blackboard, in full view of the class, accessible to the teacher, who can turn and make quick, comprehensive diagrams and drawings and other graphic representations is often considered unnecessary; but, without this facility, many lessons are failures.

Teachers will do well to make an inventory of the work of the grade which the course of study demands, by laying out their term's problems and

projects. After this has been done, an accurate and comprehensive requisition can be made for the material necessary for the success of the term's geography course.

6. Group instruction.—In carrying out projects, in the solution of problems, teachers will find that some pupils are more rapid workers than others. These can be employed to great advantage in mutual helpfulness and coöperation, for they may study maps required for class discussion, when the retarded pupils are reciting and thus prepare themselves to assist the teacher in bringing the work up to a definite focus; they may provide the models which are required for project work; they may arrange the lantern slides needed for illustrative purposes; they may select pictures for presentation and distribution—in these and in many other ways proficient pupils can assist materially, by the group plan, in advancing the class as a whole toward a broader geographical viewpoint.

In order for children to be able to give an intelligent and essential description of any particular region, one must teach certain principles applicable to the study of that particular region or place. By possessing sufficient acquaintance with the process of applying these principles in the most effective manner, the pupils acquire the power of studying, and also gain the knowledge of how to proceed in the acquisition of additional facts.

Topical treatment in problem study.—Let us con-

sider the following arbitrary outline of an order to be followed in the study of a country as a whole and then let us apply the principles involved: Position, size, climate, vegetation, minerals and manufacturing, occupations, communication, and distribution of population in relation to occupation.[5] It is to be understood that a study of surface features is to be included in these topics.

Now let us suppose that a certain country is being studied by groups, in relation to the above topics. Let the teacher arrange the class into five or six groups. Let the pupils in group one discuss the results achieved in regard to "position and size," while pupils in other sections take notes; and so on with the remaining groups, considering "climate," "vegetation," and so forth in the order named. The later stages of treatment will be devoted to those unique features which give individuality to the country in question.

Consider the problem, "Can Japan be to the East what the British Isles are to the West?" (See pp. 57-59). When the above procedure is applied, emphasis is thus placed upon significant features with the result that these become uppermost in the minds of the pupils, to the relative elimination of those deserving a subordinate rank.

When a different country is studied, under another problem, group one should do the work of group four or group five and so on, with the result that each group in the study of five or six different countries

[5] For sections of the United States, see pp. 134-154.

2. Group Instruction

A PROBLEM IS BEING SOLVED BY PUPIL ACTIVITY. ONE GROUP IS GATHERING INFORMATION FROM REFERENCES; ANOTHER GROUP IS ENGAGED ON DESK OUTLINE MAPS. THE TEACHER IS AIDING A PUPIL

will have investigated all the general aspects necessary to the study of any one country. After practice of this kind, each pupil learns how to gain the essential characteristics or how to make a rapid survey of a country without aid from the teacher. He becomes an independent unit in investigation.

7. **Necessity of recording main problems.**—In order to achieve this result, however, care must be taken to see that every one develops the ability to organize, to collect, and reject material; that there is a growing desire to read for pleasure and information; and that ample opportunity is given for application of the data obtained. In other words, individuals should gain facility in solving problems. Independent accomplishment by pupils, in the successful study of a few countries, gives them a calm and deliberate power in performing the tasks assigned to them. Particular emphasis should be given to the matter of recording in order that, thereby, the significant, well-defined, outstanding features or main problems connected with the subject matter under consideration may be given due prominence. For instance, in a study of Brazil (See pp. 200-210), the topics are about the size, rivers, climate, etc. Statements are made of the following significant facts: Brazil is very large and richly endowed; its rivers possess a degree of importance greater than do most rivers of the world; its climate is conducive to a varied vegetation. All of these facts are important;

a record of them is therefore essential. These generalizations are obtained by the pupils as a result of investigation, and the statements in regard to them are contributions by the pupils themselves. Such training as the above is so often overlooked in the work of the schools that special emphasis is here called to the extreme importance of the procedure, for the habits acquired, developed, and perpetuated by constant school-room practice along this line result in immeasurable benefit to the pupil's growth into a student and citizen.

Desk outline maps for recording.—Little comment need be made upon the questions designed to test the knowledge gained in the manner mentioned above, except that such questions should refer to the names of places of comparatively great importance and should not be merely a list of names and places which the pupils must answer in numerous oral quizzes. A way both to develop and to test knowledge about geography is through constant use of outline maps. For illustration, submit the following to the pupil, "On the outline map of South America, insert three rivers, three large ports, and indicate the scale of miles approximately." By use of relief outline maps, one may likewise find out how intimately the pupil is acquainted with the real facts. Tests, with the use of such maps, containing questions like, "Describe and illustrate with diagrams the valleys of the rivers which enter the sea near San Francisco. In what part of Europe is the coastline similar to that of New York and Charleston? Can you offer

an explanation for this embayed coastline?" are highly valuable.

8. A study of Africa by the problem method.—Miss Edith P. Parker[6] treats the subject of Africa in a seventh grade by the problem method as follows:

THE PARTITION OF AFRICA

1. A general survey of the continent based on a study of the physical map.

2. Newspaper clippings and magazines about Africa were presented.

3. Three problems were set up:
   (1) How is Africa divided among the European nations?
   (2) How does Germany's late share compare with the shares of other European nations?
   (3) What determined the size and location of the share each country has?

4. Problems (1) and (3) were answered by a study of the political map, the class text and by the use of such references as Chamberlain's "Africa," Carpenter's "Africa," Jacobs' "Story of Geographical Discovery," and "World Book" (a child's encyclopædia).

5. Hectographed maps were distributed to the class. These were obtained from Keltie's "Partition of Africa."

6. Selections were read to the class from Keltie's "Partition of Africa," and from Lucas's "Historical Geography of the British Colonies."

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[6] *Elementary School Journal*, 20: 88–202, 1919, University of Chicago.

7. Blackboard study was furnished the class by passages selected from Powell's "The Last Frontier."

8. Group work.—In (2) above, each child chose a group of colonies or a colony for detailed study according to a prepared outline. Reports were made to the class.

9. On a cork bulletin board (3′ x 4½′) the outline of Africa was traced. The colonies were cut out in brightly colored cardboard and placed on the outline by one child, while another briefly described them.

10. Current events were reviewed (with the newspaper clippings and magazine articles already on hand) in the light of the information which had been gained.

Observe that, in this problem, there was need of preparation by the teacher. References were consulted; the problem was selected; maps were hectographed; proper materials for projects were collected; literary passages from Powell's "The Last Frontier" were chosen; passages to be read to the class were apportioned, and map study was planned.

Notice, too, that a socialized recitation ensued. All of the pupils took part, for newspaper clippings and magazines were brought; selections were read by certain pupils to other members of the class; a survey of the continent through physical map study was made; group study of the colonies, calling for reports of the class, was required, and a review was called for.

Note, too, that project work was in evidence when

the "cardboard colonies" were fitted to the cork map; when the hectographed maps were filled in, and when the products of Africa were displayed.

9. The democratic tendency of geography.—The subject matter of geography presents the reconstructed lives of people engaged in activities befitting everybody and not just an aristocracy of nations. All progressive people, geography points out, are engaged in improving the quality of the output of the world and it would have us become intimately acquainted with these people, our own in particular, who have made not only tremendous but also successful efforts to harness the forces of nature in order to supply the needs of the world; who have changed the face of the world with factories, farms, mines, and cities; and who exchange commodities with each other in order that everyone may share in the good things the world produces.

In this tremendous struggle America has been in the thick of battle. Beginning with supplying the primary wants of food, clothing, and shelter, higher levels of thought and action have been reached. In this record of achievement, millions of Americans have contributed. Patient and skilful labor has been combined with brilliant inventions and startling discoveries and with those not so brilliant or so startling but nevertheless extremely useful. America's democracy of opportunity has encouraged the rich and the poor, the strong and the weak alike, to assist not only in the mastery of the immediate environ-

ment, but also in the effort to supply the world, in both quality and quantity, with those things which the world expects of us. Labor-saving devices, such as the reaper, have not only increased the amount of man-unit production but they have afforded men, in many instances, more humane, upright opportunities to do more work with less exertion.

The method employed in the preceding chapters in which pupils can be brought into effective contact with the best modern educational thought and practice in the process of solving up-to-date and vital problems should, by its very application, prepare pupils for effective participation in democratic society; and, indeed, in solving such problems, pupils are then and there participants.

CHAPTER V

OTHER AIDS TO INSTRUCTION

1. **Journey geography.**—Journey geography is a name given to that type of presentation which seeks to inform the pupil by arousing his interest in some imaginary trip. A juster balance between the serious side of geography and its lighter aspect is secured by such a type of presentation. Like the real traveler who has seen strange sights in foreign lands, and who, when he returns home finds appreciative audiences, the pupil-traveler can now take his journeys. Now that the world is coming to be recognized as a family of nations there is constantly increasing a certain eagerness to hear about the customs and the manner of life of other peoples in other lands.

For a study of this character adequate material is required. Specific preparation must be made for the work. Some time must first be spent in arousing the interest of children in the section to be visited. By the use of railroad folders, or boat routes, the itinerary must be planned from the point of departure; the objective should be noted with the children's books open to the map where the distance to be traversed, the cities en route, side trips to be

taken and the like are to be determined upon. By pictures, picture postals, magazines, readers, and textbooks, an opportunity is afforded to make the trip as real as possible.[1]

Journey geography illustrated.—Suppose a journey to the Pacific Coast from a point near the Mississippi River is planned.

Suggestive of the material which should be on hand, railroad folders of the respective routes should be secured, for the itinerary must be planned. Pictures illustrating special points of interest, industries, agricultural scenes, and many other topics should be ready for the pupils.[2] Adequate maps, including desk outline maps for each pupil and the railroad map of the United States should be provided.

Since such a study can be advantageously studied by groups, form them according to the routes which would be followed: some would probably like to take the Union Pacific through Colorado, Wyoming, Utah, and Nevada; others might desire to go by the Santa Fé across New Mexico and Arizona; and others might choose the Northern Pacific or Great Northern by the Yellowstone or National Parks through Wyoming, Montana, Nevada, Washington, and Oregon.

Next in order comes the planning of the trip.

[1] See Appendix B.

[2] For instance, one book, "Scenes from Every Land," by Gilbert Grosvenor, published by the National Geographic Society, contains the following pictures: Sea of fog from Mount Wilson, California; Eliot Glazier at northeast side of Mount Hood; a yucca, seen on the slopes of Mount Wilson; drying seedless raisins in California; seedless Sultana grapes grown by irrigation near Carlsbad, New Mexico; date tree in Salt River Valley, Arizona; winesap apple trees, Yakima, Washington; sheep in the Truckee-Carson Project of Nevada. See Appendix B.

Clothing must be selected in order to be prepared for the weather conditions that might be encountered. Some idea of the sights which are expected should be listed, so these will not be overlooked en route: mountains, rivers, valleys, forests and forest reserves, arid plateaus, grazing areas, irrigation projects, mineral wealth, national parks, cañons, hydroelectric plants, unusual natural phenomena, fisheries, ranches, fruit orchards, and dozens of other sights.

Then, since several parties (represented by the class groups) are to take different routes, a meeting place should be agreed upon. Let it be San Francisco on a certain date. In this city, since good travelers keep diaries, plan to have letters written home telling about the journey.

When everyone shall have met in San Francisco, and this city shall have been toured,[3] the whole party should prepare the return journey which will be taken all together. Leaving San Francisco, they could go to the Hawaiian Islands, thence to the Gulf of Mexico through the Panama Canal and from there, by a chosen route, head toward home.

Through the Panama Canal, let it be noted, products of the world pass: those from the Far East, those from the western coasts of North and of South America bound for the eastern coast of the United States or Europe or *vice versa*. At the canal, an objective for a study of the climate, the vegetation, and the products of Central America is afforded.

[3]See pamphlets issued by the San Francisco Chamber of Commerce. See Appendix B.

2. Stories and literature.—The mode in common practice in public schools to-day reveals the fact that initial instruction in geography consists in story-telling. Before beginning studying from a textbook, the pupil's knowledge of other parts of the world is presumed to have been gained through stories he has already heard. He knows that the city in which he lives or the county where his home is located and his own country are not all there is; he realizes in a vague sort of way that there is something larger still, which he thinks of as the world. What he knows of parts of the world through the stories he has had related to him is neither well defined nor in connected sequence. It thus becomes the business of the teacher to get some order out of chaos.

Relating a sequence of stories, say of the exploration of the world, woven around the names of a few famous explorers and travelers seems a safe and interesting way to begin. Columbus, Ponce de Leon, Livingston, Daniel Boone, Champlain, and Marco Polo are but a few of the names that suggest themselves. Studies relating to the exploits of contemporaneous men such as Nansen, Scott, Peary, Roosevelt, and others possess much educational value. The contributions of Walter Reed, of Matthew Fontaine Maury, of American geographers in the World War, and similar people, when attractively presented prove to be of distinct interest.

At the present time the intense interest developed by the World War affords an opportunity for enlisting the attention of pupils. For example, they

respond readily to questions such as, See from what countries and by what routes sugar, meats, fats, flour, and coal, respectively, were carried to the starving Belgians; or, from what countries and by what routes did the Allies get men to help them fight the Germans?

Some teachers have seen successful in developing these ideas by tracing the sources of common things upon which we are dependent in our everyday life. For instance, Miss Lydia R. Blaich, would take "A Trip Around the World in Our Town";[4] teaching pupils that, "The familiar articles all around you speak of the service of your far-away, unknown brothers and sisters.

"Look about your parlor. The rug on the floor may have come from Turkey. The Japanese print adorning the walls traveled thousands of miles across the Pacific from Yokohama to San Francisco before it came to your house. The mahogany of the piano came from forests in Mexico or Central America."

In the dining room she would have children observe that, "The tablecloth of Irish linen came direct from Belfast. The dishes of Haviland china were made in France. The coffee very likely came from Brazil, for that country produces three-fourths of the world's supply; and the sugar probably was imported from Cuba or Hawaii."

The story of exploration which is probably most familiar is that of Columbus. In the portrayal of

[4] "Three Industrial Nations," L. R. Blaich. (A. B. C.)

this event a number of instructive features about the life of Columbus illustrate the value of this method. In his boyhood, not only home and parental influence, but also his education, adventures, and environment are informing. The influence of the ideas of his age are enlightening, because the contrast between the superstitious beliefs and the inaccurate geographical knowledge of his time and the courage of Columbus' belief, depict an example worthy of emulation.

The fact that great things are accomplished only after hard training is illustrated by the story of Columbus. Witness the expedition against Naples, the shipwreck on the coast of Portugal, and other dangerous trips along the shores of Europe and Africa.

That Columbus was a man of stout beliefs and of purpose is also contained in the narrative of his life. Though hampered and discouraged by lack of funds and the distrust of most people, who could not believe in his heretical ideas, he won friends in spite of these obstacles. He made his friends believe in him. Among them was his brother, who was a maker of maps; his father-in-law, who was an explorer; the old friar, Queen Isabella, and Toscanelli, the geographer. It was his band of friends who helped him set out on his famous voyage across the Atlantic.

The start was made at Palos on September 3, 1492. The *Pinta*, the *Nina*, and the *Santa Maria* were equipped and manned by a queer crew—ad-

venturers, criminals, and some real leaders. As to the supplies on board, a comparison with those of a present-day exploring party would be startling.

How courageous Columbus was and what a bold sailor he was is a continuous story of the voyage. His motley crew gave him no end of trouble; but finally they spied land, and on October 12, 1492, they set foot on the shores of the Western Hemisphere, probably on one of the Bahamas. It is certain that Cuba and Haiti were visited. It was a strange land to Columbus and his followers, for the natives, the climate, the vegetation—almost everything was different from what he expected to find.

During the voyage, the *Santa Maria* was wrecked, so Columbus had to sail back home with the *Pinta* and the *Nina*. Though these boats were separated on the return journey, they are said to have reached home the same day, bringing gold, birds, animals, plants, and six natives, all of which created great excitement in Spain and provided ample proof of Columbus' success. Consequently, Columbus was loaded with honors.

Not content to remain idle, Columbus again crossed the ocean, this time reaching the island of St. Dominica. In two other voyages he discovered South America and the Gulf of Mexico. But after the second voyage, many troubles beset him. After a long illness, he was sent to Spain in irons (by a new government, however). Amid the base ingratitude of his people and in disappointment he died in Spain on May 20, 1506.

The effective arrangement of the story to bring out the salient features which are genuinely educative because they advance the pupils' ideas is, of course, a matter of importance. The stories of three other entertaining adventurers—Ponce de Leon the dreamer, Balboa the outlaw, and De Soto the wanderer—are entertaining and instructive. They offer parallels to the story of Columbus. On the other hand, the complete story of the contribution of Matthew Fontaine Maury, the founder of the new and important science of hydrography and called the "Pathfinder of the Seas," is not nearly so applicable to younger pupils because the element of adventure illustrated in the above story is superseded by the facts of science of the nineteenth century. Hence, these things are rather to be appreciated by more mature pupils. In the contributions of Theodore Roosevelt, one finds chapters of adventure combined with periods of constructive service for the geographical story.

Thus it is that the use of the story in geography does not end with the primary grades. It is effective in the more advanced grades and for the older pupils. To build a story around a subject like, "Suppose George Rogers Clark had not conquered the Northwest Territory from the British," is a stimulating exercise which affords one of the many valuable opportunities for exemplifying the interrelationship between the historical evolution and the consequent geographical status of countries.

In order to illustrate how this story might be con-

structed, the following outline indicates the principal features which should receive attention.

SUPPOSE GEORGE ROGERS CLARK HAD NOT CONQUERED THE NORTHWEST TERRITORY FROM THE BRITISH

(*Imaginative treatment*)

I. Would the United States be as wealthy?
   1. The United States would export less, and it would have to import more.
   2. Rich products would be lost to the United States—minerals, grains, lumber, animals, etc.

II. In case of unfriendly relations with England, what would happen?
   1. British troops could easily invade our country.
   2. England could interfere with trade on the Mississippi and Ohio.

III. The United States would have little control of the Great Lakes as a highway of trade. What effect would this have?
   1. Population would be less by more than twenty million.
   2. Territorial area would be less by 288,703 square miles.

IV. Great cities, with their important industries, would be lost to the United States.
   1. Cleveland and Cincinnati.
   2. Indianapolis.
   3. Chicago.
   4. Milwaukee.
   5. Detroit.

Stories presenting contrasts.—Not only geography, but also those stories that present topographical

contrasts are helpful for effective instruction. The contrast between the continuous efforts of the Eskimos, for instance, and the comparative lack of effort required to obtain food in the tropical forests and jungles is significant by reason of the dissimilarity in climate, life, vegetation, and natural resources. In this latter way, too, pupils are introduced to the real meaning of geography. By comparing the situation at home with that on the deserts, where any form of life exists with great difficulty; by contrasting the northern forests, where lumbering receives introductory treatment, with the lands of farming and cattle raising, where food is obtained in abundance; by comparing other sections of the United States with sections of the world across the seas, by means of narrative and anecdote, the alert teacher gains and holds the pupils' attention. Gradually, these stories furnish the correct names and locations of continents and countries, and the significance of valleys to the life of people is made known. Bays and peninsulas assume a meaning; coastlines whisper their wondrous story of cargoes received and unloaded. The notions of area and distance, at first hazy and meaningless, begin to take on definite proportions; pupils learn how the navigator depends for his existence upon a certain kind of knowledge while in mid-ocean; latitude and longitude are appreciated in the rough; what part the North Star plays, charts of coastlines for sailors and fishermen—all these become the source from which springs a taste for knowledge.

Literary stories the best.—Both stories and recitations should reveal the fundamental ideas concerned with life over the earth. The more literary the instruction can be, in the sense of presenting clear, truthful, and interesting aspects of life in the various regions, the better it is for the educational experience of the pupils. The problem of effectively presenting the drama of the reconstructed life of peoples is the task of the teacher; the children will then do their own thinking, seeing, and understanding.

On through the grammar grades, with persistent educational tread, this same world-pageant should move, further deepening the understanding and sympathies of the pupils. The argument that young pupils can not be taught by this method does not hold, because experience and educational science have informed us that children can and do acquire, because of their interest, the habit of observation of human affairs in a world-wide way during their school days. Adults who have acquired this habit attest to its incipiency in childhood. Contrast the adult who has been dosed with didactic facts in childhood with the one who, having searched for knowledge under wise guidance, feels the exhilaration of the quest. The one forgets the facts, the other possesses the long acquired secret of getting them permanently. Therefore, there is no necessity to argue for deferred values—observation of world-wide affairs and interest in them grows apace, simply broadening in comprehension and application with maturity.

Literature as presentation.—Geography is indebted then, to other subjects, history, literature, and reading in particular, as contributory factors to its vitalization. The mechanical difficulties of the daily program, especially that of a departmental one, sometimes obscure the relationship. When literature and reading can be made, by an adroit change in the daily program, to contribute to the knowledge of classes studying geography, it is well for those classes. More and more there is revealed a tendency to read narratives of adventure and travel, selected and placed in the hands of pupils for the definite contribution that they make to the other subjects of the curriculum, aiding in appreciation, but at the same time giving pleasure to the readers. Some children find such books as "Two Years Before the Mast," "The Cruise of the *Cachelot*," "Lost in the Jungle," "Adventures of Two Youths in Ceylon and India," "Boy Travelers in Australia," "The Land of Long Night," "The Voyage of the *Beagle*," "Around the World in the Sloop *Survey*," "Through the Dark Continent," and many others most interesting. Some teachers call this *reading for information;* others *reading for enjoyment*, and still others *reading for appreciation.* It is silent reading that really possesses all the factors of reading mentioned.

It might be argued that classes grow weary with books ostensibly literary but having a didactic purpose. The field is inexhaustible, for there are many books which contain remarkable and illuminating

descriptions of particular regions and acceptable narrative about important life situations. Such material is used by the most progressive teachers, not only for geography but also for other subjects of the curriculum.

It is a matter of impossibility to stimulate the process of instruction which we call problem solving without the vital contact of the pupil with literature and reading. The broader the contact of the pupil with books, the more vital geography becomes.

In like manner, the disposition on the part of the teacher to be well-informed and the consequent companionship with literature and technical reading permit her to share with the pupils the enjoyment it affords her. One of the most vitalizing forces in geography is the application of broad and sufficient knowledge and of interesting and instructive readings by well-read and progressive teachers.

3. **Correlation.**—The adjustment of the program to meet the needs of such a process is known as correlation. On one day of the week, the reading period and the geography period will be thrown together; on another day, the reading and the history can be combined; and on still another, literature and geography; again, geography and written or oral language. The same may be true of history or other subjects of the curriculum. After pupils have learned to read fluently, silent reading in particular becomes a means to an end, namely, securing infor-

mation and obtaining knowledge, appreciation, and enjoyment.[5]

Composition, spelling, and writing as means: geography as an end.—Composition should assume an important place in the interest of pupils. If they once become habituated to writing about the various phases of geographical study from the standpoint of interest; if topics about this work are carefully selected, then composition becomes a means to an end: writing to portray impressions. The best kind of compositions, including variety of expression and other important factors of this subject, are secured only when motives are afforded by much discussion and kindly criticism, as well as by provision for displaying the papers.

Spelling ideals, too, are stimulated by such means. It is a matter of common information that better spelling is secured when pupils recognize their *need* for words, and, in anticipation of this need, learn to *use* the words properly in written work.

The art of writing words, of penmanship, is also aided if such methods are employed. Pupils will usually do what is expected of them when they know others are going to be interested in what they say and write.

If the proper care is taken to let each pupil select his own subjects according to his own interests;

[5] With this idea in mind, it will be observed that, in the reference material which is listed in the following pages, occasionally there are suggested books and articles which do not, strictly speaking, belong to the field of geography, but only indirectly as a means of affording a broader interpretation of the problem under consideration. For instance, often readings in both history and literature are listed.

if enough attention is given him for the proper development of these subjects, accurate compositions, better spelling, and better writing at least should be by-products of the process.

As an example of stimulating the pupil by means of a real situation, teachers attest to the fact that both enthusiasm and interest are manifested by pupils who elect to write letters of inquiry for folders and booklets from railroads, industrial and commercial houses, chambers of commerce, the government printing office, and other sources. (See Appendix B). When the mail brings to the homes of these pupils the requested data, there is usually aroused in the pupils a desire not only to read and digest the information contained therein, but also to impart this information to other people.

Mathematics and geography.—How closely arithmetic is linked with geography may be discerned from the following statement of Wallis, "The Teaching of Geography":

In matters arithmetical it has become a truism that the problems which are placed before the pupil should bear some relation to the life which he leads, both in and out of school. Hence, even in matters of multiplication and division, in the use of decimals and the metric system, geography provides a great range of subject matter for arithmetical work of which correct results might easily be recorded instead of being consigned to the oblivion which awaits useless things. Every teacher of arithmetic provides his pupils with a certain amount of drill, and if he were to take his drill from the data which are

used in geography, it would be useful to the geography pupil and would provide him with most of the material which he would need. In the content of later arithmetic there are many matters which call for geographical explanation. It is not suggested that all the material for arithmetical computation should be geographical, but it is suggested that a large amount of the time which is spent in making calculations which are useless when completed, because their results are of little practical importance, should be better occupied in making calculations of which the results have an intrinsic value.

Mathematical problems in geography include a variety of topics. Movements of the earth, resulting in day and night, and seasons; measurements of time and space; latitude, longitude, time belts, compass study and use, circles and zones should claim considerable attention because these conditions have helped or hindered the progress of civilization. In connection with the above topics, the following suggestive questions may prove helpful to those who are seeking to vitalize arithmetic through geographical study:

Why are the temperate zones 43 degrees in width?

Why are the days and nights of equal length about March 21st and September 22nd?

Why does the North Pole have its day during the time that we are having summer?

Why does it have its nights during our winter?

Why is it that no place except the poles can have six months of continuous day or night?

Why are there 365 days in a year?

Why are there twelve months in a year?

Why are there 28, 30, and 31 days in a month?

Why are the summer days shorter in Mexico than in Alaska?

Why must we turn our watches back when we travel from New York to Chicago?

Can you make a graph of this or that phenomenon? How?

REFERENCES

The Readers' Guide to Periodical Literature, a monthly publication, alphabetically arranged, which affords an invaluable guide to teachers, *The Cumulative Book Index*, a valuable catalogue of books arranged by author, title, subject with particulars of binding, price, publisher, etc. (H. W. Wilson Co., New York City); Longman's "Gazetteer" (Longmans, Green and Co., New York City), Lippincott's "Gazetteer" (J. P. Lippincott Co., Philadelphia), authoritative spelling and pronouncing gazetteers, containing also brief descriptions of all places of importance in the world; *The National Geographic Magazine.* Schools having complete copies of this magazine for a number of years back are fortunate indeed. In Appendix B are described the present opportunities of a pictorial character offered schools by the National Geographic Society, Washington, D. C.; *The Geographical Review* (The American Geographical Society, New York City.), *The Journal of Geography* (A. J. Nystrom & Co., Chicago), magazines for teachers.

There are a number of series of books for young people containing good material, which may be listed here advantageously:

"Geographical Readers," 6 vols., F. G. Carpenter (A. B. C.); "Home and World Series," 6 vols., Chamberlain and Chamberlain (Mac.); "Around the World Series," 5 vols., Carroll and Carroll (Silver); "Youth's Companion Series," 5 vols. (Ginn.); "People and Places, Here and There," 5 vols., Pratt (Ed. Pub.); "Little People Everywhere Series," 13 vols. (Little); "Readers on Commerce and Industry," 3 vols., F. G. Carpenter (A. B. C.).

See also: "Three Gringoes in Venezuela and Central America,"

Richard Harding Davis (Harpers); "Historical Readers," Otis; "Marta in California," "Seth of Colorado," "Antione of Oregon" (A. B. C.); and Appendix B.

Especially valuable for teachers' use are: "The International Geography," H. R. Mill (Appleton); "Physiography," D. R. Salisbury (Holt); "Influences of Geographic Environment," E. C. Semple (Holt); "Industry and Trade," Bishop and Keller (Ginn); "Industrial and Commercial Geography," R. J. Smith (Holt); "Economic Geography," H. McFarlane (Mac.); "Principles of Human Geography," Huntington and Cushing (Wiley); "Mathematical Geography," Johnson (A. B. C.); "Creative Chemistry" E. E. Slosson (Cent.); "A Statesman's Yearbook" (an annual), (Mac.); See also standard encyclopædias.

CHAPTER VI

CONCLUSION

It is obvious that the fundamental principles implied in the previous chapters exclude the mere hearing of recitations, for the pedagogical principles advocated in this treatise can not be applied without careful supervision of study and intelligent correlation between subjects. Furthermore, the variety of presentation possible under the plan challenges the alert teacher to vary the process of instruction from time to time.

Throughout the pages of this book the one principle of training pupils in the correct methods of learning must never be lost to view. This is so important that it will not be out of place to emphasize some salient principles of the learning process.

Geography should be taught under conditions in which pupils can do their best work.—When pupils are comfortably seated in a well-lighted, properly ventilated, and heated room, and under proper discipline, a large part of the battle is already won. In the geography classroom we are now aware that other conditions than curriculum and methods of instruction are essential to successful teaching. The ma-

terials required for the work—books of reference properly classified, visual aids ready for distribution and presentation, notebooks and outline maps in place, wall maps pulled down for the view of all, blackboards prepared, etc.—these should be well arranged and immediately available for use when needed.

Pupils should have incentives for going to work.—When the pupils feel that the teacher "means business," the next thing they ask is, "What is it all for?" If confident of that skilful direction which will effect for them economy of time and energy, so that they can accomplish more than if each went at the work alone, the pupils will have the first motive for doing their work faithfully and well.

The second incentive is the nature of the problem to be solved. If this has been selected with the proper care and study by the teacher (See pp. 47-51), and the pupils receive it as their own, they then have further cause for serious work.

The third motive for study consists in setting before the pupils a certain desired standard of achievement during the prescribed time for work. If the grade's work for the day consists of gleaning five points toward the solution of the problem, then the attainment of these five points in the given time is the standard of achievement sought. If the grade's work consists of ten problems in the semester's work, then those who solve these most rapidly should be given the opportunity to go ahead. Herein lies the value of group instruction, for a premium is placed

upon superior intellect and skill; but, at the same time, all other pupils have their chance.

The fourth motive for study is to make provision for variety of procedure. "The same old thing" each day becomes tiresome even if the best method is being applied. Conducting the same sort of attack each day will not win the battle for the general; applying the same type of attack on geography each day will not win the battle for the teacher.

Pupils should be taught how to use reference and supplementary material in the most economical and effective manner.—The effective use of books of reference for the purpose at hand is an important part of the training involved in the study of the subject of geography. Pupils should know both how to obtain information from books and how to gain facility in the use of reference books, particularly through the use of the index and the dictionary.

Sustained effort should be maintained while studying geography.—If pupils have the motive for wishing to do good work, their activities should continue efficient throughout the geography period. High-grade effort involves beginning promptly and finishing with a spurt. When pupils desire to make good records, they even put forth additional effort at the end of the task.

Teachers should make sure that pupils know with what the business of the hour is concerned.—In taking up a new problem or in the process of solving an old one, an attentive attitude toward the business at hand reinforced by a definite assignment, is de-

sirable. If the problem is "working" properly, the learners will not do "blind alley" work; the main object of the study will be definitely before them.

Assistance should be rendered when and where it is needed. In developing an outline of data related to a problem, care should be taken that the system does not become so elaborate as to spoil the purpose. It is necessary for pupils to secure information and arrange this in effective order; but in general, detailed written analysis is not necessary. Sometimes the best kind of work is done when pupils jot down this or that, make marginal notes, or underscore main topics in the text. Helpful only where help is needed; guidance only where pupils are hopelessly faltering; surveillance for purposes of rendering aid when this is necessary—these constitute the principles of effective assistance. While it is necessary, yet it is extremely difficult for school pupils to gain facility in selecting the essential facts and principles contained in the books they read or the material they manipulate. Even as they progress in the course, acquiring greater power in this respect, there is never a time when pupils do not need wise and careful guidance.

It is a necessary part of the work that pupils sometimes memorize verbatim; but it is also essential that pupils should become accustomed to memorizing ideas rather than mere words. The problem method seeks successful orientation from the question-and-answer method. Teachers who so utilize their power as to lead pupils to see important facts con-

noted by words or objects, that these readily give up their meanings, are possessed with consummate skill. In this connection, rote memory plays a very small part. There are times, however, when not only meanings are important, but also the words and names in which these meanings are incorporated are of supreme importance. When memory is required to seize upon these, there should be neither hesitancy nor lack of appreciation of such necessity by the pupils.

Each pupil should be conscious of the fact that the teacher is willing to devote to him a certain amount of individual attention. The coöperative class or socialized recitation is one in which each and every pupil is accomplishing those results which he can best do for the good of the class as a whole. All pupils can not be treated alike, for they differ among themselves in aptitudes and capacities.

After the completion of a period of relatively detailed study in the solution of a problem, there follows the necessity of both an arrangement of the ideas and facts and a review of the details. The problem method possesses a very significant value in that, while studying in parts, the relationship of each part to the purpose or problem should never be obscured. During the whole investigation—a synthetic process—each portion of matter studied should be tested as to its relationship to the problem at hand; and then this or that portion should either be selected and used or be rejected.

Once solved, however, and the whole structure

of the problem completed, it becomes necessary to concentrate attention on each individual's difficulties. After these have been cleared up, the entire organization is to be reviewed, and the various elements are to be linked together to afford a comprehensive study by the class of the entire situation.

EXERCISES

In the questions and statements given below determine which are problems and which are not. In the consideration of each of these, bring to bear the tests for a problem (pp. 51–53).

1.

Why are so many meat-packing centers in or near the Middle West?

Account for the recent growth of cotton manufacture in the South.

Why do the states of Ohio, Indiana, and Illinois manufacture farm implements?

Why did New England develop into a trading and manufacturing region?

Why is the "one-crop system" a disadvantage to the South?

Prove that the Appalachian Mountains were a great barrier and still a great help in our national development.

Why have the Great Lakes been the most important factor in the internal development of the United States?

Explain the lack of large cities in Mexico.

Why did the United States develop from the east rather than from the west?

Why are most of the seaports of North and South America on the Atlantic Coast?

Why is the Chesapeake Bay an important part of the Atlantic Coast? How have conditions been improved in this section? Why was the first permanent English settlement at Jamestown?

2.

What did Matthew F. Maury contribute to geographical knowledge?

Why are Seattle and Tacoma lumber ports? Why are these ports outstripping San Francisco in Asiatic trade? How has the Seaman's Law affected the Pacific trade?

New Orleans handles more foreign trade than any American city except New York. Why is this so?

Why are the kelp beds and sage brush now important?

Why is dry-land farming necessary in the High Plains section?

Why is Los Angeles not only a health resort but also the great fruit port of the Pacific?

Is the expenditure for irrigation in the West a wise policy? Why does Europe not have this problem?

Why is forest conservation a national necessity?

Why could Alaska be called the "Empire of the North"?

The Panama Canal has cost the United States about $500,000,000. Is it a paying investment?

3.

Is the slogan, "See America first" worthy advice?

Why is Canada willing to furnish supplies to England?

If you went to New York City what would you want to see?

Compare Florida with California in as many ways as possible.

Why do more people in New England work in factories than on farms?

What caused the people in New England to settle in small towns while in Virginia they scattered over large plantations?

Why is California called "the fairyland of the United States"?

Why are most of the industries of Mexico owned and operated by foreigners?

Why are none of the Central American countries world powers?

Why do we import leaf tobacco rather than cigars from Cuba?

What are the cities which have been developed by the production of wheat?

4.

Why can not the same things grow in the New England States that grow in the Southern States? What effect does this have upon the industries of these sections?

Show how important the Great Lakes are to the commerce of the United States.

What industries could one visit in the city of Philadelphia?

If you were to start in the shoe business, where would you go to buy your stock of goods?

Why do so many people visit California?

Can the United States supply its own needs in food, clothing, and shelter?

How has the invention and the use of the cotton gin influenced the South?

How have our coal fields aided in developing our country?

Why do the Central States produce great quantities of wheat?

Why do so many people live in the North Atlantic States?

5.

Why should an immigrant from———choose a home in the Middle Atlantic section? In the Southern States? In the Middle West?

What reasons prevent the United States from becoming the greatest commercial nation in the world?

Why do more people live on the eastern than on the western coast of the United States?

Why is it possible for the United States to export wheat?

Why does Minneapolis manufacture large quantities of flour?

If you wished to purchase a cattle ranch, what part of our country would you visit before buying?

What aids do the farmers of the western plains receive to produce their large crops of wheat?

How do you account for the growth of cities on the Puget Sound?

Why was it profitable to build a railroad through the swamps of Florida?

How has New England maintained her manufacturing industries in spite of the fact that she lacks coal?

6.

In what ways is Argentina a rival of the United States?

Why do we import such large quantities of rubber from the Amazon region?

What are the most important differences between Argentina and Chile?

How do you account for the growth of Argentina?

What country in South America has the greatest advantages for manufacturing purposes? Why?

What events in the last three years have brought us into closer relation with South American countries?

Why are we particularly interested in South America at this time?

Is Argentina a desirable place for immigrants?

What parts of South America are like our own country?

Explain the dependence of the world upon Chile at the beginning of the World War.

What are the advantages of the position of Buenos Aires?

7.

Why are more than half the people of mountainous Italy farmers?

Why was Helgoland the most important possession of Germany?

What makes Germany the "armed camp in Europe," and the commercial rival of Great Britain?

Explain Germany's "urge to the east"?

Why has Belgium been called "the workshop of Europe"?

Why was Russia able to establish Kola as an Arctic port?

What makes Holland "the dairy farm of Great Britain"?

Have the plains of Russia been an advantage or a disadvantage to her development?

Why is Switzerland "the playground of all nations, but the workshop of the Swiss"?

Why were the Norsemen a seafaring people? Are Norwegians considered such now?

8.

How have the mountains of Norway determined the industries of the country?

Why is Holland a "land of dikes and dairies"?

What geographic conditions prevent Spain from being a leading nation of Europe?

Why has Venice been "Queen of the Adriatic"?

Why does Italy wish the Adriatic as an Italian lake?

Why has England developed her navy rather than her army?

Give six advantages of the location of the city of London.

Why was England anxious for the Suez Canal? Has it paid her?

What effect would a failure of our cotton crop have upon the industries of England?

What possibilities has Russia for becoming a great nation?

New York and Oporto, Portugal, are in about the same latitude. Explain the difference in their products.

How was Germany able to hold out for four years against the Allies?

9.

Compare the modes of living in various districts of Asia: tents in deserts, bamboo houses, Japan, house-boats, China.

Compare modes of travel: bullock carts in Tibet, wheelbarrows in China, jinrikishas in Japan, elephants in India, camels in Persia, railroads in progressive nations.

Why are we interested in Japan?

Why was the "cradle of civilization" in southwestern Asia?

Japan is much inferior to China in size, in population, in natural resources, but has made more progress than China. Why?

What products of Asia are in the greatest demand in our country?

What products "made in the U. S. A." are in greatest demand in Asia?

Why is Lisbon cooler in summer than Pekin?

Why is Arabia of less importance than India?

10.

In what way is South Africa like portions of Australia?

Of what value is Africa to European nations? Consider each country in Europe which owns portions of Africa.

Why is Egypt so fertile, even though the Nile has no tributary for 1,000 miles from its mouth?

Why are desert lands of value? Can the arid regions of the United States be made productive?

Of what advantage is the Suez Canal to the commercial world?

How do the rivers of Africa compare with the Mississippi and the Amazon as commercial routes?

Why are there so many of the black race of Africa in the United States?

Where are most of the settlements in Africa being made now?

What part of Africa resembles the selvas of the Amazon River?

What European nation first settled in South Africa?

11.

How have the climate and surface affected the distribution of population in Australia?

Does the Dividing Range of Australia play a part similar to the Sierra Nevada? the southern Andes?

Nine-tenths of the people of Australia live on the coast. Why?

Why is Australia called "the Lonely Land"? Why does England care for this isolated colony?

Why are most of the products of Australia sent to England?

Why has Australia an ancient and distinct type of plants and animals?

Why does the finest wool in the world come from Australia?

By what route is a telegram from Melbourne dispatched to London?

12.

What advantages does the temperate zone offer to those who live in it?

How do the coral reefs affect the trade routes?

Why are the great steel manufacturing cities on or near the Great Lakes?

Why are "lungs" (parks) necessary to a city?

What industries are dependent upon animals for their maintenance? Where are most of these industries located in the United States?

Would a tide run farther up the Mississippi River or up the St. Lawrence?

What things made of iron were used in the building of your home?

Why do so many Italians, particularly from southern Italy, come to the United States?

How will the opening of the proposed railroad between Ekaterina Harbor and the interior benefit Russia?

Why is New York the great gateway through which so many foreigners pass into America?

13.

Why has Moscow become important as a trade and textile center?

Wherein lay the weakness of the former Russian Empire?

Why did the Germans want to control Ukraine during the war?

What resemblance is there between Ukraine and our own prairies?

Why should we look for few cities in Roumania?

What conditions have made Budapest a great city?

What products should we look for in a temperate climate in Europe?

Judging from the position of Finland, Esthonia, and Lithuania, what should the climate be?

In what ways was ancient Poland more progressive than its neighbors?

Why do so few Belgians emigrate?

Why did Holland and Denmark suffer during the war?

If the importation of food supplies were stopped why should Norway suffer more than Sweden?

What advantages does the city of Constantinople possess as a possible capital for the League of Nations?

14.

What conditions have made Italy a great rice-growing country?

Why is it that Italy, though possessing few great manufacturing industries, has a very dense population?

Why is the position of Italy superior to that of any other country in Europe?

How is the situation of the Iberian Peninsula favorable to trade? Why is it that, although almost touching Africa, it is little used as a highway between the two continents?

How does the interior of Spain interfere with its growth?

How could Ireland afford, with such few manufacturing industries, to decrease agriculture?

Why should people make their homes in Iceland?

What advantages do the Caucasus Mountains offer to the people who live at the base of these mountains?

Why do many of the Mediterranean cities lack the commercial importance they once possessed?

From each of the following "lessons" in geography textbooks construct a problem with its supporting minor problems and development questions:

15.

"The Islands of the Pacific Ocean"

"Tasmania and New Zealand"

"The Japanese Empire"

"The Chinese Empire"

"The Malay Archipelago"

"Roumania and the Balkan Peninsula"

"Arabia, Persia, and Afghanistan"

"The Atmosphere"

"Rivers and River Valleys"

"Ocean Movements and Their Effects, also Distribution of Temperature"

16.

"Agriculture and Manufactures of the New England States"

"Agriculture in the South Central States"

"Irrigation and Crops in the Plateau States"

"Industries of the Pacific States"

"Stock Raising and Meat Packing in the North Central States"

"The People of the World"

"Countries of the Plata Basin of South America"

"Countries of the Andes"

"Outlying Possessions of the United States"

"Uses of the Ocean"

From the following topics on Europe, construct problems with the supporting minor problems and development questions. In cases where no problems can be constructed, state why:

17.

"Life in the Russian Forest"

"The Tartars of Southeast Russia"

"The Ancient City of Kiev"

"The Story of the Cossacks"

"The Character of the Little Russians"

"The Relation of the Ruthenians to the Ukrainians"

"Transylvania—One of the Provinces of New Roumania"

"Roumania as a Roman Colony"

"The Life of the Hungarian Farmer"

"The Plain of Hungary"

18.

"Bohemia as it was 500 Years Ago"

"The Ways in Which Czecho-Slovakia is More Favored Than Poland"

"The Advantages and Disadvantages of Dairying in Finland"

"The Story of the Letts and the Lithuanians"

"Poland, a 'Buffer' State"

"The Kiel Canal"

"A Trip up the Rhine"

"The Chief Foods of a German Family"

"The Character of the Prussians"

"A Trip on the Canal Boat across Holland"

19.

"Iceland in the Summer Time"

"The Advantages of Belgium as a Manufacturing Country"

"How the Products of Great Britain Are Affected by its Climate and Surface"

"How London Is Supplied with Food"

"Reasons Why Germany Is Progressive"

"The Natural Feature of Italy which Promotes the Use of Electricity"

"The Rivers which Flow into Switzerland"

"Petrograd"

"The Crimean Peninsula"

"Salonica"

TEACHING GEOGRAPHY
BY PROBLEMS
PART TWO

CHAPTER I

ILLUSTRATIVE PROBLEMS

Thirteen sections of geographical material for the grades with illustrative problems and some reference material are presented in this chapter. These sections seek to show the following:

1. Geography is a continuous school subject, with the subject matter designed to enrich the consciousness by giving a vision of geographical environment as wide as the world itself. As a general rule, teachers have textbooks with definitely assigned directions for teaching by sections and by pages, instructions which are usually contained in a course of study. Sometimes a teacher forgets to take stock to find out what is the relative importance of the material contained in the course and for what purpose it is intended. Hence, these sections do not attempt to present the subject matter of a school geography text, for this would be superfluous; but they do present information which can be used with any textbook in geography.

2. By the time the elementary school is completed there should be presented a carefully selected number of items, grouped about a few major topics and possessing a psychological and definite plan by

which pupils may develop the topics to a definite conclusion. To this end the problem type of presentation is adopted, and the problems given must necessarily be stated as if they were those of the pupils. As a matter of fact, problems are often raised by pupils themselves. This habit can be developed by setting forth the situation out of which problems should arise, by getting pupils to ask questions. Then the problems can be stated. The problems given in these sections should be helpful, in that the solution of them should be the means to the attainment of the knowledge and skill fundamental to the pupils' assignments. At least, it may be helpful to teachers to know where they can secure suggestive problems bearing upon the part or parts of geography which they are teaching.

3. Making and developing problems is attended with some difficulty; but once this difficulty is surmounted, then teaching geography is far more attractive, both to teachers and pupils. The problem about Brazil, Section 9, pp. 200–210, is a complete problem, containing directions as to method and procedure.

4. The modern viewpoint of teaching principles involved in the study of each continent as a whole should be in the possession of every teacher of the subject. Then problems can be evolved. To this end, a brief sketch of each continent as a whole is presented. It must be left to teachers to construct their own introductory statements to pupils to precede the construction and the development of

problems for those possible situations out of which problems naturally arise. Hence, in the latter instances, only illustrative problems can be given in the following pages.

5. While the regional treatment of geography is preferable, one can construct good problems by using the political classification. (See pp. 139–151).

6. While minimum essentials of place geography are necessary to the successful teaching of the subject, those essentials which are given in these sections are simply suggestive of some of the facts which should receive particular emphasis, thus stressing the importance of such essentials.

7. The type and topical methods can be used in the teaching of geography. The topical method, in particular, can be employed as a means of organization of data for the solution of problems.

8. Reference material is necessary for successful teaching. In all instances in which problems are used, some reference material is given; in some instances, considerable reference material is employed. As a rule, however, the latter is not attempted, because large libraries are not available to all teachers, and hence little practical value would result. As a general rule, it may be said that the references which are given are simply suggestive. Should library facilities be available to teachers, such material as is needed can be organized and applied to the purpose at hand in accordance with the best practice of teaching the subject. Otherwise, teachers should see to it that at least a minimum amount of reference

material is provided for teaching that part of the subject which is assigned to them.

9. It is necessary for a teacher to plan her work by surveying the field she is to teach. She must select her reference material, plan her projects, consider what problems she would like to have raised by the pupils, and make requisition for the material which she desires in her laboratory. Geography, like science, needs equipment.

1. Observational geography, map study, and excursions.—The general content of this section consists of what is usually called "observational geography." Subjects receiving consideration are, weather observations, how the people of the pupil's locality work and live, map study and the use of maps. By means of this kind of instruction, the background for a later and fluent understanding of geographical principles may be established.

Weather observations include not only a daily record of weather conditions but also monthly and seasonal summaries. The pupils do the work under direction of the teacher. The temperature is taken at the same hour during the day; the direction of the wind and its influence upon the weather are noted; and the kind of day is made a matter of record.

The sun's apparent daily path across the sky is observed and the following phenomena are noted: where the sun seems to rise and set; at what time it stands highest in the sky; when it is lowest in the

heavens, and the consequent variation in the length of day and night.

One should see to it that children's attention is directed to changes in seasons, to the occupations of people as affected by these seasons, and to the plant and animal life due to these seasonal changes.

The study of how the people of the pupils' locality work and live may best be undertaken by setting up a number of problems. For instance, using the city in which the pupils live as a unit, this main problem could receive attention: Why do the people of my city work? Two statements attach themselves to this problem. These are, (1) people work to provide themselves with the necessities of life—food, clothing, and shelter, and (2) people work to obtain for themselves some of the comforts of life. Two minor problems contribute to the solution of the main problem, Where do people work? and, How do they get to their work?

Another main problem helps in the study: In what kinds of work do people engage? In solving it, six statements could be developed: (1) food is so necessary that people work in places where it is distributed—wholesale markets, retail markets, grocery stores, dairies, restaurants, etc. People also work in places where food is manufactured, in places where food products are raised, and in places where food is transported. Type studies of a market and a milk depot also contribute to the appreciation of the study. (2) Clothing is so necessary that people work in department stores, distributing

centers, and in places where clothing is manufactured. (3) Shelter is also necessary to the people of a city; therefore they build houses, stores, and many other buildings. (4) In order to distribute materials for food, shelter, and clothing, people are engaged in transporting these materials to and from places. This transportation is carried on by land, by water, and through the air. (5) In order for people to transact business with each other, they work in banks and in the postal, telephone, and telegraph services. (6) People must be protected by laws which are made by them for mutual benefit; hence, people work in the service of the city, state, and national governments.

The third main problem is, What do people do besides work? They must have recreation, so they frequent movies, theaters, playgrounds and parks, libraries and other places. Worship is necessary for most people, so churches and cathedrals are erected.

Study of the geographical conditions—climate, surface, natural resources, transportation, and communication—assists in solving the fourth main problem, What enables the people of my locality to maintain the industries they have?

The use of a simple map will aid in the solution of the fifth and last main problem, What should I know about my city? Show and explain the use of a compass; teach the cardinal and semi-cardinal directions; locate the school building on the map and then locate other places with due regard to directions.

When excursions are undertaken, simple, rough maps can be made on which the directions can be indicated. More accurate maps of the schoolroom, school house and even school yard, drawn to scale, will prove helpful.

REFERENCES

"How the World Is Fed," "How the World Is Clothed," "How the World Is Housed," F. G. Carpenter (A. B. C.); See also series of readers in References to Chapter V, p. 97.

Literature from the various municipal departments and local industries; "The Citizen's Book," Stewart and Kidd (Cincinnati Chamber of Commerce); topographical maps of the U. S. Geological Survey, Washington, D. C.; See also Appendix B.

2. Interdependence and the study of child life. In the previous section, projects concerned with weather observations were recommended. This instruction should be extended to include the effects of dew, frost, snow, hail, sleet, rain, and fogs. Particular attention should be directed to the action of rain in making soil.

Whether one had rather live in the country or in the city is a main problem which includes three minor problems: How is the city dependent upon the country? How is the country dependent upon the city? How are both dependent upon the state as a whole? Consideration of these problems forms a study of interdependence. Organize the information about the following topics: food supply, shelter, fuel, clothing, water supply, transportation, and raw materials.

Follow this with a series of development questions:

What would you see to interest you on a trip through such-and-such a valley? Why would you like to take a trip to a near-by town? Describe the life of a farmer. In what respects is the life of a miner different from that of a farmer? What do you know of another city in your state? How did you learn it? What can you find out about your state by visiting the State Fair?

Desk outline maps can be filled in, showing the products of the state. (See Appendix B).

It is essential to use a globe to locate continent and water areas in connection with child life in other lands. The use of pictures is also necessary. Collect, classify, and mount the pictures; then file them. Constant use of the sand table adds greater interest.

Only three studies are given here: the mountain child, the desert child, and the Eskimo child; but these illustrate the possibilities of instruction by anecdote and story, comparisons and contrasts.

Two problems can be employed to cover these studies: How and why do the Swiss children differ from us? and, Contrast the life of the desert child with that of the Eskimo child.

In solving both of these problems, the following brief facts are suggestive of the method of successful procedure. In addition to the use of a globe to locate the homes of the Swiss, the desert, and the Eskimo child, make use of interesting and instructive pictures. If the construction of sand table scenes is possible, use this means of instruction. When reading assignments are made, take care that

each pupil is properly directed to read in order to obtain some particular information—some will find out about the kind of clothing worn, others about the food eaten, others about the houses, some about work and play, and still others about the way in which the people travel. The socialized recitation which is progressing by such a method will be completed when these groups and individuals make their contributions to the class.

REFERENCES

"Around the World with Children," F. G. Carpenter (A. B. C.); "Europe," J. F. Chamberlain (Mac.); "Europe," pp. 249–271, F. G. Carpenter (A. B. C.); "Seven Little Sisters," pp. 22–43, 43–57, Andrews (Ginn); "Big People and Little People of Other Lands," pp. 25–36, 77–82, Shaw (A. B. C.); "With Azir Girgis in Egypt," Perry (Atkinson, Mentzer & Co.); "Hassen in Egypt," MacDonald (Little); *National Geographic Magazine*, September, 1913, January, 1914, December, 1914; see also series of readers in References to Chapter V; see also Appendix B.

3. The world as a whole, the Middle Atlantic States, and the New England States.—The weather observations which, in the previous sections, have been made by means of experiments and projects, have introduced the pupils to the method of attaining knowledge at first hand. Information about child life in other lands has, in the main, been achieved by means of directed reading.

It is now proposed to introduce pupils to an elementary study of the world as a whole, in which activity both projects and problems are necessary.

To the end of inculcating the idea of seasonal

changes, certain experiments should assist. Selecting a post in the school yard, pupils may make records of the length of the shadow at or near noon upon the same day of each week; and particular attention may be directed to those observations made on March 21, September 22, December 21, and June 22. Observe the gradual lengthening of the shadow until December 21; then observe the gradual shortening up to June 22. With the lengthening of the shadow, notice the apparent movement of the sun toward the southern horizon; and with the shortening of the shadow, observe its gradual movement toward the zenith.

Establish the following facts and provide for drill upon them: In winter the days are coldest and shortest. The sun is low and the rays are slanting. The longest shadow occurs on December 21. In summer the days are longest and warmest. The sun is high and the rays are nearly vertical. The shortest shadow occurs on June 22. In spring and autumn the days are mild and almost equal in length to the nights. They are equal on March 21 and September 22.

This idea may be developed further if the pupils take observations of the weather at stated intervals and record these observations in some convenient way. The records should show the date, temperature, in degrees and whether hot, warm, cool, or cold, whether the sky is clear or cloudy, the amount and form of moisture and whether this moisture is in the form of rain, snow, fog, sleet, or hail, the amount

of wind and direction as indicated by the weather vane, the shape of the moon and its apparent location in the sky, the apparent location of the sun in the sky at sunrise, noon, and sunset, time of sunrise and sunset, and the record of the length and direction of the shadow as indicated by the shadow-stick.

The monthly summary of these same things would show general weather conditions, prevailing winds, temperature, phases of the moon, and changes in the length of day. After these projects, pupils should be ready to gain a ready appreciation of newspaper weather reports.

Demonstration experiments on evaporation and condensation can assist. The following directions illustrate how these experiments can be conducted.

Place the same amount of water in two dishes of the same size and shape, the one on the warm side of the room and the other on the coolest side. Watch the change. Water evaporates in the form of vapor. Make any other observations of evaporation.

Contrast by whatever means is simplest, the melting of ice on a cold day with that on a hot day.

Place a small pan of water over strong heat, and observe the cloud form. Hold a cold plate in the vapor, and watch the drops of water form. Heat the plate and watch the water disappear. Observe clouds rising from walks and roofs on a warm day after a shower, or steam from kettles, or moisture on windows, or frost on a cold day.

Place two glasses in a room, one filled with ice water and the other with tepid water. Observe

water collect on the former. On a cold day, watch ice crystals form on a cup of water out-of-doors. What may happen to a glass or pitcher if water is allowed to freeze in it?

Measure rainfall and snowfall after storms by placing a deep, tin pan in an open space during the storms. Measure the depths of rain or snow in the pan.

After such experiments the way is made clear to undertake a formal study of dew, frost, snow, fogs, and clouds and an assignment for recitation may be made.

All of these phenomena have a decided effect upon the earth. Hence, how soils are formed, the kinds and character of each, are essential to the instruction. The use of a manual or of a general science will be of distinct aid in providing the material for this.[1]

Development questions should not be neglected; hence the following are suggested: What seasons do we have in the course of a year? What would be the effect if we had winter all of the time? Where are the countries which do have winter most of the time? What kind of people do we find living in cold regions? How do they live? What kinds of plants have they? From what has been studied, what have the number of hours of sunshine and the degree of the slant of the sun's rays to do with the different portions of the earth?

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[1] "Handbook of Nature Study," Comstock. Comstock Publishing Co., Ithaca, N. Y. "Science of Everyday Life," Van Buskirk and Smith. (H. M.)

Turning now to the textbook, formal study of the following topics might well be pursued: the earth's shape and movements with the relation of the movements of the earth on its axis to our day and night and around the sun to our seasons; land masses, map and globe study of the continents, comparative size, location in zones and life on these continents; map and globe study of the oceans, location in zones, continents that border the oceans, effect of the oceans upon land, comparative size and importance; temperature belts, names of each, climatic features, characteristics of people living in the different belts, and an elementary study of plant and animal life in each zone.

Consideration of say, two questions about the World War should add interest to the discussion: From what countries and by what routes did the Allies get sugar, meats, fats, wheat, wool, cotton, copper, gasoline, and coal? and, From what countries did the Allies get their man power?

With the use of desk outline maps, the pupils are now ready to trace one or more of our important exports—wheat, cotton, or meat—to world markets. Then important reciprocal relationships can be developed by directed reading in answer to such a question as, Upon what countries are we dependent for the things we use at breakfast?[2]

Globe study should find a ready introduction if the pupils' interest in child life, which has previously

[2] "Three Industrial Nations," Chapter I. L. R. Blaich. (A. B. C.)

been developed, is appealed to. Imaginary journeys could well be taken around the continents.

Finally, certain historical stories about discoveries of continents and oceans and the routes followed by the explorers (traced upon the globe or maps) complete the study of the subject, the world as a whole.

In taking up the study of the divisions of the United States, begin with the group in which you are located, and then follow with the groups upon which you are most dependent. The information which is thus obtained should be organized according to some good plan. A topical outline suggests the form; problems suggest the method. If pupils are well taught, there is comparatively little difficulty in getting them to study the remaining groups of states independently by the assignment of problems relating to these groups.

The Middle Atlantic States.—The topical outline should include the following: leading cities, industries, shore line, surface, climate, people, products (raw and manufactured), communication, and transportation.

Minimum essentials of place geography are necessary to geographical study. For example, in the study of the Middle Atlantic States, tell one important fact about Niagara, Hudson, Susquehanna, Potomac, Delaware, Erie Canal, Great Lakes, Buffalo, Albany, Philadelphia, Pittsburg, Atlantic City, Wilmington, Annapolis, Washington, Adirondacks, Catskills, Blue Ridge, and Alleghany. Name and locate the states of this section.

By means of the assignment of a problem, the important facts of the topical outline and the above minimum essentials of place geography of the Middle Atlantic States can be taught. The problem suggested for the study of this group of states is, Why is the Middle Atlantic group of states a most desirable place in which to live?

The information which can be secured by the examination of several minor problems will contribute to the solution of the problem just stated: Are these states advantageously located? What can be found out about the climate? Are the advantages for education good? What are the means and what is the extent of transportation? Are the food products abundant? Are they varied? What are the possibilities of occupation? Of recreation?

The main problem may be developed according to the organization which follows. Whenever statistical information can promote discussion and aid in instruction, it should be employed. When statistics are used, be sure they are up-to-date.

Manufacturing is easily maintained in these states, because certain raw products—lumber, iron, and coal—are abundant. The Delaware, Susquehanna, and Ohio rivers afford water power. Food products —meats, grains, vegetables, and fruit—are plentiful. Labor is relatively easy to obtain.

Both climate and soil admit of many forms of agriculture. These states, situated in the cool, temperate zone, enjoy short winters and a long season for vegetable life to mature. The coastal

plain is adapted to trucking, because the soil is light and sandy; and, besides, the ocean is generous in providing moisture for crops. The central plain is a grain region, and in the mountain section cattle and fruits are raised.

The situation of these states favors both domestic and foreign commerce. Located between the Southern and New England States, it is the distributing region between the North and the South. Furthermore, these states border on the Great Lakes, from which bodies of water the great western trade is shipped via the Erie Canal. Foreign commerce is facilitated by good harbors, which are connected with the inland by navigable rivers and by railroads. In addition, these harbors are within easy reach of the markets of Europe.

Minimum essentials of place geography should be summarized according to requirements and recorded in note books for future reference when the pupils will need to use them in the solution of other problems.

REFERENCES

"The Geography of New York," Smith & Perry, "Three Industrial Nations," L. R. Blaich, "Niagara Falls and Their History," Gilbert, "North America," F. G. Carpenter (A. B. C.); "New York," Whitbeck, "Maryland," Twitchell, "Pennsylvania," Rupert, "North America," pp. 28–60, Chamberlain (Mac.); *National Geographic Magazine*, June, 1913, July, 1918; see also Appendix B.

The New England States.—The problem suggested for the study of this group of states is, Why can New England be called a great workshop?

The people of New England, energetic because of a stimulating climate, are engaged in many industries. Manufacturing is easily carried on, not only because of the magnificent water power which is furnished by the falls and rapids of the rivers, but also because of the acquired skill of the people. Attracted by opportunity, immigrants have come in hundreds of thousands to its shores.

Early in the history of this section, the people found it profitable to import raw material from other sections of the United States. Cotton in immense quantities finds its way to the New England mills and clothing, household, and cotton goods, thread and string are manufactured; wool is converted into clothing, blankets, and carpets; hides are made into boots, shoes, harness, pocket books, and many other articles.

The forests afford work for many men, for the trees must be cut, hauled to the mills, and converted into lumber, boxes, furniture, barrels, and paper. The sugar maples of Vermont are famous because of their delicious product.

Fishing has remained an important industry in New England. Mackerel, halibut, cod, and lobsters are caught in large quantities. Fish are cleaned and salted by being soaked in brine and dried for shipment.

Granite, marble, and slate are quarried in great quantities. Paving stones, curb stones, blocks for buildings and monuments are made from granite, which is blasted by dynamite. Marble, being

relatively soft, is sawed and used for buildings, statues, and monuments. Slate is broken into thin slabs and is used for roofing and school blackboards.

It follows that, with so many manufactured products, New England's commerce, both foreign and domestic, is extensive. Raw products are brought into New England and manufactured articles sent away by rail and by water. Ports of great importance have been provided by nature. Boston is a great shipping point, and this port and others are connected with the interior by railways. There are many industrial and commercial cities in New England. From the list of cities of the United States in the geography text, it would be interesting to count the number which are located in this section of the United States.

Many minor problems can easily be added to these two: Why is Boston called the "Hub City"? and, How does New England life differ from that in Maryland?

REFERENCES

"The Story of Great Inventions," E. E. Burns (Harpers); "Vermont for Young Vermonters," Kimball (Appleton); "Building Stones" in "The United States," Winslow (Heath); "North America," pp. 76–99, F. G. Carpenter, "Three Industrial Nations," pp. 202–207, 189, 244, 290–291, L. R. Blaich (A. B. C.); "North America," Chamberlain (Mac.); "Captains Courageous," Rudyard Kipling (D. P.); "Maine Woods," Thoreau (H. M.); see also Appendix B.

Suggestions for map study.—Use to the best advantage desk outline maps for recording leading cities, industries, agricultural, mineral, and animal

products of both the Middle Atlantic and New England States. File these maps with the record of the development of the problems.

Also, use outline maps for recording the minimum essentials of place geography: The Connecticut, Merrimac, Champlain, Boston, Providence, Fall River, Lynn, Portland, etc.

Suggestions for projects.—(1) Prepare advertisements illustrating the advantages of any state or either section of states. (2) From magazine advertisements, select articles which are advertised as being made in either section mentioned above. (3) Make a New England States chart or a Middle Atlantic States chart (on 22″ x 28″ cardboard) by displaying advertisements, postal cards, etc. (4) Make the best use of desk outline maps. (5) Employ a cork bulletin board for posting current topics about any state or either group of states.

4. The Southern States, the Central States, the Western States, the Pacific States, the United States as a whole.—*The Southern States.*—Why is the "Land of Cotton" in the Southern States? This problem offers an opportunity to a class for a comprehensive developmental study of these states. Two minor problems, to which others may be added, are, Why is New Orleans called the "Queen of the South"? and, Why were the Southern States important in the World War?

The United States stands first among the nations in the production, manufacture, and exportation of

cotton. This commodity is raised in large quantities in the Southern States because there fertile soil, plentiful rainfall, and a long, hot season are furnished the cotton plant. The soil is perfectly suited to the growth of cotton because of the fertile coastal plain which extends to the Ohio River and because of the rich lands which are fed by the Mississippi River. Because the Southern States are situated in the warm half of the temperate zone, the cotton plant has the benefit of the sunshine of long, hot summers. Across the Gulf of Mexico come winds laden with rainfall, and this constitutes the final requisite for cotton culture.

Since cotton is very extensively used in the world, pupils may, with advantage, be directed to find out what needs cotton fills and to what uses it is put; in what other places in the world it is grown and why it grows in these places; where it is manufactured in largest quantities and why; and what part the Southern States play in the manufacture and exportation of cotton.

In the South many cotton mills have been erected. In North Carolina more cotton goods are manufactured than in any state, with the exception of Massachusetts. While New England has more mills than the South, nevertheless, because of the plentifulness of the raw product, because of good water power,[3] coal fields, and mountain-white labor, forty per cent. of the spindles in the country are located

[3] One of the largest hydroelectric plants in the world is situated at Charlotte, N. C.

in the mills of the Piedmont section of the Carolinas, Tennessee, Georgia, and Alabama. While the southern mills have secured local supplies of labor, northern mills have had to employ many immigrants. Under present conditions, it appears that both southern and northern mills may soon be forced to seek some new source of labor.

The total number of spindles in the United States at present is about thirty-five million. This is about twenty-three per cent. of the total number in the world.

The demand for cotton goods has been increasingly steady all over the world. In some countries like India and China, primitive industrial methods are popular. For example, more than one half of the cotton used in China, it is estimated, is woven on hand-looms in peasants' homes. On one of these hand-looms only about four yards of cloth are woven by a weaver in a day. On one power-loom, such as is used in the United States, the daily output is about fifty yards; and each weaver in an American mill tends from six to thirty of these power-looms. Both the great demand for cotton goods and the use of labor-saving machinery have made it possible for the southern mills to manufacture not only yarns and the cheapest grades of plaids and sheetings but also the best of cotton goods.

In addition to manufactured cotton products, much raw cotton is exported from the South; and hence, there are many cotton markets there: Gal-

veston, Savannah, New Orleans, Mobile, Wilmington, Memphis, Charleston, and Vicksburg.

REFERENCES

"The Geography of Texas," Simonds (Ginn); "The Story of Cotton," Brooks, "The Four Wonders," Shillig (Rand); "Three Industrial Nations," pp. 189, 191–196, 198, 203, 205, 216, 237, 248, 290, L. R. Blaich, "Philip of Texas," Otis, "How the World Is Clothed," F. G. Carpenter (A. B. C.); "Tennessee," Barrett, "North Carolina," Faust and Allen, "From the Cotton Field to the Mill," Thompson, "How We Are Clothed," Chamberlain (Mac.); "Dixie," Ralph (Harpers); "Southern Life in Southern Literature," Fulton (Ginn); "Great Cities," Kramer and Southworth (Iroquois Publishing Co.); "A Cotton Factory and the Workers," Gertrude Van Hoesen, *Lessons in Community and National Life*, pp. 25–32, U. S. Bureau of Education, Washington, D. C.; *National Geographic Magazine*, March, 1913, February, 1914, January, 1915; see also Appendix B.

Projects.—On a desk outline map of the United States, color the states in the southern section and number them 1, 2, 3, etc., in the order of their importance as cotton-producing states. Indicate the names of the states.

Using a different color of crayon, on another map indicate those states which produce considerable quantities of corn; of wheat; of cattle; etc.

On a bulletin board post clippings of current interest in which these states are playing a part, and particularly, news of the cotton situation.

The Central States.—In the treatment of the eastern and western divisions of the Central States, many problems can be selected. The main problem offered for treatment is, What effect have railroads upon traffic on the Mississippi River?

The Mississippi River is a great, natural highway of trade, because it not only receives mighty tributaries from regions thousands of miles apart—Missouri, Ohio, Arkansas, Wisconsin and the region of the Red River—but of itself it affords an outlet to many inland cities. While this is as true to-day as it was many years ago, the direction in which the Mississippi River flows is not now as advantageous to either these regions or to these cities as previously. Before the Civil War, the Mississippi River was one of the great commercial arteries of the United States; but, in 1825 the Erie Canal was built and products began to be transported in the direction in which this led. In 1850 railroads appeared, and the number grew in enormous proportions.

These new, artificial competitors have steadily encroached upon the natural supremacy of the "Father of Waters." The number of boats on the Mississippi is decreasing. In 1916 there were less than two million tons of freight transported between Memphis and Vicksburg, and most of this was sand, stone, and gravel. There were only one million tons transported between St. Louis and Cairo. Traffic in coal has declined to one half of what it was fifteen years ago, lumber to about one eighth and grain to about one fifteenth.

The flood plains of the Mississippi are extremely productive. Along its way from its source to the Gulf of Mexico a deep, rich soil suitable to many crops—cotton, sugar-cane, and grains—is afforded. Silt, brought down by the many rivers of

the system, forms the largest contribution to this fertility.

The Central States, with their broad plains and remarkable fertility, do not look to the Mississippi to receive their products for transportation, but rather to the railroads and the Great Lakes.

But the Mississippi is still serviceable and its usefulness is now being greatly improved.[4] Levees have been erected to keep the rising water from flooding the fields and destroying the crops and railroads; jetties have been built along the banks of the river; and bills, seeking national aid for improvement of this waterway, have been introduced in Congress.

REFERENCES

"Great Cities of the United States," pp. 41–66, Kramer and Southworth (Iroquois Publishing Co.); "The Geography of Chicago," Salisbury and Alden (University of Chicago Press); "North America," pp. 82–83, 99–114, "How We Are Fed," "How We Are Clothed," J. F. Chamberlain, "Iowa," Bender, "Missouri," Barnard. "Illinois," Darling (Mac.); "How the World Is Clothed," "How the World Is Fed," "North America," pp. 150–159, 172–195, 225–234, F. G. Carpenter, "Three Industrial Nations," pp. 20, 244, 302, 310, L. R. Blaich, "Benjamin of Ohio," "Hannah of Kentucky," Otis (A. B. C.); *National Geographic Magazine*, February, 1914, January, 1916; *Journal of Geography*, September, 1918.

Projects.—On an outline map of the United States color the states which are great grain producing states; indicate the cities which are important

[4] Hydro-electric plants are built along the Mississippi and its tributaries. The possibilities of using the waters of our rivers and lakes in developing water-power (often spoken of as "white coal") are very great.

distributing points for cereals and cereal products. Number the states 1, 2, 3, etc., in the order of their importance as grain producing states; use another set of numbers to indicate their relative importance in the production of wheat; another set to show the production of corn; etc.

Should the teacher desire to correlate this study with that of history, this could be done by using the problem: Suppose George Rogers Clark had not conquered the Northwest Territory? (See p. 89).

The Western States.—The great movement to carry on the work of irrigation was given a successful start during the administration of Theodore Roosevelt. In his message to Congress, December 3, 1901, he said, in part, "The reclamation and settlement of arid lands will enrich every portion of our country, just as the settlement of the Ohio and Mississippi Valleys brought prosperity to the Atlantic States."

Nature has been generous to America; but, in the vast West there are many acres of arid land. Almost one fifth of the United States is unfit for cultivation, and most of this land is in the western section of our country. One half of the 32,000,000 acres of desert land has now been reclaimed by federal and private irrigation enterprises.

Thus it is that one is brought to consider the problem, How and to what extent has man overcome nature on the Western Plains?

If, in attempting to solve this problem, the pupils are guided in their activities, the brief statements of

method which follow are indicative of how the problem may be solved.

Interesting questions present themselves. How did Montana help to win the World War? Contrast a farm in Arizona with one in Minnesota. How did our forefathers reach Salt Lake City? Why has Denver grown so rapidly? Why do so many people visit the Western States?

What are the natural geographic conditions of this section? Most of the winds which reach these states have been robbed of their moisture by the Rocky Mountains. Snow and rain on the mountains feed the Missouri, the North and South Platte, the Arkansas, and the Yellowstone rivers, which flow across these states.

Some of the difficulties which nature has imposed have been overcome by means of irrigation. Canals and ditches now lead off water from the rivers to the once arid land. Dams and reservoirs have been built by the government.

Magnificent results have accrued from irrigation. The rapid settlement of the West was given impetus by it. Now grains, vegetables, fruits, grass, cattle, and sheep—rich products of this district—are at the disposal of the inhabitants. Every portion of the United States, as Theodore Roosevelt predicted, has been enriched.

The people in other parts of the United States are not fully informed concerning the results which have been obtained during the last twenty years by means of federal, state, and private irrigation enter-

prises. There are now under irrigation a little more than fifteen million acres, which is about one half of the total land available for opening up in this way. The United States Reclamation Service is authority for the statement that the value of land irrigated by the government alone, has increased from ten dollars to two hundred dollars an acre. The production of the irrigation projects, constructed and owned by the government, in 1919 amounted to more than eighty million dollars or about two thirds of the entire capital invested in these projects by the government.

These irrigated areas in the West are producing crops of even greater abundance than those in humid regions. The reason for this is that the water which is applied to the land is given to it artificially, and thus the climatic conditions are assisted by this control of rainfall, so to speak.

The products of these irrigated regions are advertised to the world. If, as a class project, the number of advertisements in a few magazines of food products of this section are compared with those of any other section, the result will be interesting.

After recounting these brief statements and amplifying and complementing them with reading and up-to-date statistics, the minimum essentials of place geography should not be neglected.

REFERENCES

"Principles of Human Geography," pp. 319–329, Huntington and Cushing (Wiley); "Economic Geography," C. R. Dryer, "Three Industrial Nations," L. R. Blaich (A. B. C.); "North

America," pp. 174–194, 288–295, Chamberlain (Mac.); "Irrigation and Dry Farming" in "The Story of Agriculture in the United States," Sanford (Heath); *National Geographic Magazine*, February, 1914, January, 1915; *Scientific American*, March 4, 1916; "Information for Beginners in Irrigation," *Farmers' Bulletins*, No. 864, "Primer of Forestry," Part I, *Farmers' Bulletins*, No. 173, see also Appendix B.

The Pacific States.—The Westerners of the Pacific States claim that theirs is a "Land of Opportunity." Can this claim be justified?

In order to help the pupils, the following brief suggestions of method and statements of fact will prove helpful.

Guide the activities of the children by assigning a number of minor problems. Why is California the "Fairyland of America"? Contrast the methods of farming in southern California with those in the northern part. Contrast a wheat harvest in Washington with one in Minnesota. Why is San Francisco the "Gateway to the West"? What cities are rivals of San Francisco? What has Luther Burbank done to deserve the name, "Wizard of the Plant World"? In how many ways does California stand first in the amount of her products? What great natural resources are the mainstay of this region? Is irrigation necessary? Is it extensive? What geographical advantages does this region possess? In this latter problem, consider the climate (temperature, rainfall, character of the seasons,) and the scenery.

Farms in this region are extremely productive. The rapid advance of the United States to a position of great prosperity among the nations of the world

has been caused chiefly by the development of arable lands. In the Pacific States, land which is not readily productive, has been irrigated, and it is not uncommon to find an acre of land giving from ten to twelve tons of alfalfa, or from one to two hundred bushels of potatoes, or from fifty to one hundred bushels of corn. Fruit trees grow in immense quantities, and every effort is made to raise the maximum quantity of fruit. For instance, bee culture is encouraged, not only for the sale of honey and beeswax, but also for use in pollenizing the blossoms of the fruit trees.

The people of the Pacific States seek to attract desirable people to their section, and hence they have set about reclaiming their desert lands because they see in this a sure means of increasing the population and wealth of their respective states. They are utilizing to the fullest extent the opportunities which lie within the boundaries of the Pacific States.

Besides, reclaimed deserts, mighty forests, rich mines, and grand mountains add to the attractiveness of this once unexplored wilderness.

This area is not thickly settled, as examination of the area and population of these states in comparison with the Eastern states will prove. For instance, the area of Oregon, which is by no means the largest state, is greater than that of both Pennsylvania and New York, though its population is only one eighteenth of these states. The State of Massachusetts could be placed in a single county in Oregon.

The people of the Pacific Coast are enthusiastic about their section and are energetic in advertising their goods and in placing them in Eastern markets. Even though the haul across the continent is long, they have entered into successful competition for the control of the fruit markets of the country. In one year the State of Washington shipped eighteen thousand carloads of apples to various markets.

Many problems can and will, in all probability, be brought out by the pupils. In Appendix A (pp. 263-278), two more problems, which follow the regional treatment, are given.

Type studies, too, form a valuable method of study of these states. The surface, as a whole, is a mile above sea level, with ridges of mountains frequently towering two miles or more high. The entire region is so great in extent, so varied in quality of soil, and so wide in range of temperature and products, that teachers attest to the fact that a number of type studies can convey an excellent geographical notion of the entire region. These type studies afford an opportunity to present the physical features, irrigation, dry farming, herding or ranching, fishing and fur trading, mining, fruit growing, and lumbering.[5]

As has already been suggested, (pp. 81-83), this region as well as other sections, can also be taught advantageously by means of journey geography.

The following minimum essentials of place geog-

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[5]See, "Type Studies," C. A. McMurry. (Mac.)

raphy are suggested: Name and locate the states; tell at least one important fact about Columbia, Puget Sound, Sacramento, San Francisco Bay, Yosemite, Los Angeles, Seattle, Tacoma, San Diego, Spokane, Shasta, Hood, and Ranier.

REFERENCES

"Economic Geography," C. R. Dryer, "How the World Is Fed," "How the World Is Clothed," "How the World Is Housed," "North America," F. G. Carpenter (A. B. C.); "Geography of California," Fairbanks (Harr Wagner Publishing Co., San Francisco); "Type Studies," McMurry, "How We Are Fed," "How We Are Clothed," "How We Are Sheltered," "North America," Chamberlain (Mac.); "United States," Allen, "Industry and Trade," Bishop and Keller (Ginn); "Stories of Luther Burbank," Slusser and Others (Scrib.); "Commerce and Industry," Smith (Holt); see also Appendix B.

A general study of the United States as a whole.— In a study of this character, coöperative reading to determine the development and present status of our country is necessary; and thereby a perspective of the United States as a living and developing whole should be obtained. In the study, each pupil should become acquainted with the importance of how and why all should work together in the nation's business.

Minutely accurate statistics are not necessary, but round numbers, which can be more easily retained in memory, may be regarded as representative of essential conditions.

Knowledge of our land and our people is necessary for a fundamental appreciation of our nation's life. The complete geographical story of the United

States is extensive. In this elementary study the salient features only can be treated, and the story must be abridged to cover a few hours of intensive study. The activities of both pupils and teacher must be directed to the organization of the information which will be gained. This is but another way of saying that proper methods of study must be applied to the subject.

The main problem for consideration is not to determine whether the United States, in case of isolation by a great war or by some world catastrophe, could be self supporting, but rather to inquire into our country's capacity and the disposition of our people to keep the United States the safest place in the world in which to live.

Supplementing the geographical story with lessons which point out the genius of America in various lines of activity definitely related to geography should form a part of this study. The necessity, in modern life, of preserving food so that it may be used throughout the year; the production of food in sufficient quantities to feed the great cities and make city life, and hence great industrial production, possible; the use of labor-saving machinery; inventions and science; concentration of population and industries; conservation—all these and more, help to unfold the whole story of man's conquest of his environment.[6]

[6] *Lessons in Community and National Life.* "Preserving Foods." Susannah Usher. Series C, 57–64. "Feeding a City." Katherine McLaughlin. Series B, 33–40. "Inventions." W. I. Thomas. Series C, pp. 73–80.

The minimum essentials of the previous studies about the different sections of the United States need to be applied; and all the ideas which have been gained, should help in this study of the country as a whole.

Teaching by groups can assist, since it is possible to assign to different groups of pupils respective topics, questions and minor problems for which they must be responsible to the class by reporting the answers. (See pp. 74-75).

Questions in geography textbooks may or may not be development questions, for the answers may be simply a series of unrelated, isolated facts. In what section of the United States would you rather live? Why? Why is the East more thickly populated than the West? Is it worth while for the United States to spend so much on irrigation? Why? This type of question, relating in series to some specific study, and the answer to which leads the pupil to the appreciation of related information, is the kind to be employed. The responsibility of expert instruction in a study of this kind is obvious, for the important purpose of it is to instil a patriotic pride in our country's activities.

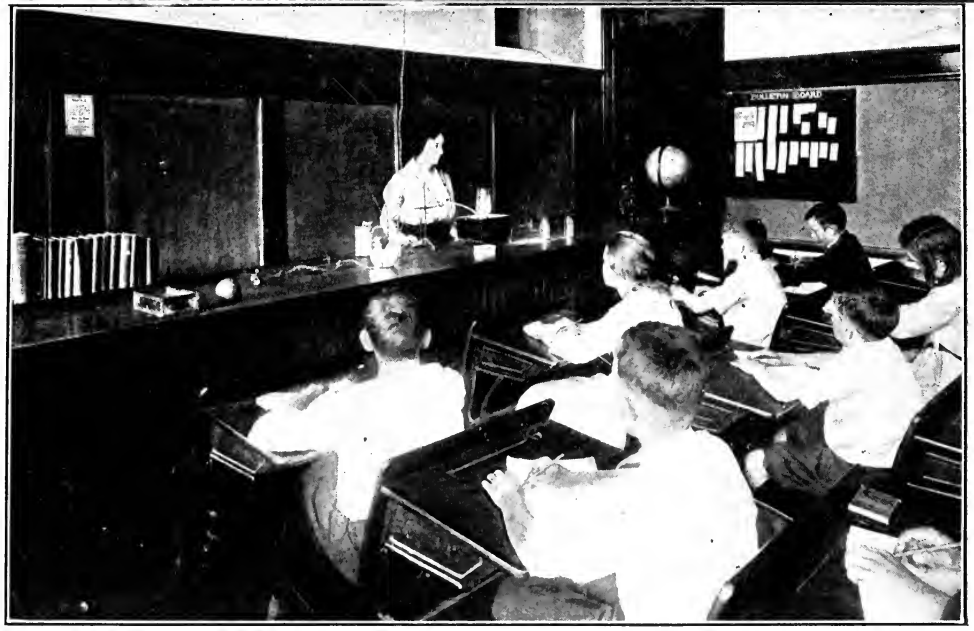
In what important ways did the Unted States contribute to the winning of the World War? In what ways is our country richly endowed by nature? Have these natural conditions been advantageously developed? Surely, the consideration of these and similar problems would lead to the appreciation of the position and size of our country; the physical

factors which influence production—climate, soil, latitude, altitude, winds, ocean currents, topography, and rainfall; vegetation—drainage, irrigation, agriculture, and natural productive areas; industrial sections—minerals and manufacturing; animal life; communication and transportation—ports and commerce; people—distribution of the population in relation to occupations, cities, and rural communities.

In the development, the significant reasons why we should play the important part we do in the world's affairs should be stressed. What has caused our rapid advance to a position of great prosperity among the nations of the world; our dependence upon foodstuffs; how the United States is able to maintain her industries—these and dozens of other questions should be answered as the horizon of knowledge and appreciation of our country broadens.

REFERENCES

"Principles of Human Geography," Huntington and Cushing (Wiley); W. M. Davis's description of the United States in "International Geography," Mill (Appleton); "Descriptive Geography—North America," F. D. and A. J. Herbertson (A. & C. Black); "The Geography of Commerce and Industry," W. F. Rocheleau (Ed. Pub.); "American History and its Geographic Conditions," E. C. Semple (H. M.); "World Almanac" (Press Publishing Co., New York City); "Three Industrial Nations," pp. 173–358, L. R. Blaich (A. B. C.); "The Story of Agriculture in the United States," Sanford (Heath); "Great Cities of the United States," Kramer and Southworth (Iroquois Publishing Co.); "Industry and Trade," Bishop and Keller, (Ginn); "Type Studies," C. A. McMurry (Mac.); "North America," F. G. Carpenter (A. B. C.); "North America," J. F. Chamberlain (Mac.); *National Geographic Magazine*, June, 1920.



3. "Why's of the Atmosphere"

OXYGEN IS BEING PREPARED FOR THE CLASS. RESULTS ARE BEING RECORDED FOR FUTURE APPLICATION. TEACHER ACTIVITY IS PROMINENT HERE BUT NECESSARY FOR THIS INTRODUCTORY LESSON

5. Alaska, Canada, Mexico, Central America, outlying possessions of the United States, Cuba, and the West Indies.—Take care, in the initial stages of each of these studies, to dwell carefully upon the strange names which must be encountered. Heretofore, the pupil has had comparatively little difficulty in the immediate recognition of names; but now he is to be introduced to puzzling mixtures of consonants and vowels. Provide for sufficient association and application, for adequate recall and review of the difficult names which are important.

The complete study of each subject involves consideration of the following topics: location, comparative size, coastline and surface, climate, vegetation, minerals, and manufacturing occupations, communication and transportation, and the distribution of population relative to occupations.

Alaska.—Alaska was bought from Russia in 1867 for $7,200,000. Has this purchase proved a good investment? The suggestions of method which follow indicate how the problem may be solved.

Consideration of the following minor problems may prove helpful: Why have many people emigrated to Alaska in recent years? Is it likely that more people from the United States will go to Alaska? Why would a trip to Alaska prove interesting and instructive? How did Alaska help to win the World War? In what respects are Alaska and the Scandinavian countries similar? Is Alaska a desirable place in which to live?

The total area of Alaska is as great as that of Great

Britain and the Scandinavian Peninsula. It is almost twice as large as the area covered by the original thirteen states, and the climatic conditions are about as different in Alaska as in the thirteen colonies. From the northern to the southern boundary is a distance equal to that between the Canadian line and the Mexican border. From east to west the distance is 2,000 miles.

The minerals of Alaska have paid many times the purchase price, for, since 1867 (to 1920), it has produced $437,465,930 worth. Gold, copper, and coal are mined in enormous quantities. Since railroads have been built across the mountains, mining is being still further developed. The construction of the Alaskan Railway was a government enterprise which called forth the heroic pioneering qualities of the Americans who built it.

The fisheries have also paid many times the amount paid for the country. Fish products since 1867 (to 1920) have reached the total of $413,749,223. Salmon, cod, and halibut are the principal catch.

The fur-bearing animals have, since 1867 (to 1920), put $84,704,428 into the hands of the United States. The government protects the seals, and hence they are not being exterminated. Those companies which engage in the fur trade pay the government a special privilege tax.

On the seaward slope of Alaska, forests are very valuable, since they yield spruce, the wood of which is used for boxes, wood pulp, and airplane framing,

yellow cedar, fir, white pine, and balsam fir, which is used for tanning. Twenty-seven per cent. of the area of Alaska is covered with forests. Of this, about 31,000 square miles—about the area of Maine —are covered with merchantable timber.

REFERENCES

"Little Journeys to Alaska and Canada," M. M. George (Flanagan); "North America," pp. 298–306, F. G. Carpenter (A. B. C.); "North America," pp. 183–193, Chamberlain (Mac); "Scenes from Every Land," Grosvenor (National Geographic Society, Washington, D. C.); "Alaska," Underwood (Dodd); "Industry and Trade," Bishop and Keller (Ginn); "The Wide World" in "Youth's Companion Series," (Ginn); see also Appendix B.

Canada and Mexico.—Both Canada and Mexico can be studied advantageously if a comparison is made of the two countries. The following problem will serve the purpose: Why has Canada progressed more rapidly than Mexico? The brief statements and minor problems which follow point to the salient features which should receive attention. The development should be amplified.

An examination of the trade relations between the United States and Canada will answer the question, Why are Canada and the United States good friends? The absence of extensive trade relations with Mexico has been caused by the fact that American capital could be profitably invested at home, and because the Mexicans speak a foreign language. Because of the lack of reciprocity treaties, because of the lack of direct steamship lines, because of the absence of

stable government in Mexico, and because of inadequate railroad facilities, the United States has found further cause to neglect trade relations with Mexico. Consequently, it is European capital that has helped develop Mexican industries.

Although the British Government has given land to settlers in Canada, and thus assisted in the development of that country, the population of Canada is much smaller than that of the United States. Large numbers of American farmers from time to time leave the United States and emigrate to Canada to take advantage of the tillable lands available in this neighbor's territory.

The natives of Canada are from better classes of people than those of Mexico, and the Canadians are reckoned among the foremost farmers of the world.

The industries of Canada are more numerous and better developed than those of Mexico.

Examination of the governments of the two countries will also help to account for the difference in prosperity.

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Canada: "North America," pp. 30–81, 153–162, F. G. Carpenter (A. B. C.); "North America," Chamberlain (Mac.); "Our American Neighbors," pp. 13–148, Coe (Silver); "Canada, Britain's Largest Colony," Hayden (Cassell, London); "Campfires in the Canadian Rockies," Hornaday (Scrib.); "Canada," Richmond (Ginn); "Canada," Bradley (Holt); "Canada" in "New International Encyclopædia"; *National Geographic Magazine*, March, 1913, May, 1913; see also Appendix B.

Mexico: "North America," pp. 327–345, F. G. Carpenter (A. B. C.); "North America," Chamberlain, "Mexico, the Wonder-

land of the South," Carson (Mac.); "Mexico and Peru," Richmond (Ginn); "Our American Neighbors," pp. 151–193, Coe (Silver); "Strange Lands Near Home," in "Youth's Companion Series," (Ginn); "Roy and Ray in Mexico," Plummer (Holt); "Mexico Picturesque," Wright (Lip.); "Mexico" in "New International Encyclopædia"; *Mexico*, a pamphlet of general descriptive data (Pan American Union, Washington, D. C.); *National Geographic Magazine*, July, 1916.

Central America.—Using the descriptive and illustrated pamphlets of the Pan American Union, magazine articles, combined with the reading matter in the geography textbook and supplementary geographical readers, the importance of Central American countries to the work of the world can readily be determined.

Outlying possessions of the United States.—These possessions are Alaska, the Philippines, the Hawaiian Islands, Porto Rico, Canal Zone, Guam, and Tutuila. Suggestions for the study of Alaska, the Philippines, and Hawaii have already been presented.

Porto Rican industries are wholly agricultural, sugar, coffee, and tobacco being the most valuable products. Transportation facilities are not good. Two problems could be presented for consideration: Why has Porto Rico progressed? and, Why did the United States purchase the Danish West Indies?

Not only should it be impressed upon the pupils that an important possession like the Panama Canal needs to be protected, but also the means employed to secure this protection should form an essential part of the instruction. To this end, it would be

well to consider how the United States has helped the Canal Zone (health and sanitation), and whether the Panama Canal has proved a paying investment to America.

The government announced that, for the fiscal year of 1919-1920, there was a net profit of $2,387,599 from the income of the Panama Canal. An annual amount greater than this, however, must be reached before the construction of the canal will become a paying investment. The total cost of its construction, exclusive of expenditures for protective armament, was $366,650,000. Although it is not paying financially, it is paying in other ways, for through its use there has come about a great stimulation of American trade with the west coast of South America as well as with the Orient.

Guam is one of the Ladrone Islands and is important as a naval station. Tutuila, one of the Samoan Islands, is a coaling and a naval station. Both of these possessions are of strategic importance and help to secure the interests of the United States in the Pacific. In the foreign trade of the United States, these possessions occupy a significant position. (See Section 11).

The new possessions of the United States in the Pacific and the rapid development of the Pacific Coast made it necessary for the government to undertake the construction of a canal through the Isthmus of Panama. America has begun a new policy of expansion and has entered the race for world trade. Although warning the nations of Europe to

keep away from the Western Hemisphere, the United States now possesses land in the Eastern Hemisphere. The historical story connected with these possessions is interesting and absorbing.

REFERENCES

"Panama, Past and Present," F. Bishop (Cent.); "Central America," W. H. Koebel (Scrib.); see previous references on Alaska, p. 157, and "Philippines," "Hawaii," "Porto Rico," "Canal Zone," "Guam," "Tutuila," in "New International Encyclopædia"; see also references on Philippines and Hawaii in Chapter III, pp. 37-39; 41-42.

Cuba.—Cuba is the largest of the West Indies, and is an independent republic. Main problem: It is said that a country advantageously located, with abundant food and resources, prosperous farmers, a stimulating and healthful climate, easy transportation, excellent sea coast, and good opportunities for recreation, is, geographically speaking, an ideal country. Does Cuba, a great garden, possess all of these advantages?

Development

I. Position: 100 miles south of Key West, Florida. Size: 780 miles long, varying in width from 20 to 100 miles. Area, 450,000 sq. mi., the size of either Pennsylvania or New England. It takes 24 hours by train or 48 hours by steamer to go from Havana to Santiago.

II. Coastline and surface: There are 2,000 miles of

coastline. As is characteristic of the West Indies, it is somewhat mountainous. Why? Three fifths of Cuba is fertile plain and about one fifth swampy region. It is sometimes called the "Island of a Hundred Harbors." In the pamphlet "Cuba" (Pan American Union), p. 1, there is a description of Santiago harbor.

III. Climate: Cuban summers are like our July and August; their winters like our April and May. Breezes blow from the ocean. The trade winds temper the heat; the nights are cool. On the coast there is malaria; but, generally speaking, it is not an unhealthy country. Summer resorts are plentiful.

IV. Vegetation, minerals, and manufacturing occupations: The sugar crop of Cuba is worth more than one hundred million dollars, when the price of sugar is high; their tobacco brings thirty-five million or more; their citrus fruits bring ten million or more; pineapple, honey, asphalt, iron, henequen, mahogany, cedar, and cacao bring them fifteen million or more (*Statistics of 1919*). Cigar factories are abundant. Iron, manganese, and copper are the chief minerals. See pamphlet, *Cuba*, pp. 16-20 (Pan American Union).

V. Communication and transportation: Havana is a modern city. There are paved streets,

electric lights, sewerage, and water works; stores are modern; banks, libraries, schools, churches, and modern theaters serve the people. The high office buildings are metropolitan. The suburbs of the city are connected by electric lines, and railroads lead from the interior to the harbors. Cuba has 2,360 miles of railway lines; 200 miles of electric railways. The island is 54 miles from Haiti, 130 miles from Yucatan, and 85 miles from Jamaica.

VI. The people of Cuba: Cuba has 24 cities containing 25 per cent. of the population. Its population is largely native, engaged in harvesting the sugar, tobacco, and fruit crops. Government—(Consult a good history). The government, a republic in form, is in the hands of a president chosen by popular suffrage. He serves four years and appoints his own cabinet. The Congress consists of a Senate and a House, one representative being chosen for every 25,000 inhabitants. The provinces, of which they have six, correspond to the American States, elect their own governors and control their internal affairs.

REFERENCES

"Australia, Our Colonies, and Other Islands of the Sea," F. G. Carpenter (A. B. C.); "Strange Lands Near Home" in "Youth's Companion Series" (Ginn); "Cuba and Porto Rico," Hill (Cent.) "Cuba, Past and Present," Verrill (Dodd): "Climate," Ward (Putnams); see also Appendix B.

The West Indies.[7]—The following problems about the islands of the West Indies are presented without suggestions for their development: How important is Jamaica to Great Britain? What necessities do the Bahamas contribute to world trade? If Haiti, under the protection of the United States, becomes civilized, of how much importance could it become? How important is Trinidad to Great Britain? Why are the Bermuda Islands well known?

6. The continent of Europe.—Modern Europe is best understood through the study of both its history and its geography. In order to gain at least an elementary geographical knowledge of this continent, the different regions or physical characteristics may well be studied first. With a map of Europe before the class, the most important physical features should be investigated by the pupils. What are the most important and interesting features? This question and the problem, In what ways is Europe, one of the smallest of all the continents, fitted to be the home of so many different countries? can be answered by studying in accordance with the outline and suggestions which follow.

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[7]Illustrative material about Bermuda and the West Indies can be obtained from the Quebec Steamship Co., New York City; about Haiti, the Dominican Republic, and the Panama Canal from the Pan American Union, Washington, D. C., and about Trinidad, from the Barber Asphalt Company, Philadelphia. Illuminating and interesting reading matter, including illustrations, about any of the studies given above, can be found in the issues of the *National Geographic Magazine*. If both time and interest will permit, the wealth of material which can be secured from the above sources will serve to acquaint pupils with "some little-known marvels of the Western Hemisphere."

The Great Central Lowland stretches across northern Europe from the Pyrenees to the Ural Mountains and embraces about two thirds of the continent's area. This lowland is triangular in shape, with the base on the eastern boundary and the apex near the shores of Holland. It separates the mountain systems of Europe, the Scandinavian or highlands of northwest Europe in the north from the Pyrenees, Alps, Carpathians, Balkans, and Caucasus in the south. Since, within this area, an abundance of fish and game and extensive forests exist, agriculture has not developed. Because of the lack of defensive barriers within the lowland, constant warfare has been waged. Earlier than can be traced, there was an immense emigration from the base of the Altai Mountains (Asia), which spread over northern Europe. This, with other migrations and subsequent settlements, caused many peoples to make their homes in Europe. The lands along the great river valleys, possessing superior advantages, became densely populated. What peoples have been attracted to the countries lying within the lowlands? Do the physical conditions make the nationalities secure? How have they existed?

The highlands of northwest Europe or the Scandinavian Highlands are noted for their beautiful scenery. In both Scandinavia and Scotland, the land is not conducive to farming, though this does not mean that none of the land is tillable. The climate is cold and wet. The soil is rocky and there is to be found great wealth in both forests and fish-

eries. What peoples have been attracted to this region? What are their claims? Do the physical conditions make the nationalities secure? How do they exist?

The Mediterranean region, accessible to the entire continent of Europe, may be said to be the playground of the continent. The Mediterranean Sea is connected with the Black Sea by the Dardanelles, Sea of Marmora, and the Bosphorus. The Suez Canal connects it with the Red Sea. The chief rivers which flow into it are the Rhone, the Po, and the Nile (from Africa). The Mediterranean Sea is famous in history, poetry, and ancient story. Of the countries bordering the Mediterranean, Phœnicia, Greece, and Italy have, since ancient times, been the cradle of civilization.

The Mediterranean Sea, one of the most important water routes of the world, is separated from central and northwestern Europe by mountains. These mountains have been pierced by three tunnels: Mt. Cenis, St. Gothard, and the Simplon. There are sixteen great passes over the Alps, and famous marches across them have made them well known in history.

Why is manufacturing not an important industry with the Mediterranean people? What nationalities are now settled in these countries? Are their fatherlands secure?

The region of the Pyrenees and the highlands of the northern part of the Iberian Peninsula, possess certain geographical advantages. On both north and south, the mountains, sinking down to the plains in a

series of terraces with precipitous faces, offer a protective barrier to the people. This region is rich in iron ore and forests. Recreational advantages are afforded the people.

The region of the Alps is one of the most famous of the world. As an important barrier between the Italian Peninsula and the Great Central Lowland, it has been necessary for man to overcome this difficulty. The lofty east and west mountains affect the climate of the lowland to the north. Streams from the Alps not only supply water power, but also afford water for irrigation purposes. This region, sometimes called the "Playground of Europe," is both a summer and winter resort. While grazing is important and lumbering is extensive, few minerals are found. A large number of different countries have made claim to this region.

The people of the Carpathian region have not found their ancient nationalities secure. This portion of Europe, which has recently witnessed extensive political changes, included the old Austrian Dominions and the Plain of Hungary, one of the richest of the lands of Europe. Forests, steep precipices, and narrow ravines combine to make the Carpathians a magnificent sight. In this region cattle and sheep abound. There exists an extensive forest belt and mining is an important industry. Where are the large cities of this region located? What causes determine their locations?

The mountainous Balkan region, a peninsula in form, once afforded protection to many backward

and unprogressive people. In what condition do the nationalities of this region now find themselves? How did they make a living in the past? With recent political changes once settled, will the condition of the people be improved?

The Caucasus Mountains form a part of the boundary between Europe and Asia. The Caucasus Range has been called the "mountain of languages" from the many tongues, distinct from one another, and having little or no similarity to other languages of the world, which are spoken in this nar ow region. The mountains are so lofty and present such difficulty to those who would cross them, that, until recent years, there was little intercourse between the people living upon opposite sides. Even now there are but two roads across the mountains: the Derbend Pass and the fine military road built by the Russians through the Dariel Gorge.

The mountains, between the Black and the Caspian seas extend west-northwest and east-southeast. If they had extended north and south instead, they would have been effective in checking ancient migrations. The Black Sea, the Sea of Azof and the Caspian Sea afforded a water route around these mountains, at the base of which are valuable forests because they are extensive in a part of the world where forests are scarce. Streams from the mountains furnish water for purposes of irrigation. The climate of practically the entire region is agreeable. Some sixteen or more distinct and well-marked races, including the Georgians, the Circassians, and the

Armenians, are found in the region of the Caucasus. Recent political changes have occurred and territorial changes have been made.

Thus it was that the irregular coastline and the complex mountain system of Europe geographically attractive, naturally invited peoples of different aptitudes and capacities to settle, as many nations, in this relatively small area. The new ideals regarding countries, as a result of the World War, would guarantee to each race or nationality, however small, the right to live as an independent government. How has this principle affected the map of Europe since the World War?

REFERENCES

Maps: physical, racial, political, and economic; various standard encyclopædias; current periodicals, such as *Geographical Review*, *Journal of Geography*, *National Geographic Magazine*, *Literary Digest*, *Independent*, *World's Work*, *Current History Magazine*, and newspapers; commercial and physical geographies; a history of modern Europe.

Illustrative problems.—In the development of that section of the Great Central Lowland between the Vistula and the Duna and Dneiper rivers, the following problems might be considered. At the conclusion of the study of the minor problems suggested, the facts should be organized in the form of a brief summary.

The first main problem to be considered is, Do you think this section of the lowland should possess superior transportation facilities? Why?

The organization of the facts which would lead to the solution of this problem could follow from a study of some minor problems. What are the opportunities for river transportation? What is the combined length of river traffic? Why do these rivers possess less volume of transportation than those of the western part of the lowland? What canals have been dug to permit transportation from one river to another? Examine a railroad map of Europe. Does this portion of the lowland possess many railroad lines? How are Petrograd and Moscow connected with the rest of Europe? Examine a physical map of Europe, and note particularly the relief, soil, climate, and presence of farms. Would one expect to find good roads here? What products are raised in this region which need transportation to markets? Trace the routes. Which routes are most favored? Where are the coal fields? What commodities must be imported?

Another problem might be considered: What advantages have the Baltic countries of Esthonia, Latvia, Lithuania, East Prussia, Poland, and western Russia because they are located in the Great Central Lowland?

From a list of the ports of Europe, select those which the entire lowland contains. Determine whether Libau, Riga, and Petrograd are favorably located. What is the relation of the cities of the above countries to the rivers and to the seas? What is their relation to the commerce of the country? To the coal mines? Why should Danzig be made a

Free City under control of The League of Nations?[8] Why should Memel be under control of the League?

A number of interesting questions might also be considered. Why has our acquaintance with the people who live in this section of Europe been limited? Why is interest centred upon them at the present time? Have the people who live here enough geographical advantages to warrant extensive geographical study?

The Races of Europe, a map published by the National Geographic Society, will be of assistance in this study. With the aid of this and other maps, the reading and study of the recitation will be decidedly stimulated.

The interdependence of people, the appreciation of which is so important, requires the consideration of other problems. It is for this reason that no one region can be separated and studied entirely alone. The peoples of the world are inextricably bound together by economic bonds.

The industrial population of western Europe requires food. What effect has this need upon agricultural pursuits in Europe?

In order to find out why the people of the eastern lowland are behind those of the west in comforts, arts of modern life, and industries, it is necessary to note that the eastern people are unprotected from Asiatic invasions; the streams are sluggish, and hence there is lack of water power; the mountainous life in

[8] "American Problems of Reconstruction," pp. 245–266. Edwin J. Clapp. (Dutton.) An excellent discussion of this important subject.

certain sections preserves early conditions; and the region, as a whole, is remote from the centres of civilization.

Many of the large cities of the western lowland are situated upon estuaries or rather, bays. Determine why this is true.

The Great Central Lowland: Russia.—Russia is such a large country, the area embraced by it is so extensive and varied, it is in such close proximity to Asia and its physical characteristics are so similar to those of Asia, that the study of Russia might well be undertaken immediately before either the continent or the countries of Asia are considered. In other words, this country's geographical story might be called a transitional narrative which contributes many ideas that will prove useful when the class will seek to gather data about the Orient.

A problem which would assist in such a study is connected with a marketplace in Russia. Many fairs, or markets, have been held at Nizhnii Novgorod. Why should this place be selected for an annual exhibition of products of Europe and Asia?

What does one find out about the surface of the country around Novgorod? Locate Archangel. Locate Odessa. Which is the more important port? Compare the location of Novgorod in Russia with that of St. Louis in the United States. What are the opportunities of river transportation to Novgorod? By the Dwina? By the Volga? From the Mediterranean? By the Dneiper? From Asia Minor? Make a list of the articles of trade which Europe

would furnish the fair; Asia Minor; Turkey in Asia; other countries. On an outline map, show the routes followed to the fair.

The surface of the country surrounding Novgorod is generally flat. The site is easily accessible to all the lowland of Europe both by land and water; it is also easily reached by Asiatic peoples.

The rivers flow from north to south into four seas. The sources of the rivers are near together, and canals afford continuous waterways for 5,000 miles or more. The situation of St. Louis in the United States is comparable.

Many articles of trade can easily be brought to Novgorod. By way of the Dwina, lumber, fur, coal, iron, and platinum can be brought; by way of the Dneiper and Don the route is opened to Turkey, Arabia, Persia, and India. Rugs, leather, and tobacco come from Turkey, coffee from Arabia, and from India, muslins, spices, shawls, carpets, and rugs. Silks, cotton, fruits, and wines come from the Mediterranean countries, chinaware and metal goods from Germany, and glass and wheat from Austria. England sends cutlery, jewelry, iron and steel goods, and France supplies cloth. Up the Volga, boats bring fish and oil, astrakhan, mats, hides, and perfumes. Overland, by the Trans-Siberian Railway, tea, rice, and silk come from China. From Riga, by the Duna and Volga, amber can be transported from Lithuania. From Warsaw, cotton and woolen goods, glass and chinaware are sent.

A type study of Russia.—Russia has one sixth of

the land area and one twelfth of the population of the globe. Explain her lack of progress.

Russia has suffered and is now suffering from the effects of misgovernment. Until 1917, there was an unlimited monarchy and a corrupt bureaucracy. The power of the Duma was limited under the Romanoffs. There was every evidence of lack of social, religious, and political freedom. Not only have the masses been kept illiterate through lack of educational advantages, but the people have been repressed in every walk of life by the cruelty of the former police.

The population is largely composed of Asiatic peoples. There are more than forty different languages and races in Russia. Up to a short while ago, serfdom existed in reality, though not in name, for the land was owned by barons who exerted their power over thousands of farmers. (See pp. 12-13).

The physical characteristics of Russia have played a large part in prohibiting progress. The seacoast is meagre. There are few ports, and most of these are ice bound during a large part of the year. The country's area is so large that the community spirit is lacking. Because of many swamps and marshes, transportation overland is difficult. The absence of defensive boundaries has led to constant warfare and to invasions from Asia. The climate is so disagreeable in the north that these people, seeking a better abode, have sought to overrun the lands in the south.

Under these conditions, one would not hope to find up-to-date methods of industry in vogue. Russian

methods of agriculture are primitive. Though many minerals are available and forests are plentiful, the natural resources, through lack of personal initiative, are not utilized. Most of the manufacturing that is done is carried on by means of primitive methods of home industry. It is only occasionally that one finds a modern industrial plant equipped with labor-saving machinery.

Because of recent political changes and the territory occupied by new European nations, Russia's area has been diminished.

The minimum requirements of place geography should include Volga, Petrograd, Odessa, Warsaw, Archangel, Vladivostok, Kola, Caucasus, Ural, etc. In contrasting the new Russia in size and area with the old Russia, note Esthonia, Latvia, Lithuania, Poland, Finland, and Ukraine. (See pp. 244-259).

7. **The countries of Europe.**—*A general directive problem.*—A large number of the countries of Europe are densely populated. Emigration is a partial result of this condition. European nations depend upon one another and upon other countries of the world to furnish them with those things which they desire or need but which they do not raise or produce. At the same time, each nation is seeking to be independent of other countries or self-supporting.

What are the most obvious means of self-support which a densely populated country of small area seeks? The country can try to increase its area within the continent by securing adjacent territory

or an outlet to ocean trade. Or, by building canals, by arranging for drainage, and by irrigation projects, the country can reclaim land within its own boundaries. Or, the country can seek lands elsewhere or establish colonies, to which immigrants can be sent, manufactured products sold and from which raw materials can be secured.

The country can set science to work on its existing resources. If this work is successful, by-products, which have heretofore been wasted, can be made useful. Improved methods of agriculture and of manufacture, intensive farming on the fertile lands, the use of less fertile lands for grazing and breeding profitable animals—these and dozens of other advantages help to increase the productive power of the country.

REFERENCES

"Europe," F. G. Carpenter (A. B. C.); "Europe," Chamberlain (Mac.); "The New Europe," N. B. Allen (Ginn); "The Continent of Europe," L. W. Lyde (Mac.); "Climate," Ward (Putnams); "A Cruise Across Europe," Maxwell (Lane.)

The British Isles.[9]—Bringing the facts above to bear upon Great Britain, which has more colonies than any other country in the world, these questions might be asked: Of what advantage are colonies to Great Britain? What help does she render colonies? (Protection, government, etc.) Why is it necessary for Great Britain to maintain a large navy and merchant marine?

[9]Section 12 contains a study of the British Empire by both topics and problems.

In answering these problems, the minimum requirements of place geography are rather extensive because of the importance of so many places and possessions. The following should be listed: Surrounding waters—North Sea, British Channel, Irish Sea, St. George's Channel, and the Strait of Dover; important rivers—the Severn, the Thames, the Firth of Clyde; important cities—London, Liverpool, Sheffield, Manchester, Birmingham, Cardiff, Dublin, Queenstown, Belfast, Glasgow, and Grimsby; important colonial cities—Ottawa, Halifax, Vancouver, Quebec, and Montreal in Canada, St. Johns in Newfoundland, Melbourne, Sidney, and Canberra in Australia, Wellington in New Zealand, Delhi, Calcutta, Bombay, and Madras in India, Johannesburg, Kimberley, and Capetown in South Africa, Cairo and Alexandria in Egypt, Columbo in Ceylon, Singapore in the Straits Settlements, and Hongkong in Asia.

REFERENCES

"Stories of England," Pratt (Ed. Pub.); "A Trip to England," Smith (Mac.); "The Scenery in Scotland," Geikie (Mac.); "Kathleen in Ireland," "Donald in Scotland," in "Little People Everywhere Series" (Ed. Pub.); "Principles of Human Geography," pp. 5, 10, 179, 251, 254, 346, 358, 382, 383, 394, Huntington and Cushing (Wiley).

France.—The story of France as one of the four great manufacturing and commercial nations can be developed from the problem, How can France support such a large population?

The location of France is favorable to its commercial development, for it is within easy reach of other

European countries, it is opposite America and it is convenient to Mediterranean trade.

The surface of France has helped not only to develop its industries but also to protect its people. Natural barriers on the south and east have kept away the invasions of foes. Swift rivers, in their course through the country, furnish water power. In the mountains, minerals are mined, iron and coal furnishing occupation for thousands.

France boasts of a coastline on three sides; it possesses important seaports; it makes extremely good use of its rivers; and its cities are known throughout the world.

The people of France enjoy a favorable climate, for the country receives warm winds from the Gulf Stream and the Mediterranean, and one can go to its mountains and find the climate to suit the taste. Under these conditions the people are industrious and skilful and enjoy the protection of a liberal government. Add to this the love of art, which seems characteristic of the people, and there is no wonder that Frenchmen are content to live within their native boundaries.

In addition to these suggestions, a number of questions will assist in further study. Why are we interested in France? Why were the French anxious to regain Alsace and Lorraine? Does France occupy a favorable position for agricultural pursuits? (Compare with the Baltic, North Sea, and Mediterranean countries.) Why is France attractive to tourists?

Paris, Havre, Lyons, Bordeaux, Marseilles, and other names of importance will be encountered in these studies. These form the minimum essentials of place geography.

As a project, using the world map, locate and name the French colonies. Trace on the map the commerce of France with the other countries of the world.

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"Europe," pp. 85–124, F. G. Carpenter (A. B. C.); "Principles of Human Geography," pp. 4, 10, 179, 361, 400, 401, Huntington and Cushing (Wiley); "The France of To-day," Wendell (Scrib.); "Paris and the Parisians," MacDonald (Lip).

Germany.—Prior to the World War, Germany was a great manufacturing and commercial nation, particularly jealous of Great Britain and possessing a large portion of the beautiful Rhine River. To determine why Germany was a great manufacturing and commercial nation, why she was jealous of Great Britain, and what advantage to the world there is in making the Rhine an international highway, form three interesting problems for investigation.

Locate and study: Berlin, Essen, Hamburg, Kiel, and the Rhine River. Using a world map, locate the colonies Germany lost by the World War and answer, Being bereft of these colonies, what advantages will Germany lose?

Italy.—Italy's story forms a large part of the history of Europe, for its location makes it an important link of communication between Europe and the Far East.

In 1453 the Turks captured Constantinople. The three great eastern trade routes which started from Italy were then blocked. England, Portugal, and France were then in a more favorable situation for world commerce. With the opening of the Suez Canal, the trade routes again led through the Mediterranean; the mail and express now go overland from France and England to Italy, and from thence to Egypt, India, China, and Australia.

Develop fully the reasons that make Italy an important link of communication between Europe and the Far East.

Why do so many southern Italians come to the United States? Why do so many of them wish to return to Italy? Why has Italy failed to make the same progress in manufacturing and commerce as Germany? What has Italy done to become self-supporting?

Among the minimum essentials in connection with the study of Italy, some historical and artistic phases of the influence of Rome would find ready application in the study of that city; and Venice, Milan, Naples, and Genoa have contributed in large measure to the world's civilization.

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"Europe," pp. 392–428, F. G. Carpenter, (A. B. C.); "Rafael in Italy," in "Little People Everywhere Series" (Ed. Pub.); *National Geographic Magazine*, October, 1916.

Switzerland.—In addition to the main problem, What influence has Switzerland upon the world?

the following minor problems could be presented: (1) Switzerland was free from invasion during the World War. Why? (2) Why is Switzerland a prosperous little country? (3) Switzerland is sometimes called the "Playground of Europe." Why? (4) What important lessons does Switzerland teach the world?

In the solution of the problems, the following suggestions are offered. Being inland and mountainous, Switzerland has been protected from invasion. The gorgeous mountains have attracted tourists from all over the world, while the fertile valleys have yielded a sufficient supply of food. The raising of cattle and goats and the making of dairy products are large industries. Fruit cultivation is also extensive.

The manufacturing that is done is highly specialized. The principal exports are watches, toys, music boxes, carved wood, buttons, clocks, embroidered goods, silk and cotton fabrics.

Good roads penetrate most parts of the country. By means of excellent railroads through the St. Gothard tunnel, which is $9\frac{1}{2}$ miles in length, and the Simplon Pass tunnel, which is 12 miles in length, one can easily pass beyond the confines of the country by rail. By way of the Rhone Valley, one can reach Paris, and by the Arksburg tunnel, Vienna. In fact, communication with the countries surrounding Switzerland is made comparatively easy, and great volumes of freight can be transported because of the low railroad rates which obtain.

People from all over the world come to view the magnificent sights of the Alps and other scenic wonders. Consequently, many good hotels, providing ample accommodations for thousands of tourists, have been erected. Since Switzerland is a land noted for its scenic beauty and startling phenomena, a series of lessons in journey geography can be made out and used effectively.

The minimum essentials of place geography include Geneva, Berne, and the Alps.

REFERENCES

"Gerda in Switzerland," in "Little People Everywhere Series" (Ed. Pub.); "Hours of Exercise in the Alps," Tyndall (App.); "The Scenery of Switzerland," Lubbock (Mac.); "Principles of Human Geography," pp. 82, 91, 96, 148, Huntington and Cushing (Wiley).

Norway, Sweden, Finland, and Denmark.—In studying Norway, Sweden, Finland, and Denmark, the following may prove helpful suggestions. Why would a trip to Norway be interesting? Germany, during the World War, continually insulted the Scandinavian people. Why did they not resent it? Why is Finland called the "Land of a Thousand Lakes"? Can you see any reason why Norway, in the World War, leaned toward the Allies and Sweden toward the Central Powers? Finland was recognized as a new and independent republic by Great Britain on May 6, 1919, and by the United States on May 7. Can Finland compare with Sweden in importance? Is the port of Kola a better one than Helsingfors? Why do the people of Norway, Sweden,

and Denmark speak similar languages and have the same civilization? Have topographical conditions assisted in bringing this about? Why is Copenhagen a famous port?

The United States, by the purchase of Alaska, is greatly interested in the development of this possession. Can the United States learn anything valuable from Norway, Sweden, and Finland?

The latitudes of Norway, Sweden, and Finland are identical with those of Alaska. Seward, in Alaska, is almost on the line with Christiania and Stockholm. The area of Alaska is greater.

To Norway and Sweden many European tourists go in search of recreation. Few American tourists visit Alaska, although it is reported by those who have had the opportunity to compare the Scandinavian advantages of recreation with those of Alaska that the scenery of Alaska is more picturesque, that the mountains are more sublime, that a climate suitable to any one can be selected, and that eventually Alaska will become a summer playground for the Western Hemisphere.

Norway, Sweden, and Finland contain a population of about 11,000,000, while Alaska possesses only about 55,000 people, among whom there are only 30,000 whites. The Norwegians maintain extensive timber and fishing industries and engage in dairying. The Swedes are farmers. It is pointed out that Alaska has even more arable land than Sweden and decidedly more timber than Norway at its disposal. As yet, Alaska has no dairying industry.

Contrary to the general belief, cereals grow in northern countries with remarkable rapidity. It is said that in Uleaborg, Finland, oats, barley, and rye, the staple crops, require only seventy to eighty days from the time of seeding to maturity. Having long summer days, the frozen ground is thawed, and that part of the subsoil which remains frozen, acts exactly like a stratum of rock. Being impenetrable, the products of vegetable decay remain on the surface and a rich humus results. This is well adapted to the growth of plant life.

Reindeer are important to the Scandinavian countries. Smoked reindeer tongues and reindeer meat find ready sales in their markets. The skins of the reindeer are useful and valuable, for they can be converted into gloves, bindings for books, etc. Glue is made from the horns. It is predicted that Alaska will be able to support large numbers of reindeer which, in time, will help to support a large number of people. The government has taken steps in this direction, and the reindeer industry of Alaska is under the direction of the Bureau of Education, Department of the Interior, Washington, D. C.

The fact that Stockholm has a large population of about 340,000 people and because many other cities thrive in the Scandinavian Peninsula, encourages many to believe that cities of considerable size will develop in Alaska. In fact, observations of the prosperity of the people in the Scandinavian Peninsula and study of the methods they employ in agriculture, cause many to look with optimism toward

the increased usefulness of Alaska to the United States.

REFERENCES

"Land of the Long Night," Du Chaillu (Scrib.); "Through Scandinavia and Moscow," Edwards (R. Clarke Co., Cincinnati, Ohio); "Northern Europe," in "Youth's Companion Series" (Ginn); *National Geographic Magazine*, January, 1916.

Holland.—For the study of Holland see Chapter II, pp. 20-22.

Belgium.—Belgium, although only as large as our little state of Maryland, possesses a population which is about six times as large. Within this small area, coal, iron, zinc, sand, and clay are found, and thriving factories are at work converting these raw materials into finished products. The people raise sheep and manufacture the wool into cloth, carpets, and rugs. From flax, they produce linen and lace. From the forests they get lumber and wood pulp, which they convert into paper.

Not only are they a manufacturing people, but they have decided advantages for commerce. There are navigable rivers, good railroads, a complete system of canals, and they have access to the sea. Since the World War, Belgium has rapidly forged ahead to her former position of prosperity.

Is there any wonder that, with such a small area and such a large population, Belgium should seek to enlarge her territory? Has she succeeded in doing this?

Since Belgium is confined to a small area, since it

possesses a large population, and since the people are engaged in manufacturing and commercial pursuits rather than in agricultural pursuits, could it be said that, although a nation, Belgium is really nothing more than a great city?

REFERENCES

"Principles of Human Geography," pp. 179, 378, Huntington and Cushing (Wiley); "Europe," pp. 125–133, F. G. Carpenter (A. B. C.); "Northern Europe," p. 39, in "Youth's Companion Series" (Ginn); *National Geographic Magazine*, September, 1914.

Some countries of southern Europe.—One must consult the old map of Europe to find the location of the former Balkan States. What has become of these states? Why did they create trouble in European affairs?

The people of the Balkan States have remained backward. The theory is advanced that these people, at one time, were simply stragglers of the famous Crusaders—people from the various countries, who, years ago, made pilgrimages across this section of Europe for many centuries. In the survival of the fittest, some never reached the Holy Land, but sought refuge in the mountains, mixed with the few natives there and built up states. Under Turkish misrule, these people kept up continuous warfare from their mountainous homes.

A study of southern Europe presents other problems. Of what advantage was it to internationalize the Dardanelles? Why is Constantinople one of the most important harbors of the world? Is Greece an

important factor in the world's business? How important a place has Greece occupied in the past?

REFERENCES

"Europe," pp. 304–309, F. G. Carpenter (A. B. C.); "Through Savage Europe," Windt (Lip).

Spain and Portugal.—These were once great world powers. Explain the loss of their position. In a problem of this sort, it is necessary to have brought out those factors which operate to make a nation great in order to find out in what respects Spain and Portugal fail to measure up to the standards of the present day.

REFERENCES

"Spanish Cities," Stoddard (Scrib.); "Josefa in Spain," in "Little People Everywhere Series" (Ed. Pub.); "Europe," pp. 428–452, F. G. Carpenter (A. B. C.); "A Year in Portugal," Loring (Putnams).

Russia.—For the study of Russia see Chapter I, pp. 12-13, and above pp. 173-175.

Austria.—The boundaries of Austria have been changed since the World War.[10] In comparing this country with Germany as to people and commerce, the minimum essentials of place geography will be brought out. Among these, the city of Vienna will be studied as one of the great cities of the world. It will be interesting to find out why Germany and

[10] "The New Boundaries of Austria." *Journal of Geography,* January, 1920. The most recent geographies also contain maps of the new Austria.

Austria, formerly rivals, subsequently foes, finally joined hands again in the World War.

Other countries of Europe.—The new map of Europe (which is now found in the new geographies), shows that new nationalities have, as a result of the World War, been carved out of the old area of Europe. Esthonia, Latvia, Lithuania, Poland, Czecho-Slovakia, Jugo-Slavia, Montenegro, Ukraine, a new Austria and a new Hungary now appear.[11] (For detailed treatment of this subject see Part Two, Chapter II, pp. 244-259).

8. Asia, Africa, and Australasia.—*The continent of Asia.*—Although Asia is considered the oldest of the continents, being regarded as the cradle of the human race, people are astonishingly unfamiliar with its history and its geography. In the past, various domestic conditions prevailing on this continent, have, individually or collectively, tended to produce this situation, such as the caste system, nomadic life, ancestral worship, and religious asceticism. The result of these and other repressive influences has been the stifling or the retarding of the spirit of modern progress in Asia to such an extent that for years the people of the rapidly advancing western nations ceased to view her with interest and enthusiasm.

Recent awakening and rising importance.—However, within the last half century there have occurred significant events in this part of the globe, many

[11] See "Authoritative Map of Europe," Mark Jefferson, National Education Bureau, Ypsilanti, Mich.; "Atlas of New Europe" (Rand.), and "Map of the Races of Europe," National Geographic Society.

of which are in actual progress at the present moment; and these are evolving numerous problems vitally affecting our own interests and, at the same time, effectually influencing the course of modern civilization. For example, the ports of Japan and China are open to foreign trade. The penetration by missionaries proved to be an entering wedge to foreign influence which has been extended by armies of conquest and by business interests. Great Britain, dominating India and controlling the important seaport of Hongkong on the coast of China, has exercised upon those countries a constructive influence of progress by introducing machinery, developing agriculture, improving sanitary conditions, and establishing schools. Russia had developed some modern methods of economic and industrial achievements within her own vast Asiatic territory. Japan has come to be considered one of the most progressive nations of the world; and China, recently imbibing the spirit of progress, is now building railroads, establishing factories, developing internal resources, and remodelling her educational system. In southwestern Asia, new nations have risen upon the stage of history, evolving democratic governments and claiming the interest and attention of their western neighbors in the struggle. Natives of Asiatic countries are now pursuing courses of study in European and American universities for the purpose of bringing home to their own countries the ways of the western world. Everywhere in Asia more humane customs are supplanting the effete

and barbarous policies of by-gone eras. In fact, the entire continent is pervaded with a spirit of unrest, which aims at the attainment of loftier ideals and the living of better lives by the people.

Consideration of these things is the material which should occupy the attention of the modern teacher of geography.

Therefore it follows that one of the best problems which could be devised is, Why is so little known about Asia, the largest continent on the globe? Is it as important to the world's work as Europe or America? Why?

When this problem is set up, the pupils, in order to solve it, must concern themselves with finding out about the different countries on this enormous continent. Why has China developed so slowly? In what respects does Japan differ from China? Does Japan want to control China? Why? Why is Japan the only Asiatic country which is considered a world power? What evidences are there of progress in the Far East?

Considerable interest will, undoubtedly, be shown in learning of the modes of dress, the kinds of homes, and the peculiar customs of these Asiatic peoples. In this process, attention will necessarily be directed to the geographical conditions of the countries: transportation and industries, rivers, harbors, climate, soil, surface, and many other factors, all of which must be brought to bear in consideration of the problem, Why do so many people live in southeastern Asia?

In southern Asia, India occupies the chief interest. Why is this country so densely populated? What are the chief cities and how important are they? What has India done for Great Britain? What has Great Britain done for India?

When the center of interest shifts to southwestern Asia, an imaginary trip could be taken to the Holy Land, which method employs excellent books and pictures. What a tourist would find of interest in Arabia can also be taught pictorially by this method.

The oppression of the Armenians and our interest in them, the Syrians, and the people of Palestine are subjects which offer pupils opportunity to suggest problems. In Asia Minor, Smyrna is of considerable importance. To find out why and how Greece will profit by receiving it as a possession, forms an interesting problem.

Many teachers find it profitable to select topics from geographical studies and assign these for written composition. Many interesting ones can be found. From the study of Asia, the following might be used for this purpose: The importance of tea culture in India; What the silk industry means to China; Interesting customs of the Chinese; Chinese schools; The most interesting thing about the Japanese; The most important Japanese industries; What the Japanese make from bamboo; The Holy Land of to-day.

Siberia.—Because of recent political changes in Russia, Siberia has received considerable popular attention; consequently, illuminating descriptions of

the country's geographical importance and industrial and commercial possibilities are to be found. One reads of interest of Vladivostok, a combination of Gotham and Chicago, of Omsk, Ekaterinburg, Chita, Irkutsk, Harbin, Nikolsk; of her rich agricultural potentialities, of the alluring opportunities of the country in gold, silver, and the precious stones; and of the character of the people. In this way one is emancipated from old geographical textbook descriptions of Siberia as simply a cold, barren land, filled with prisons, exiles, deep snow and wolves.

It is perfectly natural to study Siberia in comparison with Canada. One wonders if Siberia can become as important as Canada. In the study transportation facilities can be contrasted. Has Siberia good facilities for transportation? Here the Trans-Siberian Railway as a factor in Siberia's development can be an object of inquiry. The difficulties of transportation on the St. Lawrence and opportunities for transportation on the other rivers of Canada can be compared with the great rivers of Siberia which are used as highways of travel in summer and winter.

In the race for the development of resources, are the geographical conditions of Canada more favorable? When the geographical conditions of the two countries are compared, not only do the industries assume form for comment and investigation, but the respective advantages of location and opportunities for exploitation appear. When the number, im-

portance, and beauty of the cities are contrasted; when the governments are considered and the difference between the inhabitants is noted, the relative progressiveness of the people can be deliberated upon. Finally, the part that Siberia played in the Russo-Japanese War and that of Canada in the World War will lend color to the comparison.

REFERENCES

"All Around Asia," Redway, "Siberia," Turner, "Out-of-doors in the Holy Land," Henry Van Dyke (Scrib.); "Asia," F. G. Carpenter (A. B. C.); "Asia," Chamberlain, "China and the Chinese," Giles, "When I Was a Boy in China," Lee (Mac.); "Life in Asia," Smith (Silver); "Stories of China," "Stories of India," Pratt (Ed. Pub.); "Persia; the Awakening East," Cresson (Lip.); "A Trip to the Orient," Jacob (Winston); "The Heart of the Orient," Shoemaker (Putnams); "The Jungle Book," "The Second Jungle Book," Rudyard Kipling (D. P.); "Lance of Kanana (a story of an Arab)" (Lothrop); *National Geographic Magazine*, May, 1908, January, 1913, May, 1913, June, 1913, February, 1914, December, 1920; *Asia* (Asia Publishing Co., New York City); *Journal of Geography*, October, 1918, January, 1919.

The Continent of Africa.—The continent of Africa is of vital interest to Europe because practically the entire continent has been divided among European powers, thus furnishing colonies as an outlet for their large numbers at home, as a market for their manufactured products, and as a source of raw materials. Great Britain, Belgium, France, Italy, and Portugal have divided Africa among themselves, Germany having lost her possessions since the World War. If these nations succeed in training the African negro to work and produce many articles of trade which

are needed in Europe, then enormous commerce will result to the mutual benefit of both Africans and Europeans and eventually to the development of Africa as a very important factor in the life of the world. In this event, the continent will be of great importance for geographical study, since the eyes of the civilized world will again be turned to Africa just as, centuries ago, there was intense interest manifested in northern Africa where one of the most ancient of civilizations existed and where the Pharaohs of old entered the life of Old Testament history.

In studying the continent of Africa at the present time, attention must necessarily be directed to its partition among European nations and its government by European powers. On the other hand, the study of Europe involves consideration of a continent made up of both large and small countries, practically all of which are now independent nations; the study of the Western Hemisphere embraces countries all of which are republics except Canada, which enjoys the same privileges as if it were one; and while the study of Asia directs attention to certain countries controlled by European nations, nevertheless the most important, like Japan and China, determine their own government.

In the case of other continents and countries, the independent countries could, most advantageously, be studied first; and then each country could be studied in relation to the continent as a whole. However, in the case of Africa the entire continent can best be studied first.

The suggestions of method which follow, indicate how the continent of Africa may be studied.

First, set up the main problem: What geographic conditions of a continent are conducive to trade and intercourse between nations on other continents? In the answer to this, bring out the significance of location and surface, rivers, climate, and people. Ideal geographic surroundings, it will be recalled, include abundant food resources, prosperous farmers, a stimulating climate, easy transportation, and opportunities for recreation.

In this study, be sure to consider: Why did the Europeans settle in the southern part of Africa? How is Africa divided among European nations?[12] If, in consideration of this question, the teacher has practically all of the reading matter and the pupils have little, projects could be assigned in the pursuit of which the pupils could indicate on an outline map the territorial changes and make notes of the principal points brought out in the teacher's readings and explanations.

Why is Cairo a great city? Why is Egypt so productive? Why is Africa of interest to tourists? Can Africa now be called the "dark continent"? What great names are associated with the story of Africa? What are the famous railways in Africa? What have European nations done to improve conditions in Africa? Why have they done these things? What is known as the "American penetration" into Africa, and when did it occur? These and dozens

[12] See "The New Partition of Africa," *Literary Digest*, May 14, 1921, p. 13.

of other problems could be presented. Numerous projects can be selected. Among these, a topical outline of Africa could be recorded, and the significant features (location, surface, rivers, climate, people) could be indicated; cotton and gold charts could be constructed; and a product map could be made.

REFERENCES

"Agriculture in the Tropics," Willis (Putnams); "Ocean and Inland Water Transportation," Johnson, "Story of Geographical Discovery," Jacobs (Appleton); "Climate," Ward (Putnams); "In Darkest Africa," "My Dark Companions," "How I Found Livingstone," Stanley; "The Last Frontier," Powell (Scrib.); "Man and His Markets," Lyde (Mac.); "Strange Peoples," Starr (Heath); "Present Day Egypt," Penfield (Cent.); "Africa" and other topics in the "World Book," O'Shea (World Book, Inc., 2126 Prairie Ave., Chicago, Ill.); "Wild Animals of Forest and Jungle," Lonnkrist (Winston); "Historical Geography of the British Colonies," Lucas (Oxford); "Some African Highways," Kirkland (Dana, Estes & Co., Boston); "The New Partition of Africa," pp. 12–13, *The Literary Digest*, May 14, 1921; *National Geographic Magazine*, June, 1913.

Australia and Islands of the Pacific.—The following problems are indicative of the procedure which may be employed in a study of Australia and the Islands of the Pacific. The main problem is, Australia, Argentina, and Canada may be said to cultivate the soil and raise the crops of the world: What is Australia's share in the work? What is New Zealand's? Other Islands' of the Pacific?

The minor problems are, How does Australia aid England? (Consider government, World War, etc.

It will be remembered that Australia and New Zealand attracted much attention during the World War because of the bravery displayed by their soldiers). Why has Australia attracted settlers? Australia has broad plains suited for grazing and pastures. Compare these in productivity, with similar parts in other countries. How are Australian goods marketed? Is Australia a young continent? What are the possibilities for growth and usefulness? New Zealand is called the "Newest England." Why? What is the value of the smaller islands of the Pacific to the nations which control them?

REFERENCES

"Australia, Our Colonies, and Other Islands of the Sea," F. G. Carpenter (A. B. C.); "Stories of Australasia," Pratt (Ed. Pub.); "Geography of Australasia," Taylor (Oxford); "The Real Australia," Buchanan (Jacobs); "Australia and New Zealand," Jose, (Mac.); "Picturesque New Zealand," Gooding (H. M.).

9. The continent of South America and a complete problem about Brazil.—*The continent of South America.*—No one who is informed, doubts the increasing importance of knowledge about South America and South American countries. The United States and the world at large are becoming more and more dependent upon these countries for the necessities of life. In a study of the countries of Europe our attention is directed to a high state of civilized society, and our geographical interest is chiefly centred upon it as a means of appreciation of what European people have contributed and are contribut-

ing to the world's needs. In America we are interested in our reciprocal relations with Europe.

South America is playing an increasingly important part in this respect; and we are beginning to appreciate the fact that we in America are more dependent upon South America than South America is upon us. In the light of solving the questions which this statement naturally presents, the study of the countries of South America can be made distinctly advantageous and illuminating.

Shifting values.—(See pp. 32-34). The rise in importance of South America is illustrative of shifting values in geography. At a glance, one sees that the material contained in school geographies about South America needs to be revised; up-to-date material needs to be secured.[13] In general, problems should be selected in accordance with the amount and kind of reading material which can be obtained. These problems which are suggested here do not require a large variety of reference material for their solution.

The main problem recommended for the study of the continent of South America is, Are we more dependent upon South America than South America is upon us? The minor problems which follow are suggestive of the kinds which would be serviceable in the study. Does South America supply the

[13] The Pan American Union, Washington, D. C., has considerable interesting and instructive material which can be used by teachers. General descriptive data about Panama, Ecuador, Nicaragua, Paraguay, Peru, Uruguay, Chile, Argentina, Bolivia and other countries are contained in a series of descriptive pamphlets.

United States with raw materials which no other part of the world can furnish? Compare North America with South America as to surface, size, climate, and rivers. What is Latin America? Could South American countries get elsewhere or produce practically everything the United States sells them? Is the United States more important to South America, industrially and financially, than is Europe? What are the interesting things in South America? Why would a trip to a coffee plantation be interesting? Why is there more commerce and trade carried on by the countries on the east than by those on the west? Will Argentina ever be to South America what the United States is to North America? Explain the growth of the largest city in South America—Buenos Aires. How does the Panama Canal aid South America? Show why Argentina, Canada, and Australia are the "farmers of the world."

In the study of each country, there will be found little difficulty, because of data which can easily be procured, in constructing problems which offer fields for advantageous study.

REFERENCES

"South America," pp. 366–421, Bryce (Mac.); "Brazil," Buley (Appleton); "South America," pp. 243–327, F. G. Carpenter (A. B. C.); "South America," Chamberlain (Mac.); "Our American Neighbors," pp. 222–249, Coe (Silver); "Amazing Argentina," Fraser (Funk); "Across Unknown South America," Landor (Little); "The Future of South America," Babson (Appleton); "World Almanac"; industrial pamphlets: *Rubber From Forest to Foot* (United States Rubber Co., New York City),

The Story of Rubber (Hood Rubber Co., Watertown, Mass.); *Rubber and Some Facts About It* (Firestone Tire and Rubber Co., Akron, Ohio), *Cocoa and Chocolate* (Walter Baker Co., Dorchester, Mass.), *Caoutchouc* (La Crosse Rubber Mills Co., La Crosse, Wisc.); *How We Affect Latin America's Daily Life, How Latin America Affects Our Daily Life,* Dangaix (Institute for Public Service, New York City); *National Geographic Magazine,* February, 1914; pamphlets published by the Pan American Union, Washington, D. C.; "Glimpses From the Tropical Jungle Where Rubber Grows," Maude Baker Morris, *Literary Digest,* January 17, 1920; *Inter-America*; maps: physical, political, economic, and desk outline maps; various standard encyclopædias for the history of South American countries.

A complete problem about Brazil.—The problem about Brazil which follows can be given in five lessons of forty minutes each. Full directions as to procedure, content, and problem development are contained in the instructions which follow.

The main problem is, Why can Brazil be called the young giant of the Western Hemisphere? Preparation for the solution of this problem should consist of specific reading and preparation by the teacher and the selection of references and material for the pupils.[14]

The problem is selected and reference material is provided not only to supplement the textbook, but also to provide motivation. Instead of following the textbook matter about Brazil, see that certain pupils read sections of the data that have been provided. Particularly significant selections, which the teacher desires to present to the class, can be written on the blackboard.

[14] For the references relating to this problem see above.

Besides dividing the class into groups, correlate the reading period with that of geography, or use the time ordinarily devoted to the subject of reading to the exercise of reading for information relative to the solution of the main problem. This not only affords more time, but it also gives motivation to the reading.

Make constant use of the blackboard.

Distribute the outline maps of South America and of the world. As the work develops, have the important products, places, and commercial routes filled in. Provide for review of important facts and the minimum essentials of place geography.

A brief history of Brazil may be had in the pamphlet of the Pan American Union, *Brazil*, pp. 4-12. If the teacher prefers, a short history could be prepared, mimeographed, and distributed to the class.

Next in order, comes the teacher's presentation. As civilization advances and population becomes more dense, the inhabitants of the temperate zones become necessarily more dependent upon the tropics for foodstuffs. Dr. Edwin E. Slosson, Literary Editor of the *Independent*, says: "No nation can call itself independent unless it has command of the seven C's: coffee, cacao, copra, cotton, cane, and caoutchouc."[15] (Dr. Slosson credits "caoutchouc" with two C's.)

Why does the United States need the "seven C's"? The United States uses much more coffee

[15] *Trade Expansion and National Independence.* Monographs of Efficiency, January, 1917. National Institute of Efficiency, New York City.

than any other country of the world and none is grown in the United States. Chocolate is made from cacao. We use large amounts of chocolate in many different ways. It is very nutritious. Copra is the dried meat of cocoanuts. From this there is obtained an oil which is changed into a solid, white, and wholesome fat used in margarine and other substitutes for butter and lard in cooking and table use. Nations must use substitutes of vegetable fats and oils for those of animals, in part or in whole, for reasons of both economy and health. For instance, it takes 100 pounds of food fed to hogs to produce only 11 pounds of hog meat.

Our sugar supply is less than half of what we need. Of cotton we have plenty, for we produce 60 per cent. of the world's supply. Caoutchouc, the last two "C's," or rubber, is obtained from the rubber tree. We use more than one half of the world's supply and produce very little. Rubber is most essential to the automobile industry, in which we excel, since we make 85 per cent. of the world's automobiles.

Are all nations dependent upon the "seven C's"? Is France? Italy? Germany? Compare their need of the "seven C's" with those of the United States. To what extent does this young giant, Brazil, help us in obtaining the "seven C's"?

After this presentation, other suggestions of method are necessary before the class sets to work on the problem.

Before dividing the class into groups, some of the names of rivers, cities, etc., which will be encountered

in the reading should be presented on the blackboard and provision made for pronunciation of them so as to guarantee smooth and fluent reading.

Make divisions of the class into, say, eight groups for a study of the material advised in the next part of the problem. These eight groups, in supervised study, would read from the reference material (and from the textbook) about (1) size and surface, (2) Rio de Janeiro and other cities, (3) rivers, (4) climate and vegetation, (5) agriculture, (6) minerals, (7) manufactures, and (8) the people, respectively. Each group is to be held responsible for its assignment. Limit the time for reading to, say, one half an hour.

Distribute copies of a brief history of Brazil. (See p. 201). Have all the pupils read this. Then distribute the reference books.

Be sure that note books are handy and that pencils are sharpened, ready for use.

Summarize, in class recitation, the results of the reading during the supervised study period. Pupils are to record the necessary data, under the teacher's direction, according to the sections of the outline which follow in the next part of the problem.

Supplementary information is to be given the pupils by the teacher. The oral reading suggested in this outline is based mainly upon Bryce's "South America."

The class, during the reading referred to above, should be given the problem, In what respects is Brazil a young giant? Let it be assumed that the

following is the result of the investigations of the class plus the information supplied by the teacher, and the class is ready to record the data.

Size.—Brazil is very large and richly endowed. In length from north to south it is 2,660 miles; in width, 2,700 miles. Its area, 3,301,350 square miles, is greater than that of the United States. The Atlantic coast line is 4,000 miles in length. The north coast is but little broken, but on the south coast good harbors are not wanting. (Read from Bryce's "South America," pp. 367–370; 404).

Rio de Janeiro (River of January) is the thirteenth city in size in the world and hence among the world's largest cities. (Read from Bryce's "South America," pp. 378–383; 415).

Rivers.—The rivers of Brazil possess a degree of importance greater than most other rivers of the world, since they are the chief, and in some cases, the only highways of travel and commerce through a region of great natural resources. Because of the copious rainfall and the mild climate, navigation of most of them is possible throughout the year.

More than two thirds of Brazil is drained by the Amazon and Tocantins rivers, and about one fourth by the Paraguay-Paraná system, while the remainder is drained by the São Francisco and smaller streams.

Climate.—Brazil is situated in a climate which makes possible a varied vegetation. In the greater part of the country, the climate is remarkably constant, with a fairly uniform temperature and with

heavy rainfall. (Read from Bryce's "South America," p. 384). In the great Amazon Valley, low and moist, densely forested, and subjected at all times to the sweep of the trades, the thermometer stands around ninety degrees. Most of the rain falls between January and June. (Read Bryce's "South America," pp. 405–406.)

Vegetation and Agriculture.—Brazil possesses many useful products. The vegetation is luxurious along the coast and especially in the lowlands of the Amazon. There are mangoes, cacao, dwarf palms, and Brazilwood. Most of the Amazon basin is a vast forest, stretching from the foot of the Andes to the sea. Here are found a great variety of palms and hardwood trees which surround many rubber trees. Pineapples, figs, bananas, guavas, grapes, and oranges are indigenous. European grapes, olives, and watermelons are grown.

On the southeast coast, within the tropics, rainfall is abundant, too, and the vegetation is profuse. Southward, in the temperate climate, the vegetation is like that of our own Southern States. (Place some of the names of the products mentioned above on the desk outline maps that have been provided.)

Minerals.—Brazil is one of the richest mineral-bearing countries in the world. The scarcity of population as well as of capital, and restrictive legislation tend to retard the development of these resources. (Compare the state of Minas Geraes with California or Pennsylvania). Lack of fuel and sufficient skilled labor prohibit the extensive manu-

facture of iron, lead, copper, zinc, and manganese. The coal found in Brazil is of inferior quality. Marble and building stones abound.

Manufactures.—While agriculture is the leading occupation in Brazil, manufactures are increasing in importance. These are taking a natural course of development; that is, those industries are making most progress which depend upon the native agricultural and mineral products of the country. For instance, the textile industry is important. Some woolen mills are situated at Rio de Janeiro, Minas Geraes, and São Paulo. Sugar refining goes on at Bahia and Pernambuco. Cigar making is important. Many other miscellaneous commodities are marketed as a result of smelting metals, assembling steam engines, tanning leather and working hides, manufacturing salt, straw hats, soap and candles, paper, calicoes, powder and dynamite, glass, and cotton-seed oil.

Summary.—Hence it can be said that, although essentially a tropical land, with heavy rainfall, high temperatures, and with vast forests over its equatorial portion, a large part of Brazil is an open country of elevated, rolling campos, with trees scattered about, suited to agriculture in the main, having many rivers, and with an agricultural, a grazing, and a mining future of great promise.

The major portion of the activities of the class is to be devoted to map study to determine how many of the "seven C's" one would find in Brazil.

Before this is undertaken, certain instructions are

necessary. Distribute to each member of the class one outline map of South America and one outline map of the world. The class as a whole, and not in groups, should be ready to follow the teacher in locating each one of the "seven C's." On the outline maps which have been provided, the "seven C's" should be placed. The proper notes should be recorded.

In response to the question, How many of the "seven C's," from our study of the map, have been found in Brazil? the following facts and questions should be recorded.

Cotton is found in Brazil. It is of excellent quality. What conditions are conducive to cotton production?

In 1890, Brazil raised and shipped 4,600,000 bags of coffee. In 1900, 11,000,000 bags were shipped. This was increased to 12,000,000 in 1912. This overproduction caused low prices; so low, that the government, realizing that the prosperity of Brazil, in the main, was dependent upon the income obtained from coffee, tried to put a stop to this overproduction. They did this (1) by taxing the overproduction of coffee intended for export; (2) by purchasing large quantities from the planters and destroying this coffee; and (3) by propaganda (advertising in the newspapers of the world) to create greater demand for coffee.

Coffee is produced in large quantities in Brazil, and especially in the states of Rio de Janeiro, Minas Geraes and São Paulo. Read selections from Bryce's "South America," pp. 387-388.

Cocoanut trees are grown successfully.

Sugar-cane grows in the Atlantic states of Brazil, especially in Bahia and Pernambuco.

In northeast Brazil, cacao is found.

Caoutchouc trees are found in great numbers, scattered among other trees in the forests of the Amazon. Grain, cattle, and horses are found in the southern states, especially Rio Grande do Sul. But these products are not all that are found in Brazil, for rice, bananas, and vegetables of many kinds grow there.

The next part of the problem is a class activity, and the commercial map of the world should be used for this part of the study. Some statistical information will, of necessity, have to be provided. This, as well as the minimum essentials of place geography, should be recorded in the note books.

How does the young giant hope to grow? Growth is assisted by improvement of facilities of transportation and communication. In 1912, Brazil had 14,338 miles of railroads. In the United States there are 266,000 miles, or 40 per cent. of the world's railroads. In Europe, there are 215,000 miles of railroads. But the rivers of Brazil, which are natural highways, help to make up for the lack of railroad mileage.

Ports are essential to the commercial expansion of countries, and extension of commerce will help Brazil to grow. Rio de Janeiro, the New York of Brazil, gets two fifths of Brazil's imports and ships one sixth of its products. Bahia, Pernambuco, and Parahyba

in the north, Santos, Paranagua, Desterro, Porto Alegre, and Rio Grande do Sul in the south, are the other principal cities.

Manufacturing enterprises are usually centered in cities. In addition to those mentioned above, São Paulo is a manufacturing center, a description of which may be found in bulletins of the Pan American Union and in Bryce's "South America," p. 374.

From the bulletins of the Pan American Union, much data about Brazil's commerce can be obtained. Although Brazil's commerce is greater than that of any other South American republic, this can be extended because the possibilities of exports are large. For instance, coffee, which means more to Brazil's prosperity than wheat or cotton means to the United States, is an article of commerce increasing in demand. The United States alone takes two thirds of the rubber supply of Brazil. In addition to these products, Brazil can extend her exportation of cotton, sugar, cacao, tobacco, Paraguay tea, Brazilwood, cabinet woods, and hides. By means of the Panama Canal, all of the western coast of both North and South America has become more accessible, and Brazil should profit by the volume of trade afforded by the canal.

The people who inhabit this extensive country, and to whom this possibility of development is offered, are of a different combination than the people of any other country in the world. The 25,000,000 people of Brazil are divided about as follows: one half are

white, one third are half-breeds, one seventh are negroes, and one tenth are savages.[16]

The minimum essentials of place geography should include the location of three ports of the Atlantic Coast; the naming of three large rivers of Brazil and their importance; the description of the surface of the country; and the location and importance of the principal cities.

10. A study of the United States by both topics and problems.—In section four, an elementary study of the United States (designed for younger pupils than the present study contemplates), which followed a like study of the sections of the country, was suggested. After this came the study of other continents and countries of the world. It should follow that this rather extensive work should be attended by growth in ability to study and in fluent reading. A more serious study of the United States should be presented to students when they have arrived at the point when they can appreciate, in much greater degree than before, the significance of our country in the world's affairs. It remains, then, to acquaint more mature pupils, who are better equipped in the art of studying, with a brief but thorough presentation of their country's strength, resources, and ability.

In previous studies, the pupils have secured some knowledge of the development of the several sections of the United States, because they have studied about

[16] Select passages from Bryce's "South America," pp. 404–410; 415–419. (Mac.)

the location, surface, climate, etc., which have affected this development. Miss Lydia R. Blaich tells how these things have contributed to the industrial development of the United States.[17]

With desk outline maps ready to be filled in with the names of products which are found in America, a number of investigations should be pursued. From a list of products of the United States, it must be determined where each product is found in greatest abundance or the important areas of the principal products; how these products reach the people who use them; what articles are manufactured from the principal raw products; and the cities and districts which are developed by these activities. In the process of classification of these products, the surface, climate, and other geographical factors must be taken into consideration, in order that intelligent location of them may follow. For instance, large areas of wheat would not likely be found upon mountains, nor timber on plains.

When the products of the United States which are agricultural have been classified and properly filled in on the outline maps, graphical illustrations of the proportion of each product contributed by the United States to the world's supply should find a ready place in the method of teaching. For instance, three fourths of the world's supply of corn is grown in America, one fourth of its wheat, and 60 per cent. of its cotton. The United States has a greater variety

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[17] "Three Industrial Nations," pp. 176–182. L. R. Blaich. (A. B. C.)

and abundance of fruits than any other country in the world. Vegetables and fruits are raised not only for domestic consumption, but also for exportation in the form of canned goods.[18] In mineral products, this graphical illustration is particularly illuminating, for our country supplies the world with 52 per cent. of its coal, 66 per cent. of its petroleum and oil, 40 per cent. of its iron, 60 per cent. of its copper, 25 per cent. of its gold, 40 per cent. of its silver, 40 per cent. of its lead, 50 per cent. of its zinc, 60 per cent. of its aluminum, and much of its salt. But, enormous and important as this wealth is to the United States, many authorities assert that the prosperity and success of the country depend primarily upon agriculture. To understand the productivity and possibilities of the country as a whole in this respect, the fundamental factors in agricultural development should receive great emphasis in this study: productive areas, areas made productive and how, physical factors affecting production, the people who till the soil and other related factors concerned with the land and the people.[19]

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[18] An interesting lesson in the concentration of the marketing of citrus fruits will be found in *Lessons in Community and National Life*, Series B, pp. 217–224. Bureau of Education, Department of the Interior, Washington, D. C.

"Market reports of fruits and vegetables." Based on material procured from the Bureau of Markets, Department of Agriculture. *Lessons in Community and National Life*, Series C, pp. 105–113.

[19] The fact that careful use of the soil is equally as important as production is contained in a lesson, "Saving the soil." E. R. Downing. *Lessons in Community and National Life*, Series B, pp. 41–48. Bureau of Education, Department of the Interior, Washington, D. C.

REFERENCES

"Three Industrial Nations," pp. 183–202, L. R. Blaich, "How the World Is Fed," F. G. Carpenter (A. B. C.); "How We Are Fed," Chamberlain (Mac.); "The World's Commercial Products," Freeman and Chandler (Ginn.); statistics from the "World Almanac," and from "Statistical Abstract of the United States" (U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.); see also Appendix B.

Stimulation of the activities of the class by raising problems should not be neglected. Interesting recitations result from a problem like, What is the world's most important agricultural product? or, What is the world's most important mineral?

Let the latter receive consideration for a moment. What should be the result of setting up such a problem? The values of various minerals will be discussed, and authorities quoted and statistics given. If the argument is conducted wisely, by the time the class has made its decision, only the organization of the contributions of the pupils will be left to the teacher. It might, however, be well to secure a collection of minerals (in your locality, if there are any), and find out the names of each. These should be labelled and arranged. By all means have ready specimens of different kinds of coal. What a story any one of these could tell!

REFERENCES

"Three Industrial Nations," pp. 274–285, L. R. Blaich (A. B. C.); "The Autobiography of a Piece of Coal," in "Wonders of Science," and "Diggers in the Earth," Tappan (H. M.);

"Notes on the History of Coal in the United States," *Scientific American Supplement*, March 4, 1916; "Making Dyes from Coal-tar," pp. 49–56, Series B, W. R. Maclind, "How Men Make Heat to Work," pp. 73–80, Series B, Franklin B. Jones, "Checking Waste in the Production and Use of Coal," pp. 49–56, Series C, Edith P. Parker, *Lessons in Community and National Life* (U. S. Bureau of Education, Washington, D. C.); "World Almanac" and "Statistical Abstract of the United States" (*see References above*); see also Appendix B.

To illustrate further the possibilities of a study of this kind, consider the problem, What is the world's most useful metal? After determining the answer, the class has for consideration a type study of iron. Minnesota produces the most iron. Pennsylvania manufactures the most iron goods. The formation of iron, how it is obtained from the earth, appearance, smelting, what is cast-iron and what is steel are all interesting topics. A lesson by J. Russell Smith, Professor of Industry, Wharton School of Finance and Commerce, University of Pennsylvania, aims to show how dependent modern forms of industry are upon the iron out of which all machinery is made. It also shows how the handling of iron has been developed on a vast scale through the use of power machinery.[20]

Of how much value are our forests? Are they worth protecting? To undertake to answer these questions, one must consider the distribution of

[20] "Iron and Steel." *Lessons in Community and National Life*, pp. 81–88, Bureau of Education, Department of the Interior, Washington, D. C. See also "Three Industrial Nations," pp. 257–273, L. R. Blaich (A. B. C.); "Stories of Industry," Chase and Clow (Ed. Pub.); "Story of Iron and Steel," Smith (Appleton); "The World's Commercial Products," Freeman and Chandler (Ginn); "World Almanac"; Appendix B.

forests, the industries fostered by them, and the waste that goes on in lumbering and manufacture.[21]

Preparation for making graphical the story of the importance of animals to our country—horses, cattle, swine, sheep, and also poultry—will lead to some interesting reading, chief of which may be mentioned the concentration of production in the meat packing industry.[22]

Industries resulting from fisheries occupied a large place in the early industrial life of the United States. Considerable attention is now paid to fishing among the North Atlantic, South Atlantic, and Gulf States. In addition, fisheries are found along the Pacific Coast, off Alaska, along the Great Lakes, and the rivers of the country.[23]

The large and important cities of the United States must receive specific treatment. A general directive problem, How have natural advantages aided in the development of each city? will be of service in the study. Other problems will help: Of the list of great cities in your geography, how many are seaports, lake ports, and inland cities? The concentration of population in cities and the development

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[21] "Industrial History of the United States," pp. 378–381; 399–400. Katharine Coman. (Mac.)

See also "Three Industrial Nations," pp. 214–222, L. R. Blaich (A. B. C.); standard commercial and industrial geographies; Appendix B.

[22] *Lessons in Community and National Life*, Series B, pp. 209–216, Bureau of Education, Department of the Interior, Washington, D. C.

See also "Three Industrial Nations," pp. 223–243, L. R. Blaich (A. B. C.); "The World's Commercial Products," Freeman and Chandler (Ginn); Appendix B.

[23] "Three Industrial Nations," pp. 244–256, L. R. Blaich (A. B. C.); standard commercial and industrial geographies; Appendix B.

of them have added many problems which form puzzling questions of government. What are some of them? Consider the cities of your home state in relation to the cities of the United States. How many does your state possess? Should it have more? Less? Why? How does a great city manage to secure food?

Commercial routes of trade necessarily form an important part of this treatment. (A full study of the foreign trade of the United States is suggested in Section 11, pp. 218-227). Hence, it is necessary to study, along with the products, the markets which are reached by these products. Both railways and waterways need incidental as well as specific treatment.[24]

REFERENCES

"Great Cities of the United States," Kramer and Southworth (Iroquois Publishing Company); "Three Industrial Nations," pp. 172–358, L. R. Blaich (A. B. C.); "Geographical and Commercial Studies," Allen (Ginn); "Elementary Economic Geography," Dryer (A. B. C.); "Commerce and Industry," R. J. Smith (Holt); "Longman's Gazetteer" or "Lippincott's Gazetteer"; see also Appendix B.

Statistical information can be both advantageously and attractively arranged. Tarr and McMurry present an attractive mode for recording statistics.[25] Ordinary tables and graphs, it is needless to say, are

[24] "Railway Conquest of the World," Talbot (Lip.); "Ocean and Inland Waterways," Johnson (Appleton).

[25] "New Geographies," Second Book, pp. 400–413. Tarr and McMurry (Mac.)

most familiar to those who are accustomed to scientific method. These can be readily applied to this study.

The minimum essentials of place geography should not be neglected. A ready description of the surface features of the United States should be in possession of every pupil. It should be easy to tell the salient facts about the principal mountain ranges, the highest mountain peaks, certain principal cities, certain important rivers, etc., as well as to give names and location. The pupils should also be able to appreciate the values of the largest rivers, to trace the principal routes of trade, to place accurately the important cities; and, above all, to locate with precision, because they understand the underlying factors of production, the areas occupied by the chief natural resources of the United States.

Proper methods of study having been pursued, accurate and sufficient details having been presented, many questions and problems which have not been anticipated will undoubtedly be produced by the pupils themselves. Among these, the following might be suggested: With a list of our principal natural resources, compare a list of products which are necessary to our everyday life. How many do we produce? What are the sources of those which we do not produce? What are the important articles "made in the U. S. A.," which you think should be advertised to the world? How many are well advertised? New Orleans ranks second in foreign trade. Explain this. Why is Chicago the largest

railroad center in the world? Why is Minneapolis the greatest milling center of the world? Explain the fact that Buffalo ranks second in the flour industry. How has the possession of Alaska proved profitable to the United States? Why is Los Angeles the fruit port of the Pacific? Why does such interest center around the Chesapeake Bay?

11. A study of the foreign trade of the United States.—The foreign trade of the United States is a subject of importance and forms a large part of the deliberations of important bodies of business men. The study is also important for geographical consideration, because it involves the study of the exchange of products between the United States and other countries of the world and hence, of the relative importance of the United States and other countries as producers of commodities for world consumption. It is therefore necessary, in order that this study may be successful, to supply for the use of the class physical and political maps of Europe, Africa, South America, Asia, and the World. Maps of commerce and trade should also be at the disposal of the pupils. The use of a large globe is advantageous. Reference books, including a number of different school geography textbooks, geographical readers, some good commercial and industrial geographies and readers on industry and commerce, the *World Almanac and Encyclopædia*, etc., and other material from which statistical information can be obtained, (See Appendix B), should be generously applied. Current

magazines and newspapers with articles which relate to the subject, should also be provided.

For projects, desk outline maps of the United States, Asia, Africa, South America, and the World might also be used. Assembling and classifying information relating to the several topics which follow, also offer opportunity for doing effective work.

Our trade in the Western Hemisphere.—Not only do trade relations exist between Canada, South America, and the United States, but the West Indies, Mexico, and Central America exchange commodities with the United States. To these latter places, agricultural and mining machinery, textiles and clothing, foodstuffs and drugs are exported. The important exports of these countries to the United States, as well as the chief ports for shipment and the trade routes, should be ascertained.[26]

The following problems will help the pupils in the study of the trade relations of the United States with the West Indies, Mexico, and Central America: Why was the purchase of the Danish West Indies important to the United States? (*Geographical Review*, November, 1917, pp. 359-373). Why is Cuba the "Pearl of the Antilles"? (*National Geographic Magazine*, October, 1906, p. 535.) What conditions are needed to make Mexico a progressive country? Why have not the Central American countries been more prominent in world affairs? How is the Panama Canal important to world trade?

[26] In this connection, pamphlets of the Pan American Union, Washington, D. C., will be serviceable.

How are we dependent upon countries of the Caribbean Sea?

Canadian products are used in the United States, and America supplies Canada with many articles. How much trade do we carry on with Canada? To what degree is Canada dependent upon the United States for supplying her needs?

Our trade with South America.—Does South America need our commercial products more than we need those of South America? To this main problem, add the following minor problems: What does South America produce without which we could not thrive? Could South America produce or get elsewhere everything we want to sell her? Is the United States more important to South America, commercially and industrially, than to Europe? Are the character and extent of our trade with South American countries appreciated by the people of America? To what extent are articles "made in the U. S. A." used in South American countries? Will Argentina ever be to South America what the United States is to North America? Do you expect South America to grow? Why? What is Latin America? Develop the reciprocal service of Chile in sending nitrate to us and getting foodstuffs from us. What is the influence of the Monroe Doctrine? What has been the influence of the A. B. C. conferences? [27]

In the development of the problems, the position of

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[27] In pursuit of the study suggested above, the literature of the Pan American Union, Washington, D. C., and pamphlets of the Institute of Public Service, New York City, are recommended. See references, p. 200.

South America for trade with the United States and European countries, harbors, winds, and ocean currents which affect commerce, should be brought out.

The commercial grouping of South American States which is generally accepted is based upon the surface features and climate of the continent: (1) the Andean countries—Chili, Peru, Bolivia, Colombia, and Ecuador; (2) the tropical countries—Brazil, Venezuela, Guiana, and Paraguay; and (3) the temperate countries—Argentine and Uruguay.

It has well been said that the world is no longer a place where any race of men can live in isolated existence and still rank in the forefront of civilized peoples. The races of people—Red, European, and Black—in South America and their consequent needs, whether civilized or savage, are important because upon this distribution depend not only how great the demand for goods will be, but also the extent of prosperity and hence the ability to purchase goods.

The leading exports of South American countries must necessarily receive consideration: (1) mineral products—silver, copper, tin, nitrates, and emerald; (2) animal products; and (3) agricultural and forest products—sugar, coffee, wheat, cacao, ivory, nuts, rubber, dye woods, quebracho, and cabinet woods. Not only the leading exports, but also the sources, ports of shipment, and ocean routes must necessarily receive attention.

How many things South America needs, and how various they are, can be seen from the following list, which is by no means exhaustive: railway supplies,

agricultural machinery, manufactured textiles, hardware and ships' stores, flour, coal, petroleum products, soft woods, industrial machinery for power and lights, foodstuffs, fish, dynamite and powder for blasting, musical instruments, labor-saving devices, and the machete.

Our trade with Europe.—Transportation and communication across oceans are now so general that all modern nations are closely related. When the population of one country suffers from pestilence caused by the lack of food and the loss of vitality, this crosses into other lands and disease is spread broadcast. In like manner, when financial or industrial disaster occurs in one nation, all others are likely to suffer.

One naturally expects the eastern coast of the United States, because of its many advantages, to carry on an enormous amount of foreign trade. As a matter of fact, practically 85 per cent. of our foreign trade is maintained by the Atlantic Coast in connection with transatlantic countries.

What conditions have led to the great volume of trade between European countries and the United States? Before this situation can be discussed intelligently, it is necessary that several matters relating to the subject be reviewed.

In the first place, the comparative nearness of European ports to our great Atlantic seaboard has helped to encourage trade relations. To locate New York, Baltimore, Norfolk, Philadelphia, Boston, Liverpool, Havre, London, Antwerp, Hamburg,

Naples, and Marseilles, and the approximate transatlantic distances will assist in impressing this fact.

The facts established by a comparison of the size and population of Europe with the United States and by consideration of the climate and the topographic conditions of the two; the need of foodstuffs by the dense population of Europe, the central plains of America forming "the granary of the world"; the existence of that great subtropical fruit belt in southern Europe, and dozens of other facts, reveal the necessity for trade relations between Europe and America. When to these are added studies about the industries—the raw materials and manufacturing interests of Great Britain, France, Russia, the United States and other countries—and knowledge of European immigration to the United States, they but emphasize the conviction that the reciprocal needs of the United States and European countries must continue to be supplied by the interchange of commodities.

In order to gain adequate information of the conditions under which trade is carried on, the necessity of finding out the chief products which are exchanged between the United States and European countries, as a result of the above conditions, is obvious. In locating the sources, shipping ports, and distributing centers of products in the United States and in Europe, export and import trade receives consideration. In similar fashion, one must become acquainted with the leading steamship lines and the trade routes followed.

The study of our commerce with Europe, then, involves consideration of (1) the comparative nearness of European ports to our great Atlantic seaboard; (2) comparison of size and population; (3) climatic and topographic conditions; (4) industries; and, (5) the chief products exchanged between the United States and European countries.

Our trade with Asiatic countries.—The continent of Asia, containing two thirds of the earth's population, and land which is enormously rich in untapped natural resources, is undoubtedly the greatest potential producing and consuming land in the world. Our present trade with Asia and Oceanica amounts to more than two billion dollars annually, and yet we command but a small part of Asia's trade. Since there is a growing demand for American-made machinery and other American products in Asia, especially among the four hundred million people of China, it is predicted that the trade between the United States and the Orient will rapidly increase.

Japan, the most progressive of Asiatic countries, is yearly rising to a greater degree of prominence in securing Chinese trade. On account of this competition, in addition to the desire to increase our trade with the Orient, a large part of the merchant marine of the United States will undoubtedly be placed in the Pacific.

The Pacific coast lies opposite Asia, and it is natural to assume that this section of the United States must, in the main, attend to this great business of Oriental trade. Favored with a number of great,

natural harbors, possessing extremely productive soil, blessed with mineral wealth, backed by a hinterland of increasing fertility and managed by intelligent farmers, capable of receiving thousands of products via the Panama Canal, and with many other advantages, the Pacific coast looks out toward the richest potential agricultural and mineral-producing regions of the world—the vast Orient. The Trans-Siberian Railway opens up in Siberia, China, and Manchuria the possibilities of a greater wheat-producing area than lies in the Pacific coast hinterland. Butter, beef, hides, beans, and many other products have been continually transported by this railroad.

So it is that, in all probability, the eastern and older coast of the United States will gaze in amazement, and at the same time with pride, at the growth in trade of the newer, western coast.

The United States Department of Agriculture, in a report on peanut trade, said, "The nominal quotations on September 10 (1920) were from six to nine cents per pound, but there was no demand. The department has peanuts of its own in storage at Florence, S. C., which it would like to sell, but cannot. The market is swamped with Oriental peanuts at the ports. Only this morning there were sent to us from the Department of Commerce, samples of Oriental peanuts which show conclusively that the Orientals have sent to this country and got our best seed. The industry is ruined unless there is prohibition of imports or the imposition of a heavy tariff, and the

eighteen years of work done by this department will have been thrown away." What would be the effect of a tariff protecting the peanut industry of this country?

The Japanese are particularly active in trading in peanuts, and this illustration serves to acquaint one with the growing importance of Japan in world trade. Considerable popular interest has been aroused in Japanese activities in bringing the question of racial equality before the League of Nations as well by the fact that a stout fight against the Californian land laws has been carried to the United States Supreme Court by the Japanese.

In a study of our trade relations with Japan, it would be well to consider the problems: Why is Japan a power in the Pacific? What effect has American influence upon Japan? and, What effect has Japanese influence upon America? Before these matters can be discussed intelligently, it is necessary to consider Japan's position with regard to Asia, Europe, and North America, her harbors, her agricultural, mineral, and forest resources and her people, old and new. It goes without saying that one must determine the products exchanged with the United States and the leading ports of commerce between the two countries.[28]

In the study of our trade relations with China, the problems: Why has China not progressed as rapidly as Japan? and, What American interests are established in China? will call for study of the extent of

[28] See Appendix B, p. 281. Special reports.

the country, its government, its people, and its resources—mineral, agricultural, forest, etc. To complete the study, it is necessary to determine the products which are exchanged between the United States and China and the leading ports involved in the trade.

In the solution of the problem, Are the Philippines a valuable possession of the United States? be sure to consider the following: location, resources, races of people, Spanish occupation, intervention of the United States, imports, exports, and trade routes.

There are many government publications which are available for the above studies. One can obtain a list of the bulletins of any and all bureaus of the government by writing to the Superintendent of Public Documents, Washington, D. C., for a monthly list of government publications. While the great majority of these documents are issued free, some of them must be purchased. For specific treatment of the above studies, the material issued by the Bureau of Foreign and Domestic Commerce should be secured. The State Department issues consular reports, which contain valuable and instructive articles about foreign industries and trade. Address a letter to that department and have your name placed on the mailing list.

REFERENCES

"Three Industrial Nations," L. R. Blaich (A. B. C.); "Industry and Trade," Bishop and Keller (Ginn); "World Almanac"; "Principles of Human Geography," Huntington and Cushing (Wiley); "Handbook of Commercial Geography," G. G. Chis-

holm (Longmans); selections from commercial geographies and geographical readers; newspapers and magazines; see also Appendix B, and references at end of Chapter V, pp. 97-98.

12. A study of the British Empire by both topics and problems.—In the study of the British Empire, no attempt is made to present the details of the problem: Why is Great Britain a great industrial nation and how does she maintain supremacy in commerce? However, in the following brief outline certain significant features are pointed out.

The influences under which Great Britain has risen to a position of supreme importance in world trade should be recounted. The physical conditions, which are among these influences, include the location of Great Britain, the small area of the British Isles, and the climate—winds, rainfall, ocean currents, altitudes, waters which border the country, etc. In connection with climate, let it be remembered that a nation's supply of food may be seriously affected by climatic conditions or the ability of a section to engage successfully in the textile industry may be affected by lack of moisture in the atmosphere, but the output of a mineral, like coal, receives very little hindrance from storms, heat or cold, because the workers are below the surface affected by climatic conditions. The natural advantages or industrial conditions, also among these influences, embrace the presence of minerals, forests, water power, nearness to the sea (no place being more than 70 miles from the coast), and topographical conditions favorable

to the development of large industrial centers—London, Liverpool, Manchester, Glasgow, etc. On the other hand, the disadvantages include lack of raw materials—foodstuffs, textiles, sufficient minerals (iron, nickel, copper), scattered sources of supplies of raw materials (very evident when one traces the sources of these supplies), lack of local oil fields, and a rather unfair system of property control—large, landed estates and unfair taxation.

Great Britain has deliberately overcome some of the disadvantages mentioned above. Although lacking certain minerals, her world power has been built chiefly on production and trade in coal. And her power must continue to rest upon this basic industry. Oil might be considered the rival of coal until one knows that the world's annual production of coal is about one and a half billion tons and only eighty-five million tons of petroleum. This would seem to indicate that petroleum is not likely to take the place of coal as the world's principal source of light and heat. Hence, Great Britain's principal sponsor in world commerce will continue to help her maintain her high position.

Government conditions play a large part in forcing Great Britain to the top in industry and trade. Not only the form of government, but also the intelligent, industrious, and enterprising people who maintain this government, help to guarantee to Great Britain an important position in the industrial progress of the world, and help to maintain her in that position. The Britishers, through long training in commerce,

have learned how to play the game in accordance with wise, recognized principles.

Consider, for example, the way business is done at the port of London. This great port receives cotton, wool, rubber, ivory, mahogany, hemp, sugar, jute, coffee, wheat, and a hundred other commodities from all over the world. Numerous kinds of raw material can be shipped unsold to London and remain there, like commodities in a large city market, awaiting the purchases of the nations of the world. Representatives of all nations are anxious to buy cotton, wool, wheat, coffee, ivory, and rubber in the London market because not only is it a central market, but it is also advantageous to purchase goods there. In the first place, London merchants guarantee the quality of the goods. In the second place, because of the network of ocean steamers radiating from England, the buyer is sure of quick delivery of his goods. And, finally, cheap freight rates are maintained from England to the rest of the world. The reason for this is that vessels which sail to England loaded with foodstuffs and raw material prefer return cargoes rather than empty space. Consequently, steamship lines which are outbound offer low, attractive freight rates.

Great Britain has striven to offset her disadvantages in another way. She is the owner of the world's greatest colonial empire. It is said that the sun never sets upon her dominions, for she holds Canada, Australia, New Zealand, India, possessions in Africa, Jamaica, and other possessions in the

Western Hemisphere. Her government of these possessions is wise and beneficent. Nor has Great Britain failed to provide strategic points of defence and commerce. Long ago she secured the mighty Gibraltar, at the western entrance of the Mediterranean Sea. Malta, Suez, Aden, Singapore, Hongkong, St. Helena, Bermuda, and the Falkland Islands in the Southern Pacific fly the British flag.

Great Britain's naval power has been attained with great expense and with much sacrifice. However, with her resources of coal, iron, and lumber, by means of skilled, intelligent labor, by means of her harbors, and by means of the united backing of the nation in the enterprise, Great Britain is the first naval power among the nations of the world. This navy protects a huge merchant marine, and the two together are extremely busy in world trade and in the development of British colonial possessions.

In teaching Great Britain, the owner of the world's greatest colonial empire, use the following problems.

The colonial possessions of Great Britain are valuable for defence, for the development of industry, for extensive trade, and for the raising of food supplies. Why must Great Britain remain one of the great maritime powers of the world?

Why is Canada necessary to the British Empire? Consider Canada as a source of food supplies, of lumber, of revenue, and of minerals. Why is Canada, a country of great resources, and the home of a young, sturdy race of people, contented to remain a British possession?

In what respects has Great Britain helped to make India one of her most important dependencies? Consider government, industrial development, health and sanitation, and products.

Why are the resources of Australia and New Zealand especially valuable to Great Britain? Emphasize the fact that, because of the position of these possessions, the products differ from those of possessions situated in other zones and are ready for the market at opposite seasons.

Why was Great Britain anxious to gain full control of Egypt? Bring out the fact that, besides the cotton, rice, and wheat which she secured, the ownership of Egypt is important because of the control of the Suez Canal, of the Mediterranean and southwest Asia.

What will the "Cape-to-Cairo" railroad mean to Great Britain? Transportation facilities are especially important for the development of the African colonies, for Great Britain's holdings are not only extensive but they are also scattered. They include British East Africa, South Africa, British Egyptian Sudan, possessions along the west coast and Zanzibar. Again, the completion of this railroad will help Great Britain in the perfection of her federal idea of government, especially in the remote British South Africa as well as in Egypt. It will also assist by providing means of defence against any possible incursion of Turkish forces to Africa.

What men have been most important in extending

British influence in Africa? Consider David Livingston, Cecil Rhodes, and Lord Kitchener.

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13. The Home State; Germany and France in world commerce.—*An intensive study of the home state.*—If geography serves to foster patriotism through the study of the country in sections, political or regional, and as a whole, it must no less serve to create in pupils pride in the achievements of their home state. In order that the latter objective may be made effective, an intensive study of this sort should be postponed until pupils have been trained to study, for then they will be ready to collect data about their state and to arrange this material most effectively. Good citizenship demands that one not only get the best knowledge he can, but also that one apply this knowledge to his social, economic, religious, and moral environments. The most effective citizens are those who think and act in terms of accurate facts about their state and their country, and hence about the particular locality in which they live. Therefore, teachers and school officials should exercise particular care to see to it that the course of study makes provision not only for the study of the

home state, but also for sufficient literature and up-to-date material about the state's history, economic and geographical advantages, and other material which will stimulate pupils not only to solve particular problems, but also to create in them the keen desire to keep informed about the state's achievements and its importance to them, the United States, and the world at large.

The previous sections will have provided the method of going about this sort of study efficiently.

Germany in world commerce.—Why was Germany one of the world's greatest powers before the World War?

Industrially, Germany became one of the foremost of nations. Because of extensive agricultural territory, a favorable climate, and sunny harvest seasons, Germany is well favored by nature. The leading crops consisted of potatoes, rye, oats, barley, wheat, and sugar-beets. Nine tenths of Germany's land is productive. The government, ambitious for effective development, had applied science to the conduct of farming. By means of crop rotation and the adoption of the world's best methods of cultivating the soil, production of staple crops in huge quantities resulted.

Although Germany's agricultural policy was excellent and produced expected results, her population, growing at the rate of a million a year, forced large numbers to engage in manufacturing enterprises. As combines or big business concerns grew, the Imperial government assisted many of them. Consequently, it was not long before the German Empire began to

4. A Class Project

THE FOUR CHARTS, SHOWING ARTICLES OF TRADE BETWEEN LATIN AMERICA AND THE UNITED STATES, WERE PROPOSED, PLANNED, AND CONSTRUCTED BY THE PUPILS. EACH PUPIL ENTHUSIASTICALLY CONTRIBUTED ONE OR MORE ARTICLES

produce toys, munitions, iron and steel goods, dyes, chemicals, sugar, textiles, electrical supplies, and many other articles.

Nature assisted the efforts of the people. The location of Germany, her surface, her climate, soils, minerals, forests, and waterways offered to them rich opportunities for diversified industries.

The forests of Germany, in particular, which cover one fourth of the area, yielded lumber for ship building, toys, and musical instruments, to mention a few articles. Realizing the importance of this asset, Germany instituted a policy of protection to her forests; and it was not long before she became famous over the world for the thrift and excellence of her forest conservation. It is generally predicted that the United States must eventually adopt some broad policy of government conservation or else timber resources in America will be depleted by private interests.

Germany was one of the richest countries in the world in the value of mineral products. In one third of her area are located coal, iron, salt, potash, and other minerals. These formed the basis for modern Germany's industrial development.

Animal husbandry played an important part in Germany's industrial success. Swine, horses, dairy cattle, and sheep were raised in great numbers. Fishing was a considerable industry.

With her fields productive and tilled by thrifty farmers; with her mills manufacturing finished articles from her natural resources and imported

material; and with a government ambitious for world power, Germany naturally reached out for a large share of the world's commerce. Commercially, she developed into one of the leading nations of the world. She first saw to it that transportation within Germany was perfected. Huge amounts were spent on railroads; fifteen hundred miles of canals were built; and the rivers were improved. Her coal, iron, and timber resources furnished abundant material for ship building. The Weser, Elbe, and Oder rivers have estuaries, or drowned mouths, which afford ocean-going vessels the opportunity of sailing far inland. Bremen, Hamburg, and Stettin are situated at the heads of estuaries.

But Germany did not possess all the products she needed. Cotton, wool, silk, flax, nitrates, rubber, wheat, hides, skins, eggs, butter, petroleum, copper, and other commodities were necessary for her supremacy. Besides, her population was not only large but increasing rapidly, and land was at a premium. Emigrants from Germany had been leaving to take up farming, to engage in business and to follow manufacturing pursuits and banking in other lands. So Germany began to look for colonies, and since 1884 she had secured Togoland, the Kameruns, German East and German Southwest Africa; Kiao-Chau Bay in Asia, Kaiser Wilhelm's Land and islands in the Pacific and possessions in Samoa—in all 1,027,120 square miles with an estimated population of fifteen millions.[29]

[29] Great Britain's colonies and dependencies are estimated at 11,770,000 square miles and their population at 388,000,000.

Germany built up an extensive foreign commerce. She began to import those things she needed and to export cloth and clothing, iron and steel goods, machinery and musical instruments, leather goods, sugar, dyes, chemical products, books, maps, and dozens of other articles. To South America, Russia, Great Britain, the United States, Asiatic countries and to all parts of the globe, Germany's ships plied their trade. South America's trade was particularly important to Germany. She, therefore, established a liberal colonization policy, encouraged her best salesmen to stimulate the sale of German goods, maintained a high order of consular service, and wise banking policies with South American countries. Germany's local transportation and docking facilities—her canals, boats, ports, wharves, and railroads—soon became laden with goods from South America not only for consumption in Germany but for distribution in Europe.

The history of the rise of Germany as an international power is as brief as it is startling. Gifted men—composers, educators, and military leaders—sought in every way to assist Germany in her efforts to become a great nation. Educational institutions of great renown were attended by students from all over the world. A fervid patriotism and well laid plans for world power—educational, military, and economic—existed everywhere, reaching their climax in the time of Bismarck and leading finally to the World War of 1914.

The above outline of Germany's rise to a high

position among the world powers serves to cause one to consider why Germany embroiled the civilized world in war.

The geography of Germany, in part, helps to explain this. With immense wealth, with extensive commerce on the high seas and by land, but with an area of 208,830 square miles and with a population of 56,000,000 before the World War; with science applied to the limit to her soil and industries; with insufficient colonies; with Great Britain in control of the North Sea and with unsatisfactory Baltic opportunities—all these caused discontent. In addition, Germany felt that her people were superior to those of all other nations and hence she was entitled to rule the world. She deliberately set out to control the world in order to satisfy her felt needs as well as to satisfy herself that she only was capable of governing the world.

Once involved in war, how did Germany hope to feed her people, get supplies and win the war?

Germany had counted upon her ability to gain complete control of American trade. By the invasion of Belgium and northern France, she hoped to secure and maintain the seaports of these nations. This would give her control of the North Sea and give her the much desired direct Atlantic outlet, all of which would give her a firmer grasp upon western trade. By the immediate invasion of Russia and Roumania, she was able to obtain huge supplies of food. By draining the Austro-Hungarian people of their resources, she added to her stock of materials

for maintaining her army. Germany through control of all central Europe longed for the possession of Asiatic trade.

Her intense desire for markets in an easterly direction led to the dream of the Berlin-to-Bagdad Railway, leading through a favored territory and terminating in a region full of rich possibilities. Her peculiar diplomacy started plots among the Indians, spread German propaganda in America and Mexico, and gained Mohammedan sympathy. Finally, by speeding up her own industries and by making a supreme effort in every direction in the German fatherland, she hoped to win the war.

History supplies the rest of the story of the people who thus designed to gain control of the world. Dominated by a militaristic class who were satisfied with autocratic government and who desired to extend German influence over the entire world, all classes of people were caught in their net. The thrifty on the farms, the industrious and skilled workers in the mills, the scholars in the universities—all were taught that unless Germany gained more by war she was being wronged by the world. German plots became notorious, deception was practised by Germans well nigh everywhere, and, out of it all, Germany reaped the whirlwind and now finds herself with an area of approximately 175,000 square miles and with 50,000,000 people—her colonies gone, Alsace and Lorraine in the hands of France, and her dreams, for the time being, shattered. Surely Germany has chased the rainbow.

Trace the proposed Berlin-to-Bagdad Railway and show how important this land route would have been to a victorious Germany. If Germany had been successful in getting and holding northern France, what advantages would she have obtained for carrying on war? If Germany's territory extended over northern France and her northern coastline also included Belgium, how much more powerful, commercially, could Germany become?

France in world commerce.—The very territory which France possesses—that northern portion, in particular, which Germany wanted so much—gives France a superior position for ocean trade. Why, then, has France occupied an inferior position, in modern times, as a commercial power to that of Germany? This problem is presented for study by giving a series of minor problems and an outline, both of which should be developed in the classroom by the usual method of reading and discussion.

Main Problem

France has a superior position for ocean trade. Why has she occupied an inferior position as a commercial power to that of Germany?

Minor Problems

1. Why is it that the French are noted for their beautiful and artistic products? Compare the products of France with those of Germany and England.
2. Are the boundaries of France favorable or

unfavorable? Compare with those of Germany, Spain.

3. Show that France's surface and shape is favorable to the maintenance of one government, rather than small, separate, and distinct states.
4. Show that France's surface and shape is favorable to domestic trade.
5. What noted highways extend across northern France?
6. In what ways has the situation of France been favorable to its development?
7. What were the early advantages of France as an industrial nation?
8. Until comparatively recently, France has done little colonizing. Account for this.
9. Has France been successful in handling her colonies? Has France been successful with her African possessions?

DEVELOPMENT

I. The character of the people.
   1. They are patriotic. Contrast this form of patriotism with that of Germany.
   2. The people are contented at home, not seeking world power.
   3. The people are republican in spirit. Contrast the form of government with that of Germany. Cordial relations exist between the United States and France (LaFayette).
   4. The people are pleasure loving and artistic.

Compare the life of the peasant with that of the Parisienne.

5. Eminent Frenchmen visited the United States during and since the World War.

II. The physical characteristics of the country.
1. There is a mountain barrier to continental Europe.
2. Character of the seacoast.
3. Trend of the rivers.
4. Plains.

III. Domestic trade.
1. Rivers radiate from center.
2. Canal system.
3. Railroads.
4. National highways.

IV. Industrial characteristics of France.
1. Agriculture is the most important industry. Why? Consider: climate—temperate and subtropical; surface—plains, mountains, varied and fertile soil; people—character, agricultural education; farms—size, ownership, and intensive cultivation; products—wheat, flax, silk, vineyards, flowers, beets, etc.
2. France manufactures luxuries rather than necessities.
   A. Silks, wines, gloves, perfumes, jewelry, china, etc.

Why does the world desire French manufactured products?

3. Minerals. Scattered and deep seated.
   A. Iron, coal, kaolin, and sand.
   What did the return of Alsace-Lorraine mean to France?

V. Colonies. Locate the principal colonies and show the increasing importance of these possessions to the development of France.

VI. Trade routes accessible to France.

VII. Distributing centers.

Why is Paris one of the largest cities in the world?

1. Location. Island on the Seine, which is a navigable river with a slow current.
2. Hinterland. Advantages.
3. Agricultural resources.
4. Access to sea and inland country. Canals, rivers, etc.
5. Art center.
6. Beauty of the city. City planning.
7. Attractive to tourists.

Minimum requirements—Seine, Rhone, Paris, Marseilles, Bordeaux, Lille, Lyons, bordering sea, etc.

CHAPTER II

SOME NEW COUNTRIES OF EUROPE[1]

LITHUANIA

History.—Long ago, three groups of the Indo-European family of languages moved westward from the plateau of Iran. They settled on the shores of the Baltic Sea, between the Vistula and the Salis rivers. These people, known as the Old Prussians, the Letts and the Lithuanians are now believed to have lived in this region many years before either the Teutons or the Slavs came. During the Middle Ages (1226-1281) the Order of Teutonic Knights, a German people, fond of fighting, tried to spread, at the point of the sword, Christianity. This order gained possession of the southern portion of the region, which was then occupied by the Old Prussians. The Teutonic Knights and the Old Prussians joined hands and laid the foundations of modern Prussia and its junkers, responsible for the World War.

Later this order attacked the people who lived in the north—some of the Lithuanians. The main branch of these people, however, occupied the valley

[1] For references see numerous articles on these countries in newspapers and magazines; statistical information can be secured from the "World Almanac," etc.

of the Niemen River. They were not molested by the Order until the middle of the thirteenth century. All of these people were pagans. The Greek Orthodox Christians, the Roman Catholic Poles, and other religious orders undertook crusades against Lithuania until they accepted the Christian faith.

After this there was a great Tartar invasion led by Genghis Khan, which swept over central and western Europe and the southern parts of Russia. The Ukrainians, who lived in southern Russia, and other peoples thereabouts, put themselves under the protection of the Lithuanians to fight Genghis Khan. They checked the invader on the Volga River and the Sea of Azov. It was then that Lithuania ruled all that vast territory, which extends from the Baltic to the Black Sea, between the Ugra River in the east and the Narva and Bug rivers in the west, for a period of two hundred and fifty years. It is said that the Lithuanians were benevolent rulers, allowing the people considerable freedom of thought, speech, and action.

At one time, Lithuania joined with another country to the west, Poland, thus forming a dual monarchy, like old Austria-Hungary before the war of 1914. This union did not help either nation.

At the time that our Revolutionary War was being fought the Lithuanians were attacked by Austria, Prussia, and Russia. The country was overrun and divided among these nations. From that time until the close of the World War they were ruled with the utmost severity by their conquerors.

It is said that Austria, Russia, and Prussia attempted to destroy the language, the institutions, and the national hopes of the Lithuanians. During this period, many Lithuanians and Poles emigrated to foreign countries, because they wanted to escape the many cruelties which were heaped upon them. Those who did not leave Lithuania and Poland continued to speak their own language and cherished hopes of a time when they would be set free.

It is reported that from the beginning of the World War many of the young men of Lithuania deserted to the Allied armies. Upon the defeat of the Central Empires in 1918, Lithuania, Poland, and Latvia were recognized and restored by the Allied and Associated Powers to their rightful portion of free, sovereign, and independent nations.

Geography.—Lithuania's boundaries, as recommended to the Supreme Council of the Peace Conference at Versailles, does not comprise all the area of former times, but it has been reorganized upon what is known as the "principle of nationality." Only portions of old Lithuania, in which the population is pure Lithuanian, are set apart as a separate nation. Those parts thoroughly Germanized or Russianized have been left to those nations. Its boundaries now are the Baltic Sea on the west; East Prussia and Poland on the south; on the north, Latvia, and on the east, probably, Russia.

The soil of Lithuania is largely alluvial, very fertile, and well adapted to agriculture and cattle raising.

The climate, being tempered by the prevailing winds which come from the sea, is moderate. The leading agricultural products are rye, oats, barley, potatoes, wheat, peas, flax, and fruits (apples, cherries, and berries). Fine grades of cattle, horses, pigs, sheep, and fowl are raised, with great profit to the owners. In recent years dairying has become an important industry.

Ever since ancient times Lithuania has been famous for her forests of pine, oak, birch, ash, maple, and linden.

This country is not rich in minerals and hence is not naturally adapted to extensive manufacturing. For fuel, peat is chiefly used, although coal is imported from England. Deposits of clay, lime, and quartz are also found. The radium mineral springs on the banks of the Niemen are famous to tourists.

The manufactured products of Lithuania are leather, paper, farming tools, nails, horseshoes, beet sugar, and pottery. There are no coal and iron deposits. Owing to her abundance of flax and wool, it seems that there is a promising outlook for the future establishment of textile industries. Cotton is imported from the United States.

The amber industry must not be overlooked. On the Baltic coastline of this country is the only place in the world where the collecting, digging, and manufacture of amber is a practical industry. Ancient Phœnicia, Greece, Rome, and Egypt knew that this substance was deposited there. Many journeys were made to the shores of Lithuania for amber with which to make necklaces, buttons, and buckles.

The amber cigar-holders which are displayed in our stores to-day are made from this Lithuanian product.

The area of Lithuania is about as large as both Virginia and Maryland. The population is estimated at about 5,000,000.

The chief river is the Niemen. The principal seaport is Libau, which city is suited for the nation's capital.

Lithuania's geographical position and good seacoast offer excellent opportunities for both industrial and commercial development. With Russia as its eastern neighbor, it has far better prospects for substantial development than do certain other European nations like Switzerland; for much of this country's commerce with Europe and the west must cross the territory of its small and recently reconstructed neighbor.

Problems which might be offered for consideration of Lithuania are as follows: On what facts did the Lithuanians base their desire for independence? What geographical advantages should make Lithuania important to the world's work? Why did the Lithuanians migrate to the land which they now occupy? Where are the Lithuanians who have emigrated to the United States?[2]

Poland

History.—The people of Poland are Slavs. In complexion, Slavs range from brunette to blonde, the

[2] *Literary Digest*, 61:34, April 19, 1919.

former predominating among the southern Slavs, while blondes are more numerous among the northern people. The Poles speak a branch of the Indo-European language and hence are related to all the leading countries of modern Europe. The name was taken from the Polani, who first came from the East, in the "region of the Danube," and settling in the valley of the Niemen River, laid the foundations of the nation. Many other Slavic tribes of the same family of languages flocked to the fertile fields and plains of the Baltic. These took up their abode north of the Carpathian Mountains, west of the Volga River, and south of old Muscovy. The Polani, however, always kept their own government, for their rulers survived and kept alive their national aspirations.

The real history of Poland began with the establishment of the Piast rulers in the tenth century. At this time Christianity became the national religion; and Poland took rank as one of the important political powers of Europe. Successful wars of conquest soon enlarged its territories, which soon took in Lithuania, Pomerania, Ukrainia, Kiev, and other old countries, including all of the fertile region of south-central Europe lying between the Carpathians on the south, Muscovy on the north, the Baltic on the west and the Black Sea on the east. This was a very large territory as one will see who looks on the map. Its area is about 350,000 square miles. Manufactures and commerce flourished to a considerable extent.

Then came the monster Turks upon these peoples. These barbarians gave Poland a stunning blow. One group of people within Poland began to fight with the other. The peoples of one religion would wage war upon those of another. The rich people, called the aristocrats, held the peasants as their slaves. Selfish and incompetent rulers, unwise laws, disastrous wars with neighboring states, corruption and immorality in all the walks of life, so weakened the nation that it became an easy prey to the rising power of Russia, Austria, and Prussia. A nation could not exist in the face of such difficulties, for it was divided against itself, and pressed upon by foes from without. It was finally wiped off the map of Europe by the three great nations mentioned above.

During all this time Poland was not without its patriots. Sobeski, Kosciusko, and others struggled to regain liberty and independence, but all their attempts failed. The leaders were executed, imprisoned, or sent into exile.

The real emigration of Poles to the United States began in the year 1870. Between that year and 1880 40,000 entered our country. In 1885 the tide of Slavish immigration began to sweep through our ports of entry in an annually swelling stream, and Polish agricultural colonies were rapidly established around the Great Lakes, in Minnesota, and in the Dakotas. Texas has the distinction of containing the first permanent Polish settlement in the United States. (1855)[3]

[3]See "Poles in the United States," *Literary Digest*, 60:36, March 8, 1919.

After the defeat of the Central Powers in 1918, Poland was again made a nation by the Allied and Associated Powers at the famous Treaty of Versailles. It became a republic and the presidency was awarded to the great composer, Paderewski. In this way Poland once more gained a place upon the map of Europe.

Geography.—Poland, as reorganized by the Treaty of Versailles, is considerably smaller than it was in former years. The present area is about 135,000 square miles or about the size of Montana, with a population of approximately 35,000,000.

The climate is severe, the summers being extremely hot and the winters excessively cold. The soil is mostly a light, fertile loam, well adapted as a whole to cereal crops, though here and there occur extensive barren tracts of sand, heath, and swamp. This is especially so in the eastern districts of Poland. Some of the fertile land is permanent pasture, where some of the finest cattle in Europe are raised. Much of it is occupied by extensive forests of pine, oak, birch, and hemlock. Rye, wheat, barley, hemp, wood and its products, honey, wax, cattle, sheep, horses, inexhaustible supplies of salt, some silver, iron, copper, and lead constitute the chief natural resources. For the export of the surplus of these products the Vistula, the Bug, the Sar, and other rivers afford good facilities.

Warsaw, the capital and the largest city, owes its greatness to its position on the Vistula River, to

the rich surrounding agricultural country, to its manufactures, and to its enterprising people. It is also the seat of one of the most famous universities of Europe. Danzig, formerly belonging to Prussia, has been internationalized, and is used by Poland as its chief seaport.

Agriculture is the chief occupation, but there is considerable mining and commerce. The chief exports are cattle, hides, leather goods, honey, cotton and woolen goods, glass and earthenware. The present population consists of Poles, Lithuanians, Germans, Russians, Jews, and Gypsies. The religion is chiefly Roman Catholic with many Protestants and Jews.

Even as a state under foreign rule, Poland was a great industrial section before the World War. Why? (In the development of this problem, emphasize the character of the people; minerals: coal, iron, and other minerals; textile and other industries; and the importance of sugar-beets to the agriculture of the country.)

Poland was once called the "Granary of Europe" and the "Garden of Europe." Can these names be justified at the present time?

Hungary

History.—The Hungarians—in their own tongue, Magyars—come from the Tartaric family of languages, similar to the Turks, the Mongols, and the Finns. Their ancient abode was somewhere in the plains and mountains of central Asia. Certain members of this family, having settled in China and

Japan, laid the foundations of those prominent Oriental nations. Others occupied the plains of what is now Siberia. Under the leadership of Attila, Tomerlain, and Genghis Khan, the Tartars overran western Asia, the eastern part of the old Roman Empire, Russia in Europe, Poland, and Ukrainia. Wherever their warriors went, they left death and desolation in their course. From their hideous appearance, their cruel practices in war, their great numbers, and their oppressive rule, they were held in terror by all who dared oppose them.

The story goes that the Hun or Tartar chieftain, Attila, was so savage and fierce that grass never again grew where his horse once set its hoof. In the footsteps of Tomerlain and Genghis Khan whole cities disappeared, populous plains were transformed to sterile deserts, and the bones of slaughtered civilians were piled high up in places.

Europe was finally saved from these Huns. The Romans and their allies defeated, at Tours, a vast horde of Huns under their leader Attila, after which event those settling in the plains of Hungary, then known as Dacia and Pamonia, laid the foundations of modern Hungary, so named after the Tartar Huns. Hungary thus became "The Land of the Huns."

It will be recalled that the northern Tartar invasions were finally stopped by the Lithuanians near the Niemen (or Memel) River, after which these oriental barbarians either retired to Asia or settled down among the peoples with whom they had been waging such cruel warfare.

At one time, Hungary's rulers were elected by a council and held office so long as they remained faithful to their subjects and discharged their duties as rulers. About 1000 A.D., Christianity displaced paganism, and Stephen was the first king under the new faith. So wise, beneficent, and efficient was this great and good man that even to-day he is regarded as the patron saint of Hungary, just as St. Patrick is recognized by the Irish. Other strong rulers followed Stephen. It was due to them that the Mongol invasions and Turkish were repulsed.

It was in 1526 that the throne of Hungary became vacant. It was offered to the Hapsburg King of Austria. From this time down to 1918, with the exception of the nineteen years from 1848 to 1867, Hungary and Austria were united as a dual monarchy. Each country, however, retained its own local customs, institutions, and laws.

Early in the nineteenth century, Austrian rule was displeasing to the Hungarians; and a revolt, led by the patriot Kossuth, resulted. This movement for national independence was crushed when Russia sent timely aid to Austria.

The independent spirit and the national aspirations of the Hungarian Magyars could not be crushed by the stern rule of German Austria and the ruthless tyranny of the Hapsburgs. For a time it seemed that a second revolt, more dangerous than Kossuth's, would break out. In 1867, just after our Civil War, Francis Joseph, Emperor of Austria, chastened by a recent defeat at the hands of Ger-

many, consented to a compromise. Realizing that absolute government over people of different nationalities was impossible, Hungary was reconstructed as a separate state and its relations with Austria were regulated by a set of laws. This dual monarchy, under a constitution, permitted the Austrian emperor to be King of Hungary; but the common interests of the two states (Austria and Hungary), such as foreign affairs, the army, and the finances were regulated by a parliament composed of delegates from both countries. Each, however, was to have its own local parliament, the one sitting at Vienna, the other at Budapest. This peaceful governmental relationship continued until the victory of the Allies in 1918. Since that time, Hungary, shorn of much of her former territory, has been recognized as an independent republic.

Geography.—The new Hungary, as defined by recent events, has an area of about 46,000 square miles instead of 125,000, the old area. Even this may be reduced. Much of its former domain has passed under the political control of Roumania, Czecho-Slovakia, and Serbia. As now constituted, Hungary has Czecho-Slovakia on the north, Roumania on the east, Austria on the west, and Jugo-Slavia on the south. The population, composed of Magyars, Croats, Gypsies, Germans, and Jews, is about 15,000,000.

The soil, for the most part, is exceedingly fertile, and well adapted to agriculture and grazing. The

surface of this country consists chiefly of a vast plain called the "Alfold," which is one of the greatest wheat and stock growing sections of the world. Besides wheat, other grains such as oats, maize, rye, and barley are extensively grown. Vast quantities of flax and hemp are cultivated with great success. Potatoes, tobacco, fruits, such as peaches, apples, and figs are raised with great profit. Wine is also an important source of wealth. Large quantities of horses, cattle, and sheep are exported.

The leading occupations of the people are agriculture, some mining, manufacturing, and stock raising. Linen and woolen goods, leather, sugar, glass, and paper are its chief manufactures; and these, together with live-stock, constitute the chief exports.

The prevailing religious sects are Catholics, Jews, and Protestants.

The Danube River is the chief outlet to the sea.

Budapest is the capital and chief city.

In taking up the study of Hungary, it might be well to consider the problems, Will Hungary, smaller in area than formerly, be able to maintain as important a place in the affairs of the world? Why have the Slavs resisted the Hungarian yoke?

Czecho–Slovakia

Geography.—In the northeastern part of former Hungary, where the Carpathians slope toward the great Hungarian Plain, is a country which is now called Czecho-Slovakia. Lying directly between the German Empire and the Austro-Hungarian

Empire of former times, its location is important. It was Bismarck who said, "Whoever is master of Bohemia, is master of Europe." As Czecho-Slovakia now stands, it will be an effective barrier to German expansion. This region, comprising some sixteen counties of old Hungary, is the home of the northern Slavs or the Slovaks, an historic race of solid character and exceeding industry, whose fate, through the centuries, has been determined by other peoples.

This country, when viewed as a whole, is rough, consisting of mountainsides and valleys. Since the country abounds in timber and mineral resources one would naturally expect manufacturing to exist in this mountainous and hilly country. As a matter of fact, the former monarchy of Hungary gave up about three fourths of its industries to these Slavs. According to present indications these will, ultimately, be rehabilitated by the Czecho-Slovak Republic.

The exports of the republic consist mainly of leather goods, glass, textiles, machinery, beer, and sugar. Possessing an excellent beet-root harvest, Czecho-Slovakia is in a position to export exceptionally large quantities of sugar. Hops and timber are also available for export on a large scale. The clays near Karlsbad provide material which is used in the manufacture of high-grade porcelain.

The fruits of the temperate climate abound. In the eastern section of the country they are said to be particularly well flavored. The staple foods are black bread, the flour of which is a mixture of

barley and rye, potatoes, cabbage, milk, cheese, and corn meal. Meat is a luxury. Salt is scarce and high.

Czecho-Slovakia abounds in timber resources. The valleys and fertile lands were formerly owned by lords and nobles, who did not live in the country, or by the church. The peasants stayed on the land and tilled the soil. For this, they were paid a certain number of days' work each year. The living conditions of these peasants was difficult to imagine. Even if they had land of their own, it was in the roughest and rockiest regions on the mountainsides. These peasants had little, scattered pieces of land, so barren that constant fertilizer was required, in which case it was necessary for them to haul the manure up the mountainsides in baskets. As a consequence, the Czecho-Slovak either went out to seek employment as a laborer in the rich fields of Hungary or emigrated to America, where, by sheer pluck, good behavior, unbounded energy, and by hard work he has won merited recognition and holds the confidence of the American people.

Prague, the capital of Czecho-Slovakia, is situated on the Molkau River, a tributary of the Elbe River. Located in the midst of the most productive part of a country which has free use of the Elbe, Danube, and Oder rivers, as well as harbor privileges in Hamburg, Trieste, Fiume, and Stettin, Prague has become one of the chief trading and industrial centers in central Europe. Brünn, also a city of industrial importance, owes its growth to deposits of coal and iron near by. Agricultural machinery is manufactured in Brünn.

Czecho-Slovakia is building canals to connect the Elbe, Oder, and Danube rivers. The Elbe River flows to the North Sea; the Oder River leads to the Baltic; and the Danube empties into the Black Sea. Three important cities—Prague, Aussig, and Bratislava—will therefore have access to the world's commerce, and Czecho-Slovakia, though a land-bound country, will be linked to three seas and will be a maritime power. These ports are being enlarged so that Prague bids fair to become Czecho-Slovakia's Chicago, Bratislava her San Francisco, and Aussig her New York.

When the whole canal plan shall have been completed, cotton and raw material can be imported all the way by water from New York or New Orleans to her mills in the heart of Bohemia. In like manner, exports will find their way out. Sugar, cut glass, and leather goods will, in all probability, lead the materials exported from Czecho-Slovakia.

Problems that may be considered are, Why do you think that the Czecho-Slovaks may regain their ancient position in European civilization? What causes Czecho-Slovakia to be important to the surrounding countries? The Germans dreamed of a large kingdom lying through central Europe and thence into Asia. With Czecho-Slovakia, and the countries of Jugo-Slavia and Poland, as free nations, could such a dream be realized?

APPENDICES

APPENDIX A

REGIONAL GEOGRAPHY IN A COURSE OF INSTRUCTION FOR THE SEVENTH GRADE

A New Massachusetts Manual

The following lines are printed by courtesy of the *Journal of Geography* from an article under date of February, 1919, p. 62, and entitled, "Regional Geography In a Course of Instruction for the Seventh Grade."

The sections are reprinted by permission of the Massachusetts Board of Education.

The purpose of the Manual.—The manual is distinguished by the emphasis it places on regional geography. This will be shown by the reprint below of a section of the manual. Before this is done, however, it will be necessary to glance at the aim and purpose of the manual. In the first place, the authors assign to geography a high rank in the school curriculum. "It (geography) applies so widely to the immediate problems of human life, it possesses so broad a cultural value, and is so important in developing the powers of reasoning, of investigation, and of initiative that the committee feels that it deserves a prominent place in the upper grades or in the Junior High School." As a basis for the courses proposed for the seventh and eighth grades, it is assumed that before the end of the sixth grade, all the continents will have been studied in an elementary fashion, and that the two succeeding years may be available for covering the field with new method and emphasis. The United States and Europe, because of their importance, are selected for

intensive study, the United States being preferably assigned, other things being equal, to the seventh grade where it is to be supplemented by brief study of Canada and of the chief countries of South America.

This type of geography teaching is based upon the division of the earth into natural geographic regions to which human activities are closely related. It sums up the important facts with reference to a given region, and shows their relation to man. It utilizes the best of each of the other methods. Thus it demands a knowledge of location and of political geography, but uses these as a means of understanding the climate, the commerce, or international relations. It also requires a knowledge of physical features, but uses these as a means to understanding man's occupations, habits, and character. Far more than its predecessors, this method is characterized by a conscious attempt to meet the needs of the pupil as a member of society. This type of geography has been taught by progressive teachers for years. Now that the studies of the upper grades are being reorganized, the time seems ripe to accord to it (the regional treatment) a worthy place in every school.

The outline for study of the regional geography of the United States recognizes the following natural geographic regions:

(a) North Atlantic Lowland
(b) South Atlantic Lowland
(c) Appalachian Highland
(d) North Central Plains
(e) South Central Plains
(f) Rocky Mountain Region
(g) North Pacific Slope
(h) South Pacific Slope

The classification is simple and practical, but it is well to point out here that, unlike a political classification, it is not absolute. According to the geographic factors

stressed, the classification will vary in the hands of different interpreters. Those who are interested in pursuing the subject further should look up the papers, "The Subdivision of North America into Natural Regions," by W. L. G. Joerg, and "Natural Economic Regions," by C. R. Dryer, published in the *Annals of the Association of American Geographers* (4).

Finally, it is intended that study of the natural regions be followed by study of the political divisions. Regarding the relations between the two divisions and the emphasis to be placed upon them, opinions will vary, and it would be interesting to learn how this works out in practice.

Human Geography of the Natural Regions of the United States.—Since the available textbooks do not deal systematically with natural regions, the committee has felt it desirable to define those of the United States and Europe and to include in this manual a brief statement of the human geography of selected regions. A study of these regions may well serve as an introduction to the study of the political divisions as given in the textbooks. Thus the pupil is introduced to the United States or Europe by a study of the way in which nature leads the people of one region to live differently from those of another, and thus divides the world into natural regions which may or may not coincide with man's political divisions. In connection with each continent, this study may be finished in a few weeks or expanded to two or three months at the option of the teacher.

The following descriptions of the various regions are not exhaustive, nor do they suggest novel facts. They merely illustrate some of the ways in which the pupils may be led from a human interest to a clear and broad geographical concept. Other human interests may equally well be taken as the starting point. It seems to be unnecessary for the purposes of this manual to include descriptions of all the geographic regions of the United States or of Europe,

and no reference in this connection has been made to the other continents. Enough of this type of treatment is given, however, to illustrate the method.

I. THE NORTH ATLANTIC LOWLAND

The North Atlantic Lowland includes a strip of land from 30 to 50 miles wide, extending from northern Maine to the Potomac River. In general, it reaches back from the coast to the point where the hills begin to become mountains. Though hilly in the north, it is flat in the south. The irregularity due to the submergence of the coast multiplies the advantages of the lowland by providing an abundance of good harbors for commerce and fishing.

The dominant feature of this narrow coastal strip is a closely spaced series of industrial and commercial cities. Lying between Portland, Me., and Washington, D. C., about 1 per cent. of the area of the United States contains one fifth of its population, does one third of the country's manufacturing, provides work for one third of the immigrants from foreign countries, uses two fifths of all the cotton produced in the country, and carries on two thirds of the country's foreign commerce. All this is true largely because the lowland is within comparatively easy reach of Europe, the climate is invigorating, the harbors are commodious, and water power is abundant. For three hundred years the lowland has been the place that Europeans have chiefly thought of as they planned for emigration to America or carried on commerce with the people across the sea.

Since good farm land is not abundant here, agriculture has never been of first importance. The people have been obliged to turn to other occupations. Before machinery was common the people of the North Atlantic Lowland engaged largely in ocean commerce, whaling, and the slave

trade. Later they undertook manufacturing. For this purpose they brought to their homes the cotton of the South and the coal and iron of Pennsylvania and states farther west, but they used the water power of their own rivers. Being within easier reach of Europe than was any other part of the country, the lowland was the first to learn from that continent the art of manufacturing; and it still derives great profit from its relative proximity to Europe because the immigrants from the Old World usually land on its shores, where it is easy to secure them for factory labor.

In some respects it is unfortunate that hilly and even mountainous spurs from the Appalachian Highland extend into the lowland and make the surface rough so that good farm land is scarce. The little farming possible, however, is well done. Since most of the level land lies near the coast and surrounds the bays where the cities are located, the farmers devote themselves largely to raising vegetables, poultry, and fruit and to producing milk for the city markets. So well is the land cultivated that this 1 per cent. of the country's area raises 3 per cent. of the crops and produces more per acre than any other section.

Main Proolem.—Why should the North Atlantic Lowland have more large cities than any other region of the United States?

Minor Problems.—1. From a list of the sixty largest cities of the country, to be found at the back of your geography textbook, select those that are located in the North Atlantic Lowland. Prove that no other natural region of the country contains so many.

2. Relation of the leading cities of the North Atlantic Lowland (those in the list you have made) to good harbors. Which are located on good harbors? Does any other region have so many good harbors?

3. Relation of the leading cities to rivers. Which are

located on navigable rivers or canals? Which are located at waterfalls? Does any other region have better opportunities for river cities?

4. Relation of these cities to Europe as compared with the relation of other cities of the country. What advantages are there in this relation?

5. Position of the leading cities in respect to coal mines.

6. What effect has the climate of this lowland as compared with that of other regions of the country in producing an energetic people? What effect does this have upon the growth of cities?

7. How early was this lowland settled as compared with other parts of the country? How, then, has age helped the growth of the cities here?

Conclusion.—(Under this head the answer to the main problem is to be given in the form of a brief summary of the results of the minor problems.)

2. THE SOUTH ATLANTIC LOWLAND

The South Atlantic Lowland consists of the level plain or gentle hilly country extending from the Potomac River to the Gulf of Mexico. On the west it is bordered by the eastern slope of the Appalachians, but farther south it is arbitrarily separated from the South Central Lowland by the boundary between Georgia and Alabama. Although five or six times as large as the North Atlantic Lowland, it has less than half as many people, does only one seventh as much manufacturing, carries on only one fifteenth as much foreign commerce, and uses no more cotton in its mills, even though the cotton grows right there. It has only one foreigner to more than fifty in the northern lowland. These conditions are due partly to the fact that the climate is admirably adapted to cotton and tobacco raising and to the negro, but not so well

to the white man of northwestern Europe. They are also due to the distance of the South Atlantic Lowland from Europe and to the scarcity of good harbors along its coast. These conditions tend to drive people inland instead of holding them near the sea. Moreover, an inner border of mountains hinders trade much more than do the mountains on the western side of the North Atlantic Lowland. The swampy, and in many places unhealthful, coast with its few and poor harbors caused the early settlers to press inland till they reached the gently rolling inner strip with its deep, rich soil where cotton and tobacco thrive.

Hence commerce and fishing did not flourish and, when the time came for manufacturing, the people were deriving such prosperity from their farms that they did not care to try other occupations. In fact, agricultural labor was in so great demand that there was little to spare for manufacturing, and negroes were brought from Africa in order to raise big crops of cotton to sell to the North Atlantic Lowland and England. To-day the presence of tobacco in the north, and cotton farther south, is causing manufacturing cities to grow up in the interior, or Piedmont, section of the South Atlantic Lowland, but the coast cities do not grow rapidly. There is little immigration because of (1) few ports, (2) a warm climate, (3) the presence of the negro to furnish labor on the farms.

Main Problem.—Why are Fernandina, Fla., and Savannah, Ga., the leading ports of the world for "naval stores"?

Minor Problems.—1. What are "naval stores"? Why are they so called?

2. What trees produce naval stores? Where do these grow in the United States?

3. What parts of the United States and what countries of the world use large quantities of naval stores?

4. Where are these ports in relation to the places where naval stores are produced and the places where they are used?

Conclusion.—(To be stated in the form of a brief summary of the results of the minor problems.)

3. THE APPALACHIAN HIGHLAND

The Appalachian Highland, a long, narrow strip extending from the mountains of Maine southwest through the White Mountains, Adirondacks, Alleghany Plateau, and Appalachian Mountains proper to northern Alabama, is the lumber yard, coal bin, and pleasure resort of the eastern half of the United States. The northern end differs little from the southern, for the difference in latitude is partly offset by the higher elevation of the southern. Throughout much of its length the ruggedness and coolness of the mountains forbid agriculture, so that forests grow everywhere, and lumbering is the chief occupation. The forests and the ruggedness of the section combine to make travel difficult and to make it impossible for people to live there in large numbers. In certain localities the sparse population is uneducated and backward. Such conditions would be more prevalent if it were not that a long fertile valley extends through the highland almost from end to end between the mountains on the east and the plateau on the west. In the North, in such regions as the Adirondacks and White Mountains, the presence of great numbers of summer visitors helps to bring prosperity, but this influence is only beginning to be felt in the South.

The center of the Appalachian region is quite different from the rest. In the first place, this is where the highland can be crossed most easily. From New York an easy route by the Hudson Valley and Lake Champlain leads across to Montreal, while the still easier route by the Hudson and Mohawk valleys leads to the Great Lakes. Therefore several cities, like Albany and Utica, have grown up, but New York has reaped the chief benefit from this situation by being the seaport which can most easily handle the products of the Great Central Plains. Farther

south, in Pennsylvania and Maryland, the valleys of the Delaware, Susquehanna, and Potomac also furnish routes across the Appalachian Highland, although not so good as that of the Hudson-Mohawk Valley. It is fortunate that just where the climate and position of the North Atlantic Lowland most favor rapid development it is easiest to cross the highland and reach the Great Central Plains.

A second reason why the center of the Appalachian Highland differs from the extremities is found in the great deposits of coal in Pennsylvania and West Virginia. Therefore in this region mining and manufacturing are more important than lumbering, and in consequence there are found such cities as Pittsburgh, Wheeling, Johnstown, and Scranton. The factories are not like those of the North Atlantic Lowland, however, for they are concerned with turning coal into coke, with smelting iron ore, and with making machinery, rails, and other steel and iron products. Around Birmingham, Ala., "the Pittsburgh of the South," the presence of coal and iron causes the low southern tip of the Appalachian Highland to be somewhat like the center. Apart from its coal and its forests the Appalachian Highland is chiefly important as a barrier. In the future, however, its use as a playground will become more and more prominent.

Main Problem.—Why are the Adirondack Mountains one of the most famous summer resorts, while the North Carolina Mountains are rarely visited?

Minor Problems.—1. How do the Adirondack Mountains compare with the North Carolina mountains in respect to:

Height of the mountains and the presence of forests?

The warmth and length of the summer of the neighboring lowlands and the consequent need of a cool place for recreation?

Proximity to large cities?

Comparative number of railroad lines entering the two regions?

Wealth of the neighboring regions and the ability of the people to afford vacations?

2. Will the North Carolina mountains ever be as popular a summer resort as the Adirondacks?

Conclusion.—(To be stated in the form of a brief summary of the results of the minor problems.)

4. THE NORTH CENTRAL PLAINS

As "cotton is king" in the South, so "corn is king" in the northern half of the great grassy plains that extend from the western base of the Appalachian Highlands to the eastern base of the Rocky Mountain Region. This is the home of the farmer. With a quarter of the country's area and a third of its people this section raises half of the food, has half the cows and horses, keeps 60 per cent. of the swine, and raises three fourths of the corn, oats, and barley produced in the whole country. The North Central Plains provide the country's food in much the same way that the North Atlantic Lowland provides the manufactures and handles the foreign commerce. With a climate that makes people energetic, with deep, rich soil, and with vast expanses of level surface where roads and railroads are easily built, such a region is most favorably conditioned to provide enormous quantities of food for the workers in the factories farther east and in Europe. It has its own manufacturing region around the Great Lakes, where there are cheap transportation facilities and abundant coal. Automobiles, farm machinery, cutlery, and hundreds of other kinds of iron and steel products are manufactured. Away from the coal beds and the lines of easy transportation by water, the factories are less numerous and are chiefly those that grind wheat, make butter, can vegetables, prepare meat, or otherwise use farm products. Such manufacturing is quite different from that

of the smoking steel factories of the center of the Appalachian Highland, or the humming textile mills of the North Atlantic Lowland. With its abundant food, prosperous farmers, stimulating climate, and easy transportation, the North Central Plains lack only a seacoast and good opportunities for recreation to provide almost ideal geographic surroundings.

Main Problem.—Routes of transportation are more numerous in the North Central Plains than in any other equally large region in any part of the world, except the western lowland of Europe. What conditions have made this possible?

Minor Problems.—1. Lakes: (a) What are the opportunities for lake transportation? (b) What is the combined length of the lakes? (Use scale on map.) (c) Are there to be found anywhere else so many large lakes that join one another? (d) What is the origin of these lakes?

2. Rivers: (a) What navigable rivers are there in the North Central Plains? (b) What is the combined length of the navigable parts? (c) What relief of the land allows the rivers to be navigable for so great a distance? (d) Why are these rivers not used more for transportation?

3. Canals: (a) What canals have been dug to permit transportation from one lake to another? (b) What canals connect rivers with lakes? (c) Why are the lake-to-lake canals so extensively used and the lake-to-river so little used?

4. Railroads: Look at a railroad map of the United States and notice the close network of railway lines covering the North Central Plains. (a) How has relief favored the building of these lines? (b) How have the number and wealth of the inhabitants encouraged railway building?

5. Roads: Roads are very numerous all over the North Central Plains. How has their extension been influenced (a) by relief; (b) by fine soil; (c) by the presence of farms everywhere?

6. In general: (a) What products are raised in this region that are easily transported to markets? (b) Which transportation routes have been favored by the presence of coal? (c) Where are the coal fields?

Conclusion.—(To be stated in the form of a brief summary of the results of the minor problems.)

5. THE SOUTH CENTRAL PLAINS

The South Central Plains consist of the central plains south of the southern boundaries of Colorado, Kansas, and Missouri.

6. THE ROCKY MOUNTAIN REGION

The treatment of this topic and the preceding one on the South Central Plains should be developed in accordance with the plan used for the other regions.

7. THE NORTH PACIFIC SLOPE

It is strange that one of the best parts of the United States should have remained almost uninhabited until a half century ago. The North Pacific Slope, between the crest of the Cascade Mountains and the sea, is blessed with one of the best climates in the United States both for health and for agriculture. It is one of the most beautiful regions. It has splendid harbors and easy water communication, and possesses abundant natural resources in the form of timber, coal, and other minerals. Yet a half century ago, it had only one inhabitant to every five hundred in the United States. To-day comprising about one fiftieth of the country's whole area, it has about one fiftieth of the population, and is growing more rapidly

than any other part of the country. The reason the North Pacific Slope, comprising the western part of the states of Washington and Oregon, was so long neglected is that it is comparatively remote. The Cascade Mountains on the east and Siskiyou Mountains on the south are formidable barriers. Then, too, the great Pacific Ocean on the west separates it from China and Japan. The coast is so rainy and rugged that few people can live there. For the foregoing reasons the veritable gem of country comprising the Willamette and Puget Sound valleys between the Olympic Range and the Cascades remained unused almost to our own day. Now it has become one of the country's finest agricultural regions. Compared with the North Atlantic Lowland, it cannot carry on so much commerce because it is too far from the great markets. In spite of this, cities like Seattle are beginning to do much manufacturing to supply the needs of the Pacific coast. The moist slopes of the magnificent mountains are covered with the finest kind of forests, where some of the Douglas firs rise to a height of 300 feet. So abundant are forests that nearly half of the states of Washington and Oregon has been placed in forest reserves by the United States Government. Wood is so plentiful that Seattle is one of the chief woodworking centers of the country.

Main Problem.—Suppose the prevailing wind of the North Pacific Slope were an easterly instead of a westerly wind. What differences in the life of the region would be found?

Minor Problems.—1. The present distribution of rainfall. How much is there (a) on the coast; (b) in the Willamette and Puget Sound valleys—for example, at Portland and Seattle; (c) on the eastern side of the Cascade Mountains?

2. If the winds came from the east, what parts of this region would receive the greatest rainfall; the least?

3. Consider the relation of such winds to the ocean and

the continent. What parts of the United States would the dry portions probably resemble?

4. Would there be any forests? If so, where would they be? How would they compare with the wonderful forests that now cover the Olympic Mountains?

5. Would the population be as abundant as now? What sort of occupations would the people probably follow?

Conclusion.—(To be stated in the form of a brief summary of the results of the minor problems.)

8. THE SOUTH PACIFIC SLOPE

The most surprising thing about the South Pacific Slope, which embraces California from the crest of the Sierras to the ocean, is the number of products in which it stands first. Most people know that California rivals Colorado as a gold-mining state and that it stands first in raising oranges and grapes. Few, however, realize that it also stands first in raising melons, string beans, plums, asparagus, and walnuts. One tenth of all the country's melons, fruits, and nuts come from this region. It raises one seventh of the string beans, nearly one third of the plums and prunes, and more than one third of the asparagus. As for oranges, half of those produced in the United States are from the South Pacific Slope, while two thirds of the grapes and four fifths of the walnuts come from there.

In spite of its wonderful achievements in agriculture, however, the South Pacific Slope is not very densely populated, for it contains vast areas that are either too mountainous or too dry to support many people. Nevertheless, it has as many inhabitants as the Rocky Mountain Region, which is six times as large.

Four great natural resources have in turn been the mainstay of the South Pacific Slope. Before the coming of the white man, the Indians, not knowing how to use many of these resources, were very poor and degraded.

The Spaniards brought cattle and so were able to use the abundant grass—the first important resource. California might still be a great cattle country, as it was in the days of the old missions, if other occupations were not more profitable. One of these occupations is mining. It began in the middle of the last century when "prospectors" found that gold was an important resource of the western slope of the Sierras. The people who came for gold had to be fed, and they began to use still another resource—the fertile soil. On account of this California acquired fame because of its vast fields of wheat and barley. Cereal farming was so profitable that it banished cattle raising from the better watered parts of the country. Then a fourth resource—the water of the rivers—was used. By means of irrigation the raising of fruit and vegetables became so profitable that in large areas it took the place of cereal farming. This will probably be the great enduring industry of the country, for agriculture of this sort is the chief occupation in other subtropical countries, such as Italy and Syria, which resemble California in having abundant rain in winter and a long, dry period in summer.

Main Problem.—Why do so many people like to visit southern California?

Minor Problems.—1. The kind of climate: (a) temperature (amount of variation from day to day and from season to season); (b) rainfall (amount, season, number of rainy days); (c) character of the season.

2. Character of the scenery: (a) mountains; (b) forests; (c) vegetation of the irrigated areas; (d) deserts; (e) coast.

3. Irrigation: Why should life in an irrigated fruit region be attractive?

4. Manufacturing: Is there much or little in southern California? Why? Does this condition make the region attractive? What sort of people does it attract?

5. Many people come to southern California for their health. Which of the conditions suggested above are especially attractive to them?

Conclusion.—(To be stated in the form of a brief summary of the results of the minor problems.)

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APPENDIX B

ILLUSTRATIVE MATERIAL

Government publications.—The publications of the Government Printing Office at Washington constitute the Public Documents of the United States. In order to find out about the Government publications, one can obtain a list of these by writing to the Superintendent of Public Documents, Washington, D. C. A *monthly list* of all the publications is prepared by the Superintendent of Public Documents and can be obtained upon request. From whatever department material is desired, the letter should be addressed to the Superintendent of Public Documents, Washington, D. C.

The following are some of the departments which issue material of geographic interest:

Department of Agriculture
State Department
Treasury Department
Department of the Interior, Bureau of Education
Department of the Interior, U. S. Reclamation Service
Department of Commerce (monthly list of publications)
Department of the Interior, General Land Office
Department of the Interior, Bureau of Mines
Smithsonian Institution

From the Weather Bureau (Department of Agriculture) are issued not merely weather maps but also Annual Reports and Monthly Weather Reviews. The Annual Reports, which are called Year Books, and Bulletins of the Department of Agriculture cover various subjects: farm-

ing, forestry, irrigation, soils and fertilizers, birds and wild animals, plants, etc. The Atlas, "Geography of the World's Agriculture," includes maps, graphs, and text and shows agricultural distribution, both plant and animal, not only in individual countries but also in the world as a whole.

The Geological Survey publishes reports upon irrigation and furnishes accounts of the geology of interesting regions, especially mining regions. The annual reports of the mineral resources (with statistics) are interesting and valuable. Topographic maps are also issued by the Geological Survey. These can be bought for five cents each. A map of the region in which your school is located is issued.

The Department of the Interior, Bureau of Education, publishes each month a *monthly record of educational publications*. This is a classified list. Publications in journals and magazines relating to geography are properly classified in this record. This is sent free upon application to the Bureau of Education.

The Director of the Mint issues annually a report on precious metals; and the report of the Bureau of Ethnology and that of the Commissioner on Indian Affairs are valuable.

A wealth of geographical material is contained in the various Census volumes. Statistical studies of importance are given in these reports, and particularly in the "Statistical Atlas of the United States." The Superintendent of Public Documents will acquaint one with the contents.

The United States Coast and Geodetic Survey issues maps of importance. Schools which are located on the seacoast or rivers can get instructive maps of their locality. Weather maps can be obtained from the Weather Bureau of the Department of Agriculture.

The Bureau of Foreign and Domestic Commerce, Department of Commerce, issues reports covering various industries and all types of commerce with other nations.

State publications.—Many states issue valuable reports on agriculture, mining, manufacturing, etc., usually in the form of *handbooks*. These can be obtained from the Department of Agriculture of the several states, the address being the State Capital. This information is particularly valuable for the study of sections of the United States. (See pp. 134-151).

Special reports.—The statistical abstracts (Treasury Department) on commerce, population, finance, and the like are important. Consular reports (State Department) sent from the foreign offices, containing notes upon foreign industries, agriculture, and affairs in general are valuable reference material.

Congressmen and Senators can assist.—Congressmen and Senators at Washington are glad to assist in distributing copies of government publications among their constituents. Teachers may write to them. While some of the publications have to be purchased, the great majority are issued for free distribution. Applications, in moderation, by schools are usually granted, provided the quota is not exhausted.

Farmers' Bulletins, issued by the Department of Agriculture, Division of Publications, will be sent free so long as the supply lasts, on application to the Secretary of Agriculture, Washington, D. C., or to any Senator, Representative, or Delegate in Congress. Thousands of these bulletins have been distributed.

Special lantern slide sets.—Sets of about fifty lantern slides, each set accompanied by a syllabus or lecture, can be loaned for short periods to schools, for which application must be made to the Forester, Forest Service, Washington, D. C. Some of the subjects available are: Nature Study and Forestry, Botany and Forestry, Manual Train-

ing and Forestry, Geography and Forestry, Agriculture and Forestry, and Life of a Tree. These are loaned under certain conditions.

Traveling exhibits of commercially important woods.—Schools may also obtain from the Forester, Forestry Service, Washington, D. C., samples of commercially important woods together with illustrative maps. These are loaned for a short time.

Photograph exhibits.—Photographs illustrating some special feature of foresting work or forest conditions in the United States can be secured by schools from the Forestry Service of the Department of Agriculture for a short loan.

The Smithsonian Institution.—Many publications of the Smithsonian Institution deal with subjects of timely and general interest; and, often, the treatment, though scholarly, is non-technical and well illustrated. For instance, "The Mineral Industries of the United States" is a series which may be obtained free of charge from the Smithsonian Institution, Washington, D. C., and comprises the following subjects: Coal Products, Fertilizers, Sulphur, Coal, Power, Petroleum, The Energy Resources of the United States, etc.

State universities.—The several State Universities are beginning to send out to schools special lantern slides and moving pictures. Address the Secretary of your State University, asking for a list of such material issued by them. The Bureau of Commercial Economics, Washington, D. C., furnishes a list of picture films for moving pictures.

National Geographic Society.—During the time that the *National Geographic Magazine* has been published an immense reservoir of photographs has been issued.

In order that these photographs may be available to schools the National Geographic Society, Washington, D. C., has established a school service which is issuing, from its vast pictorial collection, a series known as Pictorial Geography. So far there have been issued four sets: those on Eskimo Life and Sahara Life, each containing twenty-four sheets, while of those on the Land, Water, Air, and the United States, each contains forty-eight sheets. The picture subjects and the reading matter accompanying each picture are in conformity with current geographical courses. More sets are being issued as rapidly as possible. They are sold at cost.

The National Geographic Society also issues weekly a *Geographic News Bulletin* for the Department of the Interior, Bureau of Education. The bulletins are furnished by the Society. Teachers may apply individually for them; principals may apply for copies for teachers (not for individual pupils at present) and for their school libraries. Superintendents desiring copies for their entire teaching staff should correspond with the Bureau of Education, Washington, D. C., as to methods of sending in quantities. These bulletins contain many problems for use in classrooms.

Other magazines.—Of special importance to teachers, because of the wealth of pedagogical and geographical material contained in them, are the *Geographical Review*, published by the American Geographical Society, New York City, and the *Journal of Geography*, the official journal of the National Council of Geography Teachers and published by A. J. Nystrom and Company, Chicago, Ill.; *Asia—Journal of the American Asiatic Association*, published by the Asia Publishing Co., New York City, the *Geographical Journal*, published by the Royal Geographical Society, London, England, and the *Scottish Geographical Magazine*, published by the Royal Scottish Geographical Society, Edinburgh, Scotland.

Railroads, chambers of commerce, and industries.—Folders and booklets can be obtained from certain railroads, industrial and commercial houses and chambers of commerce, though in limited quantities. Postage must be paid by the person or persons applying for them.

Suggestive of the material that can be obtained, the following names of folders that have been issued are given: "America's Summer Resorts," "Niagara Falls," "The Hudson River," "North Carolina," "Texas Along the Cotton Belt Route," "Michigan, the Land of Plenty," "Electric Power From the Mississippi," "Scenic Colorado and Utah," "The Pacific Northwest," "Yellowstone National Park," "The Beauties of Puget Sound," "Pittsburg, the Gateway Between East and West."

APPENDIX C

THE CLIMATE OF LIBERIA

An article, "The Climate of Liberia and Its Effects Upon Man," by Emory Ross (*Geographical Review*, June, 1919), closes with this statement (p. 402): "The writer has cited many things in this paper that do not bear directly on climate, in an attempt to point out a few of the influences that, connected with an unusual and inhospitable climate, combine to make acclimatization at present all but impossible. My feeling is that, if the earth's increasing population makes the acquisition of additional cultivated land areas of sufficient importance to justify the immense efforts that would be necessary for the sanitation of tropical countries, acclimatization of the white man to these countries would be possible. This means, of course, that the present bar to such acclimatization is mainly disease rather than climate."

An outline of the paper quoted above is reproduced here to illustrate the didactic treatment of climate rather than the purely scientific treatment of climatology.

I. Meteorological records.
   1. "The only meteorological records in existence that have been made in Liberia over a period of more than a few weeks are those begun in 1913 and ended in 1915."
2. Summary of the records.
   A. The mean annual temperature 78.7° F.
   B. The rainy season, from mid-April to mid-

November, occupied about seven months of the year. Precipitation described.

3. Sensible temperature and insolation.
   A. "The sensible temperatures of the Liberian coast are not so high as those of many places in intermediate latitudes. The writer, at any rate, has never experienced in Liberia the sense of suffocation, gasping respiration, and general oppression that he has repeatedly felt in July and August in Indiana and Illinois, not to mention Mississippi."
   B. The heat has steady persistence, and the cumulative effect is extremely enervating.
   C. "Insolation values are exceedingly high. How high, one lacks data for determining. It does not require instruments, however, to give one an appreciation of the power of the sun's rays. Negligent or ignorant exposure by a European of a bare head to the sun for periods of 2, 5, or 10 minutes and like short periods of time, has resulted in prolonged pernicious fevers and sometimes in death."
4. Effects of elevation. Elevation above the sea level markedly affects the temperature, and hence the Europeans build their houses on the hills.
5. The fact that makes the coast as good as it is for the white man, is the winds. The nights are cool, and the evening is the social time *par excellence* of the tropics.
6. A region of high humidity. Humidity data are not available, except in certain sections. During the dry season, the rainfall is negligible, but moisture is supplied to the plant life by the excessive dews that, in many cases, are equivalent to light showers.
   A. The rainy season. Descriptions of the rainy

season. Storms are sudden, and from the southwest.

B. Influence of the rains on human life. The rains have an important influence on the life of the country in relation to travel, transportation, communication, and food supply. The style of architecture is affected. Thatching and rethatching of the roofs.

C. European life on the west coast. The houses are substantially built.

(1) The white ant is a pest.

(2) Railroad and telegraph lines are made of steel ties and poles.

(3) The climate limits the food supply. Not more than half the variety of Europe is produced.

(4) Statements in regard to soil production.

7. Tropical hygiene.

A. Mosquitoes in abundance. Prevalent diseases.

8. The excessive strain of the tropics. Eighteen months is long enough for any one to sojourn.

A. Moths eat up clothing.

B. Cockroaches, rats, white ants, driver ants, jiggers, and fleas are prevalent.

C. The odors, mists, and the heavy, drooping, silent, and impenetrable forests cause a sense of dread.

APPENDIX D

DRAMATIZATION OF GEOGRAPHY

Geography can be dramatized. In a fifth grade of eleven-year-old children, Miss Bessie Sampson, of the Bainbridge School, Richmond, Virginia, secured the following review of the grade's course of study about Latin America. The teacher organized the suggestions which were contributed by the pupils. These suggestions bear evidence of "purposing, planning and judging" by the children. The teacher, in assisting them in the actual dramatization, guided the purposeful activities of pupils in executing their plans.[1]

Uncle Sam's Country Store

CHARACTERS

Uncle Sam, Miss Columbia, Bolivia, Chile, Argentina, Paraguay, Brazil, Mexico, Filipino, and Cuba, each wearing costume or insignia suggestive of their respective countries.

Uncle Sam, wearing a long, white apron and straw cuffs, and in regulation costume, stands behind the counter (the teacher's desk) on which are displayed certain miscellaneous articles such as one sees in a country store.

Miss Columbia is dressed in regulation costume.

Enter Bolivia (carrying basket on her arm)

[1] See "The Project Method," William H. Kilpatrick. *Teachers College Bulletin*, Columbia University, Oct. 12, 1918.

Uncle Sam: Good morning, Mrs. Bolivia! What can I do for you to-day?

Bolivia: (*Opening basket*) I have brought you some tin ore, some coca, some silver and some lead. (*Places the packages on the counter*). I don't know what I want in exchange. I must look around.

Uncle Sam: Take your time. (*Handles the packages*). I am glad to get all that you have brought. How about some cotton goods to-day? If what I hear is true, some of your children go practically naked. Maybe they wouldn't be quite so savage if you would dress them properly.

Bolivia: Well, Uncle Sam, my children are improving, I am sure; and that is more than can be said of some of yours. (*Pointing*) I'll take some of that blue calico if you will guarantee it will not fade. How is Mrs. Sam?

Uncle Sam: I am afraid she has a touch of malaria. I wish you had brought me some cinchona. Be sure to bring me some next time you come, because I want to make some quinine for her. Bring some more coca, for this tooth is bothering me and I may need some cocaine. By the way, I hear that our friend Chile has opened his heart and given back the property which it is said he took from you some time back.

Bolivia: Yes, that's so. I can now open my windows on the Pacific. I can also take a sail whenever I like.

Uncle Sam: That's fine. How about some food products and some "drinks" (beverages) to-day? I know you need these. Do you need any railway supplies?

Bolivia: Yes. I wish you would duplicate my last

order; but nothing else to-day, Uncle Sam. There comes that Chile fellow now. I'm going. (*Exits hurriedly*).

Enter Chile

Uncle Sam: "Talk about angels and you hear the flutter of their wings." Friend Bolivia and I were just saying how kind and noble you are to give her a part of your estate so she can have a window on the sea.

Chile: Is that so? (*Confidentially*) You know, Uncle Sam, I believe she thinks I stole that land from her and that I have only given her what is hers by right. Well, never mind. See here, I have brought you a load of nitrate of soda to-day. Are you ready for it?

Uncle Sam: Yes, the farmers around here have already been asking about it. They have found that it is a waste of time to try to raise anything when they have not used a good fertilizer on the soil.

Chile: I'm coming to the store again Wednesday. Anything special you want me to bring?

Uncle Sam: I could use some iodine, some borate of lime, and all the wool you can bring me.

Chile: All right. I have some samples to match for Mrs. Chile. (*Pulls large roll of samples from pocket*) We had better do this first, because I am afraid to go home without her order?

Uncle Sam: (*Laughing*) All right. Woolen or cotton goods?

Chile: Both. I hope we may be able soon to make most of the cotton and woolen goods that we need for our children, but we can't do that at present. Besides, what we get from you has always been satisfactory.

Uncle Sam: Miss Columbia, match these, please, and

make a package of the quantities called for on each sample. (*To Chile*) By the way, I hear you have formed a new stock company down your way, to pack meats and cure hides on an extensive scale. Is that so?

Chile: Yes; and, what is more, the companies for manufacturing fertilizers are increasing each month.

Uncle Sam: That's going some! Now, Mr. Chile, how about some machinery for all of those new factories?

Chile: Yes, I do need some machinery for them and also for a silver mine. I have made a list of what I want in the way of machinery, paints, and hardware. I wish you would see to it that these orders are given prompt attention. (*Starting off*)

Uncle Sam: All right, I will.

Chile: (*Coming back in haste*) Gracious! I forgot the very thing this string was to remind me of! (*Indicates very long string hanging from finger*) Be sure to put in a bottle of cologne and a cake of soap for Mrs. Chile.

Uncle Sam: (*Laughing*) All right. What did she say about that hat you bought for her last week?

Chile: (*Making wry face*) Don't ask me!

(*Exit*)

Uncle Sam: (*Addressing Miss Bolivia*) There comes Mr. Argentina. I hear he has a good wheat crop this year and that means that while he will interfere with my wheat trade he'll have some money to spend. I'm not jealous, though. "Live and let live," say I.

Enter Argentina

Uncle Sam: Good day, sir! I hear you have a fine wheat crop this year. Is that so?

Argentina: Yes, pretty good, Uncle Sam. We didn't have a drought as we did last year; and the locusts didn't take a notion to come and destroy my field, so I really have a bumper crop, thank you. We are rivals in wheat selling, Uncle Sam, but it happens that, this year, our near neighbors need all we can sell them. We are also going to do well in rye, barley, oats, beans, potatoes, and corn.

Uncle Sam: Good! What can I do for you this morning?

Argentina: You carry electrical apparatus, don't you? I'm going to have my house and my cheese factory wired for electricity next week and I would like to get the material and fixtures from you.

The automobile truck I bought from you will be along presently, and I wish you would put on it some railway supplies I have listed here. (*Hands the list to Uncle Sam*) That hoe hanging there reminds me I need one. You may put that on the truck, too.

Uncle Sam: By the way, Mrs. Sam told me to be sure to ask you if you could let her have an ostrich plume like the one Mrs. Argentina had on her hat Sunday.

Argentina: Sure, I can. I'll bring it next week. The truck is loaded with the hides you ordered last week. (*Starting away*) I'm trying to get a few more hands for my farm. While I have a few Indians, most of my help are Italians, so I think I'll go and look over the immigrants. Good-bye 'till I see you again.

(*Exit*)

Enter Paraguay

(*Small boy with a large basket*)

Uncle Sam: Hello, Paraguay!

Paraguay: Hi, Uncle Sam! Mother says send her (*reading from list*): two yards of calico to make me a shirt for me to wear to school, one tack hammer for papa to put down the carpet, one box of shells for papa's gun, one music box for my little brother, and one box of aspirin for my grandmother.

Uncle Sam: All right, sonnie!

Paraguay: You fix them up and I'll come by on my way from school and get them. (*Starts away*)

Uncle Sam: Hold on! Didn't you bring me something in that basket?

Paraguay: Gee! I almost forgot. Yes. Everything in here is for you except my lunch and that's at the bottom.

Uncle Sam: (*Taking articles out of the basket as he calls*): One dozen oranges, one package Paraguay tea, one pound leaf tobacco, two bottles of quebracho extract, one can of meat extract, three yards of lace, and eight grams of heron plumes for aigrettes.

All right, you will have to run to school. It's ten minutes to nine now! (*Exit, Paraguay*)

(*Enter Brazil*)

Brazil: (*Entering hurriedly*) Look here, Uncle Sam, do you want my trade?

Uncle Sam: Certainly I do. Why do you ask that question?

Brazil: Well, you are not making much of an effort to keep it, I must say. If you can't do better, I am going back to that German fellow I used to trade with before the World War. I know an English merchant who would like to have my trade, too. They are both after me.

Uncle Sam: Hold on a minute! You know I can't afford

to lose your trade, for I can't do without your rubber and coffee, to say nothing of your sugar, cacao, wax, and hides—and Brazil nuts for Christmas. Besides, I have a rush order here now from a big steel factory for some manganese ore to harden steel; and I want you to take the order back with you.

I thought you needed my food products, machinery, shoes, paper and cotton goods. Don't you?

Brazil: So I do. But you will have to be more careful. That case of apricots I bought from you last week was a complete loss to me. A thin layer of the fruit on top was good, but all the rest was old, poor fruit. Then, too, I bought some scissors from you the same day. You remember, don't you? Well, I found the shipment to contain some very poor pairs which I did not order. The box of grape juice was partly filled with paper and sand and contained only a few bottles of the juice.

Uncle Sam: Why, I am astonished, old man! I can't think how in the world that could have happened! Oh, wait! That new clerk I had last week must have done all the damage. I found that he had been working for the German fellow you mentioned, so I discharged him.

Brazil: Ah, I see! He was evidently trying to break up our trade.

Uncle Sam: Exactly. Now, brother Brazil, you just be patient. I'll straighten out this trouble. There is no one I would rather have for a customer than yourself. I see that we are going to do a bigger business in the future than we have done in the past. I promise you

a square deal from now on. Here's my hand on it!

Brazil: All right, Uncle Sam. I believe you will make things right. I appreciate your friendship and wish to keep it. Good-bye.

(*Exit*)

Enter Mexico followed by Filipino.

Mexico: I'm in a big hurry, Uncle Sam! Here's the cochineal dye you said you needed to paint your Christmas candy, and here is a bottle of vanilla Mrs. Sam ordered for her Christmas cakes. I want a bushel of corn meal, please.

Uncle Sam: Here you are! Good-bye. Don't be in such a hurry next time.

(*Exit, Mexico*).

Uncle Sam: Now, Filipino!

Filipino: I've waited so long, I've forgotten what I came to get.

Uncle Sam: Cotton goods? hardware? machinery? Or——

Filipino: Hold on! I want a saw and hammer and same nails, too.

Uncle Sam: Did you bring me that hemp rope?

Filipino: Sure, here it is.

Uncle Sam: All right, thank you! Listen! If you come this way before wash day, bring me some indigo. Wash day is Tuesday, you know.

Filipino: All right! (*Exit*)

Enter Cuba

Cuba: I stopped by to leave that sugar you have been nagging me about. It is only a little, Uncle Sam, but a lot of other fellows have been getting it down home; and you know the new crop will not be ready before the first of the year.

Uncle Sam: Well, I'm sorry. All I can do now is to let my customers have a pound on Saturdays; and

even then they will have to buy a dollar's worth of goods to get that pound.

Cuba: Have a smoke?

Uncle Sam: I should say so! I never refuse a good Havana cigar. I'll give you an order right now for some tobacco goods. (*Hands him the order*) Now, please rush that material, Friend Cuba.

Cuba: Thank you for the order. While I need some machinery for my sugar factory, I'll come in to-morrow and tell you about it. Good-bye!

Uncle Sam: Wait a minute! Please don't forget that I want all the sugar and molasses I can get. They tell me your asphalt beds are the finest ever. Is that so?

Cuba: Well, I just naturally believe we are going to find the best in the world.

Uncle Sam: I am certainly glad. I'll get in on the ground floor on that, for I need plenty of asphalt.

Cuba: Good-bye!

Uncle Sam: Good-bye!

Uncle Sam: Well, Miss Columbia, I suppose we might as well close for the day. It is getting late now. (*Leaving, hums "Three Cheers for the Red, White, and Blue"*)

APPENDIX E

To make the references and bibliographies in this text most useful the publishers of important books are given. In most cases abbreviations have had to be used to avoid needless repetition. These abbreviations are explained in this appendix. The address given is the principal office of each firm.

(A. B. C.) American Book Company, New York City.
(Appleton) D. Appleton & Co., New York City.
(Cent.) Century Co., New York City.
(Dodd) Dodd, Mead & Company, New York City.
(D. P.) Doubleday, Page & Co., Garden City, N. Y.
(Dutton) E. P. Dutton & Co., New York City.
(Ed. Pub.) Educational Publishing Co., Boston, Mass.
(Flanagan) A. Flanagan Co., Chicago, Ill.
(Funk) Funk & Wagnalls Co., New York City.
(Ginn) Ginn & Co., Boston, Mass.
(Harpers) Harper & Brothers, New York City.
(Heath) D. C. Heath & Co., New York City.
(Holt) Henry Holt & Co., New York City.
(H. M.) Houghton Mifflin Co., Boston, Mass.
(Jacobs) George W. Jacobs Co., Philadelphia, Pa.
(Lane) John Lane Company, New York City.
(Lip.) J. B. Lippincott Co., Philadelphia, Pa.
(Little) Little, Brown & Co., Boston, Mass.
(Longmans) Longmans, Green & Co., New York City.
(Lothrop) Lothrop, Lee and Shepard Co., Boston, Mass.
(Mac.) The Macmillan Co., New York City.

(Oxford) Oxford University Press, American Branch, New York City.
(Putnams) G. P. Putnam's Sons, New York City.
(Rand) Rand, McNally & Co., Chicago, Ill.
(Scrib.) Charles Scribner's Sons, New York City.
(Silver) Silver, Burdett & Co., Boston, Mass.
(Wiley) John Wiley & Sons, New York City.
(Winston) J. C. Winston & Co., Philadelphia, Pa.

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THE COUNTRY LIFE PRESS, GARDEN CITY, NEW YORK