All considered, however, this book is the best manual on its special subject in the English language, possibly in any language. It is certain to take its place upon the reference shelves of every American food laboratory.

Wm. Frear.

State College, Pa.

Psychology. By James Rowland Angell. New York, Henry Holt and Co. 1904. Pp. vii + 402.

No one, perhaps, is better fitted to unite in a text-book the standard 'general' psychology which James' 'Principles' represents and the results of recent experimental studies, than the author of this book. The addition of comments from the so-called 'functional' point of view will also be welcomed by the majority of qualified teachers of psychology. We feel the gratitude and satisfaction which are due to a thoroughly capable thinker who gives us a solid, careful and, so far as is desirable in a text for students, original book.

There is no need to note in detail the many excellent features in content and form or the few cases of questionable facts and methods of presentation. Every reader of this journal who is interested in the teaching of psychology should read the book itself. I choose, therefore, to comment on more general issues which it suggests.

Is it wise to divorce the experimental method from the facts of general psychology? Professor Angell's book, like other recent books for beginners, gives no sign that the student is to make any observations systematically or under the conditions of an experiment. It encourages the student to rely on reflection alone—or still worse, on mere memorizing.

Again, is it wise to follow Royce and Stout in choosing the style of the man expressing his own processes of reflection and argument rather than the crisp and objective, if somewhat bald, style of the text-book in physical science? The words *we, us* and *our* occur in this book apparently over three thousand times. A bald fact like 'If sense organs are stimulated, *objects,* rather than mere qualities, are felt,' appears as, "When our attention is called to the fact, we readily notice, as was intimated earlier in the chapter, that if our sense organs are stimulated, we are commonly made conscious of *objects,* rather than of mere *qualities,* such as we have been describing in this chapter" (p. 118).

Does the so-called 'functional' point of view possess any messages of actual fact for the student other than these: (1) That mental life involves not only the existence of thoughts and feelings, but also their connections among themselves and with physical events, and (2) that mental states and their connections have been subject to natural selection? The reviewer is probably wrong, but he finds many of the comments of Professor Angell and others strangely like pure teleology or mere verbalisms. At times they seem even to attempt to explain the origin of variations (at best a ticklish business) by some inner necessity that a need should create its own satisfaction. Are such statements as the following empirical science and, even if they are, will they develop a scientific attitude in students? "Straightway appears consciousness with its accompanying cortical activities, taking note of the nature of the stimulus and of the various kinds of muscular response which it called forth" (p. 51). "Consciousness appears in response to the needs of an organism * * * consciousness brings order out of this threatened chaos" (p. 52). "The organism contains within itself certain *ends* to be attained in course of development by adjustive activities. In part these ends exist imbedded in the physiological mechanisms, where they come to light as reflex, automatic and instinctive acts, sometimes accompanied by consciousness; and in part they exist as conscious purposes, in which case they appear as recognized intentions" (pp. 75–76). "Left to itself, any mental condition would convert itself at once into some kind of muscular movement" (p. 310). "We have already noted its [emotion's] appearance under conditions of stress and tension requiring new conscious coordinations in order to permit progress, and we have connected this fact with the service of emotion as a general monitor re-

porting friction and the need of additional intelligent supervision" (p. 327).

EDWARD L. THORNDIKE.

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for January contains the following articles: 'The Habits of the Striped Meadow Cricket (*Œcanthus fasciatus* Fitch),' Joseph L. Hancock; 'The Embryo of the Angiosperms,' Harold L. Lyon; 'Notes on the Commensals found in the Tubes of *Chætopterus pergamentaceus*,' H. E. Enders; 'On the Larva and Spat of the Canadian Oyster,' Joseph Stafford; 'A Table to Facilitate the Determination of the Mexican Scale Insects of the Genus *Aspidiotus* (Sens. latiss),' T. D. A. Cockerell, besides reviews and notes.

The Popular Science Monthly for March has papers on 'The Bermuda Islands and the Bermuda Biological Station for Research,' Edward L. Mark; 'A Study of the Development of Geometric Methods,' Gaston Darboux; 'Some Present Problems of Technical Chemistry,' W. H. Walker; 'Stamina,' A. N. Bell (dealing with the prevention of tuberculosis); 'The Natural History of Adolescence,' Joseph Jastrow; 'Higher Education of Women and Race Suicide,' A. Lapthorn Smith; and 'Simple Bacteriology for Public Schools,' Lillian Chapin. There are also shorter articles, including one, illustrated, on 'The Inland White Bear,' by W. J. Holland, and another on 'The Carnegie Institution.'

The Museums Journal of Great Britain has a most excellent paper, with valuable discussion appended, on 'Museums and Nature Study,' by Frank Woolnough. The question of lectures by the curators is touched upon and the suggestion made that the nature teaching may best be restricted to the life and geology of its immediate locality. S. L. Moseley tells 'How we made the Keighley Museum Popular,' and in the discussion special stress was laid upon the educational value of museums and the many things a curator is called upon to do. As Dr. Haddon said, 'the curating of a museum is hard work,' the more that like an iceberg it was seven eighths below the surface and none but those who knew realized the extent of the unseen seven eighths. The balance of the number is filled with reviews and notes.

THE contents of *The Journal of Infectious Diseases* for March are as follows:

HARBITZ, FRANCIS: 'Studies in the Frequency, Localization, and Modes of Dissemination of Tuberculosis, with Special Reference to its Occurrence in the Lymph Nodes and During Childhood.'

HEKTOEN, LUDVIG: 'Experimental Measles.'

NOVY, FREDERICK G., and MACNEAL, WARD J.: 'On the Trypanosomes of Birds.' (With Plates 1–11.)

WHERRY, WILLIAM B.: 'Some Observations on the Biology of the Cholera Spirillum.'

MUSGRAVE, W. E., and CLEGG, MOSES T.: 'Amebas: Their Cultivation and Etiological Significance.' (With Plate 12.)

MCCLINTOCK, T. C., BOXMEYER, CHARLES H., SIFFER, J. J.: 'Studies on Hog Cholera.'

THE London *Times* has established an engineering supplement to be issued weekly. The first number, which appeared on March 1, contains articles on 'British Engineering,' by Sir Charles McLaren; 'Submarines,' by Sir William White; 'The Motor Omnibus,' by C. W. B. Little, and numerous other articles and notes.

SOCIETIES AND ACADEMIES.

THE NEW YORK ACADEMY OF SCIENCES.

SECTION OF ANTHROPOLOGY AND PSYCHOLOGY.

THE section met in conjunction with the New York Section of the American Psychological Association on January 30, afternoon and evening. Professor Woodbridge presided. The following papers were presented:

Color Preferences: R. S. WOODWORTH and FRANK G. BRUNER.

Tests of different races, made at the St. Louis Exposition, showed that red was the color most often preferred, both by men and by women, and by all the races tested. The predominance of red choices was very great. Now previous authors have found, in the white race, that red was a woman's choice, but blue that of most men; this difference of result, as between the present and previous authors, is