suggestions is likewise given for laboratory work, but in no sense detailed laboratory directions; they concern hints for handling material which is not everywhere used for study. One of the most important things about the book is the etymological explanations of the meaning of technical terms, to be found throughout the text, while at the back is a well-selected glossary-index in one. There are some minor errors here and there, as the spelling of Robert Hooke's name as Robert Hooker, amyolitic for amylolytic, but these are few. The reviewer parts company with the author in regard to the prominence of amitosis in the light of the work of recent research in hydroid, cestode, pathologic and other departments; I do not believe that it is sufficiently emphasized that nutrition is the same in photosynthetic forms as in holozoic organisms, but that the difference is in the *obtaining* of nourishment, the one from inorganic substances, the other from foods ready formed. In the chapter "The Relations of the Chromatin to Heredity," the author thinks that it is "almost incredible that there can be in such a small compass the traits of characters which an individual transmits to its offspring." I think likewise and I do not believe that such is the case, but that the chromatin is a *determiner* of these traits, in the sense of Johanssen; unless this matter is presented to the beginning student in clear epigenetic terms, the whole matter will automatically reduce itself to a *reductio ad absurdum* in his mind.

The book is a strong argument for the biological Monroe Doctrine—biology for the biology classes. The discovery that animals and plants are built upon the same general plan and are in reality different aspects of the same thing is nearing a century in age, yet we teach the subject as if plants and animals were entirely disparate, and that there are no phenomena in common. The introductory course in physics and in chemistry aims to be general and to treat the science as a whole. It is as logical for the chemist to introduce his beginning students to organic chemistry, as for the biologist to make his elementary course mere botany or zoology. It is as futile to argue that no man can teach biology because he can not be a good botanist and a good zoologist at the same time as to assert that the teacher of physical chemistry can not be successful because he can not be both physicist and chemist: the point is that he is neither, he is a physical chemist, as the biologist should be a biologist. Professor Conn has given ammunition to the advocates of courses in general biology for beginning students.

M. M.

Handbook of Mental Examination Methods. By Shepherd Ivory Franz, Ph.D. New York, 1912. Nervous and Mental Disease Monograph Series No. 10.

Dr. Franz's volume adds another to the several recent handbooks of psychological methods and, as from a psychiatric angle, an addition quite worth making. It is an account of the simpler experimental methods to be used in the study of mental affections. The ground covered is the usual field of psychological experimentation, with a few special chapters, as one on Speech and Aphasia. The experimental methods described are taken somewhat from the literature, but are also largely the author's own, and in some of these latter instances it appears as though the field should have been more thoroughly gone over with reference to the work of others along similar lines. As to the single experiments described, the critic will appreciate that some experience with them is necessary to estimate their value for clinical purposes. Under Sensation are described the simple procedures with which most of us are familiar, though the methods of pain-measurement seem to be regarded as more objective than is the case. The reflexes and automatic acts are nearly passed over in the chapter on movement, though Franz has himself contributed to our knowledge of their pathology. Only the simpler methods are described for the observation of motor speed, accuracy, etc. The chapter on aphasia does not deal with experimental methods, but aims at sound guidance to clin-

ical analysis. Much experimental material follows under the titles of attention, apprehension and perception, while the need for the special understanding of the immediate meaning of these words is recognized and met. Clinical methods have had a relatively large share in the development of experiment along these lines. As in other cases, the chapter on memory leaves the reader with a decided *sentimental d'incomplétude,* but the clinician should find very convenient the samples of material for the different sorts of memory tests. The work of Kent and Rosanoff has due recognition in the chapter on association, though not the work of the Zurich school, which is the opposite of the usual case. Some simple material which can be used for calculation tests is also presented. Under the "Time of Mental Processes" are discussed various forms of sorting tests, also of the *A*-test, these latter apparently all of Franz's own devising, though several other forms are extant. The remaining chapters are of an observational rather than experimental bearing, but are very useful in their present relation, especially the scheme of general examination, which is an excellent groundwork. In closing, there are described the elementary statistical procedures which the clinical observer might have occasion to use.

It is evident that to adequately write a book of this sort one must have the clinical viewpoint continually in mind and keep it continually in the reader's mind; the author has accomplished this better than other writers of similar books who have been physicians. The commentaries, both general and on the special tests presented, should be an exceedingly useful complement to the meager training in psychology which the younger physicians in our mental hospitals have usually received; it is for their hands that the book seems intended, and for whom it should perform its most useful work. The reference lists, however, are ill-proportioned and too condensed. The book is clear and very practical within certain limits, but it is not as good a book as its author should have written. F. L. W.

Building Stones and Clay-Products: A Handbook for Architects. By HEINRICH RIES. New York, John Wiley & Sons; London, Chapman and Hall, Limited.

THE work under the above title, comprising upwards of 400 pages, is acknowledgedly an attempt to prepare an elementary treatise on the subjects mentioned for the benefit of the students in the College of Architecture of Cornell University and for architects in general.

The first 250 pages of the work are devoted to building stones, the remainder to clay and clay-products. In attempting to cover so much ground within a limited number of pages much has to be omitted, and the question naturally arises if the subject does not suffer by such condensation to the extent of largely losing its value. The portion devoted to stone contains nothing that is not to be found in other easily available works and its usefulness must depend largely upon the method of arrangement of the subject material. The second portion is little more than an abbreviation of what the author has already included in his well-known work on "Clays, Their Occurrence, Properties and Uses." The subject is one on which the writer is acknowledgedly an authority.

The numerous illustrations are for the most part well selected and executed. A very good bibliography, glossary and index accompany the work.

A few minor errors are observed, as in the credit to Merrill on page 49, and to Watson on page 50. These are, however, comparatively immaterial matters.

GEO. P. MERRILL

SPECIAL ARTICLES

THE RELATIONSHIPS OF THE CHESTNUT BLIGHT FUNGUS

THE writer was the first to question the identity of the chestnut blight fungus, *Diaporthe parasitica* Murrill. In the 1908 Report of the Connecticut Agricultural Experiment Station he said:

We are not yet sure that *Diaporthe parasitica* has not been collected before under some other