BOOK-REVIEWS.

Ptomaines and Leucomaines, or the Putrefactive and Physiological Alkaloids. By VICTOR C. VAUGHAN and FREDERICK G. NOVY. Philadelphia, Lea Bros. 12°.

PROFESSOR VAUGHAN and Mr. Novy have done the scientific world great service in collating the facts connected with ptomaines and leucomaines. The literature of the subject is abundant, but has been so scattered and so fragmentary that it was not available for reference. In the book before us a very complete historical sketch of the subject has been given, and for those who wish to consult the original articles which have appeared, a very excellent bibliography is provided. This work is more than a mere compilation. Professor Vaughan has done a large amount of original and valuable work in this branch of scientific research, and his views and methods are here given to the public. In the chapter devoted to the consideration of the foods containing poisonous ptomaines, the authors mention mussels, sausage, ham, canned meats and fruits, cheese, milk, ice-cream, and bread as having been proved at various times to contain poisonous alkaloids. These observations are made the more interesting by being accompanied with the details of the cases, and are of special value to the physician by reason of the detailed symptoms and progress of the illness. The relation of ptomaines to disease is fully discussed. The authors express the view that an infectious disease arises when a specific, pathogenic micro-organism, having gained admittance to the body, and having found the conditions favorable, grows and multiplies, and in so doing elaborates a chemical poison which induces its characteristic effects. In the systemic infectious diseases, such as anthrax, typhoid-fever, and cholera, this poison is undoubtedly taken into the general circulation, and affects the central nervous system. Among the methods of extracting ptomaines, those of Stas-Otto, Dragendorff, Brieger, Gautier, and Etard are described, and preference given to the Stas-Otto, recognizing, however, that this method is not perfect.

Several chapters are devoted to the leucomaines, or those basic substances which are found in the living tissues, either as the products of fermentation changes or of retrograde metamorphosis, as distinguished from ptomaines, or those which are formed during the putrefaction of organic matter. The closing chapter, on the pathological importance of the leucomaines, is full of suggestion to the practising physician. The authors truly say that while the medical profession has been giving much time, attention, and energy in recent years to the study of infectious diseases, it has too much neglected a large and important class of ailments which arise within the body itself, and which may be called autogenous. They believe that the individual may be poisoned by his own excretions, and that bilious attacks, attacks due to torpid livers, etc., are due to the absorption into the general circulation of peptones which are formed faster than the liver can convert them into globulin, and that they act as poisons, or that poisonous alkaloids are formed and absorbed. The opinion is expressed that ordinary colds are due to the retention of certain effete matters which are normally excreted by the skin, and that fevers are often produced in the same manner. This chapter alone is worth the price of the book to the practising physician.

Longmans' School Geography. By GEORGE G. CHISHOLM. London, Longmans, Green, & Co. 12°. $1.05.

Elementary Physiography. By JOHN THORNTON. London and New York, Longmans, Green, & Co. 12°. 80 cents.

THE endeavors of the Royal Geographical Society of London to improve the methods of teaching geography have resulted in the publication of a great number of text-books, among which Chisholm's work is one of the earliest. The author has adopted the methods of teaching in use in Germany, and followed to a certain extent the models of Wagner's and Supan's geographies. We recommend his book to teachers as suggestive of a good method of teaching geography. It is of particular value on account of the numerous references to an introduction treating mathematical and physical geography. The book contains very few names and figures, but describes the character and productions of the various countries that are discussed briefly. The facts are as a rule accurate, although a few errors occur. The author emphasizes in his preface that to teach geography adequately the aid of maps is necessary, and therefore many portions of the book must be considered hints to the teacher, not full descriptions of the countries treated. Undoubtedly the present book will be a valuable help to finding a satisfactory method of teaching geography.

Another attempt to improve the methods of teaching geography is Thornton's 'Elementary Physiography.' It does not cover the field of descriptions of countries, but the author treats in a very satisfactory way the problems of physics as applied to the phenomena of our planet. The author has followed the lines of the recast Syllabus recently issued by the Science Department, South Kensington. We believe that the method advocated in this book and in the new Syllabus is capable of the most satisfactory results in the hands of a skilful teacher. If applied consistently, it will lead to the teaching of the various branches of science by observation of the phenomena of nature. It is evident that the teaching of geography on the methods advocated by Geikie and others must necessarily include the teaching of physics, chemistry, botany, zoölogy, and geology, and that it is only a change of name if we call it physiography. All attempts to improve the methods of teaching geography have followed these lines, and we do not doubt that it will finally result in a re-organization of the methods of teaching science. The great advantage of the new method is its being more concrete than the old one, educating the child to observe the phenomena among which it lives, instead of beginning with the experiment. This is, at the same time, a valuable counterbalance against the one-sided training of the faculty of reasoning to which the teaching of science easily leads; the observation of life being a powerful means of educating the love of nature and the feeling of the child. It is principally from this point of view that we welcome Thornton's book, which first discusses physical laws and then applies them to geographical phenomena. From what we have said above, it will be clear that we should prefer the reverse arrangement; but the teacher will, of course, be able to use the book as well in applying physical laws to phenomena as in finding the laws by studying the phenomena. The descriptive part of geography as treated in Chisholm's book ought to be the subject of the teaching of geography proper, which assumes the knowledge of the general laws of physiography. If we define geography in this way, it will be understood that it can best be taught in connection with history, as it treats of countries and their inhabitants. We wish that general anthropogeographical statements were excluded altogether from school-books, as they are always misleading, and promote a superficiality in the way of treating historical and political questions which ought to be avoided. The influence of a country upon the development of its inhabitants is most satisfactorily treated in teaching its history. Chisholm's and Thornton's books will help to remodel the teaching of geography and science so as to make them important branches of our systems of education.

NOTES AND NEWS.

THE quarantine act approved by the President last week provides for the immediate establishment of eight new federal quarantine stations at the following points: one at the mouth of Delaware Bay; one near Cape Charles, at the entrance of Chesapeake Bay; one on the Georgia coast; one at or near Key West; one in San Diego harbor; one in San Francisco harbor; and one at or near Port Townsend, at the entrance to Puget Sound. The aggregate sum appropriated for the establishment and maintenance during the present fiscal year is $511,500. This extension of the national quarantine service is certain to give the country much better protection than it has ever had against the introduction of infectious diseases.

— William A. Croffut, who has been appointed executive officer of the Geological Survey, in the place of the late James A. Stevenson, is a well-known journalist. He is a man of great energy and an unbounded capacity for work, and will undoubtedly fill with success the difficult position in which he is placed. He has a taste for scientific investigation, and has lately given much attention to the subject of hypnotism, both studying its philosophy and making practical experiments. Mr. Croffut's appointment is especially gratifying to the journalists of Washington, with whom he is very popular.