

find in Germany nowadays. It shows that the school which would regard the æther as a mere "physical space" has not yet captured all the Continental seats of learning. The further volumes are to appear at the rate of two per annum, and the list of forthcoming essays is distinctly attractive.

#### DISJUNCTIVE GEOGRAPHY.

*A Systematic Geography of America.* By G. W. Webb. Pp. viii+108. (London: Methuen and Co., Ltd., n.d.) Price 1s.

"THIS book—the fourth of a series of five—deals with the geography of the New World. As in the previous volumes, the treatment of the subject is on logical and modern lines, and the book will be found to contain the kind of information that candidates preparing for fairly advanced examinations in geography are now expected to acquire." Instances of the absence of modernity in the treatment are striking; for example, the rain of California is attributed to the north-east trades, without mention of its characteristic winter maximum, and in disregard of Buchan's maps on wind directions.

The space devoted to Argentina is the same as that given to Peru, and but one-quarter of that given to Canada. In view of the information which is accessible in the "Statesman's Year Book," the "Atlas of the World's Commerce," and the publications of the United States Government, the treatment of minerals in Mexico, the reference to cotton ports and to the trade of the United States ports on the Pacific, as well as the arbitrary division between the "wheat" and "maize" belts by lat. 42° N. are curious, and, on the whole, misleading. Mexico is first as to the production of silver, and produces copper, but not iron and tin to any extent.

Much is made of "Sea-island" cotton, but the total production of that variety is, roughly, 1/200th of the United States cotton crop, and stress is laid upon Mobile, Wilmington, Charleston, and Pensacola as cotton ports when really about three-quarters of the cotton exports go from Galveston, New Orleans, Savannah, and New York. On the Pacific coast Portland is suggested as of more importance than the ports on Puget Sound, when its trade is roughly only about one-third of that of the more northern ports. There seems hardly any excuse for the limitation of the "wheat" belt by latitude, especially as Wisconsin is named in large type, and the fact that in relation to area of land in the respective territories Pennsylvania is more important than Michigan is ignored.

On the whole the book contains many isolated facts, but surely modern ideas in geography demand a statement of facts in relation to each other; e.g. climate is discussed in an introductory chapter, and on the "wheat" belt the author writes:—"The winters in this region are very cold; the summers are warm, but not warm enough to ripen maize"; yet S. Dakota, Minnesota, Wisconsin, and Michigan produce annually over 200 million bushels of maize on the average. It appears that the defects are due to indiscriminate use of statements made in other textbooks.

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#### OUR BOOK SHELF.

*Laboratory Notes on Organic Chemistry for Medical Students.* By Dr. Paul Haas. Pp. viii+128. (London: Macmillan and Co., Ltd., 1910.) Price 2s. 6d. net.

It is generally recognised that a knowledge of organic chemistry is becoming more and more essential for the proper study of physiology and the medical sciences, but, on the other hand, the complaint is frequently heard that the curriculum of the medical student is becoming seriously overcrowded, and that science work is encroaching too far on the more professional studies.

The new syllabus of the second medical examination, part i., of the London University is the result of a compromise between these two points of view, and an attempt is being made to teach organic chemistry with special reference to its applications in physiology, pharmacology, and pathology, and while giving a sound elementary knowledge of the principles of the subject to illustrate them as far as possible by means of substances of importance in the animal economy.

The book under review covers the practical syllabus of the above examination, and we may say at once that it is a good book, though it suffers from the defects inherent in any work written for so special a purpose. The first half of the book contains a lucid and thoughtful account of the general methods of organic chemistry, illustrative methods of preparation, and the various quantitative exercises mentioned in the syllabus. The second half is devoted to qualitative tests for a number of substances of physiological importance; and the practical recipes for preparing these substances, many of which are expensive and difficult to obtain in the market, will be found exceedingly useful, particularly by those teachers who may not be specially familiar with biochemical methods. A sufficient account of the theoretical principle underlying the various exercises and tests is given, and, where possible, the bearing of the subject on the future work of the student is emphasised, so that he may realise that chemistry is not to be regarded merely as an examination subject, but rather as a valuable adjunct to his knowledge for the fuller appreciation of his clinical and other studies. The book will, we think, be useful both to students and teachers.

*Die Kalte: ihr Wesen, ihre Erzeugung und Verwertung.* By Dr. H. Alt. Pp. v+124. (Leipzig: B. G. Teubner, 1910.) Price 1.25 marks.

THIS little book is based upon a series of six lectures delivered in München during 1907 by the author. Dr. Alt has endeavoured to popularise the subjects of the production of cold and the physics of low temperatures so as to render them both interesting and useful to the beginner. No special knowledge of this particular branch of physics is assumed; a general intelligence and interest in natural phenomena is all that is expected of the reader. With this in view the author devotes the first two chapters to matter which finds a place in almost any elementary treatise on heat. In the first chapter the properties and laws of gases are discussed, and in the second, those of vapours, both being obviously necessary preliminaries to the appreciation of the remaining sections of the book.

The production of cold by means of the reversed heat-engine, together with descriptions of the various types of refrigerator, form the subject of the next chapter; the remaining three are concerned with the question of the liquefaction of gases. The different processes by which liquefaction has been secured are described in chronological order, starting with the earlier regenerative process and leading up to the