SCIENCE

FRIDAY, NOVEMBER 17, 1899.

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MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

*THE EARLY PRESIDENTS OF THE AMERICAN ASSOCIATION.**

III.

GOULD.

Gould† was born in Boston in 1824, and was graduated with honors at Harvard twenty years later. He then went abroad and for four years studied under the most distinguished astronomers of Europe, but chiefly under the great Gauss, in Göttingen, where he received his doctor's degree.

In 1848 he returned to Boston, and there —a little more than half a century ago— began the publication of the *Astronomical Journal*, the first and still the only distinct periodical of that science devoted to original investigation in this country.

Then came his valuable connection with the Coast Survey, during which he had charge of the longitude determinations, and subsequent to the laying of the Atlantic cable in 1866, he connected the two continents by precise observations. These first determinations of transatlantic longitude by telegraph were the means of establishing a connected series of longitude measurements from the Ural Mountains to New

* Address of the Vice-President and Chairman of Section I of The American Association for the Advancement of Science, Columbus Meeting, August, 1899.

† See sketch with engraved portrait on wood in *Popular Science Monthly*, Vol. XX., p. 683. March, 1882.

This guide consists of an 'Introduction' of four pages on instruments and general directions followed by eleven pages on the 'Elements of Histology' and 269 pages on the various groups and types of animals.

The list of animals named for special study represents 76 genera and 83 species—a list that indicates the author tried to live up to the statement in the preface that the zoological laboratory of to-day does not simply offer a few local types for dissection, but rather constitutes a practical 'Repetitorium' of the fundamental facts of zoology.

The work is divided into 20 'courses' distributed among the nine phyla recognized as follows: Protozoa (pages 15), Platodes (7), Echinodermata (21) and Tunicata (14), each one course; Vermes (Bryozoa, Chætognatha, Annelida) (28), Mollusca (37) and Arthropoda (29), each two courses; Cœlenterata (43) four courses and Vertebrata (76) five courses. The first course is devoted to Elements of Histology.

Each course or group of courses is preceded by a 'Systematischer Ueberblick' of the phylum in which the classification is carried out to the orders and suborders. In this systematic epitome each category is more or less briefly characterized and one or two representatives are noted under each order or suborder. This is followed by a bit of technique, this by a general survey and this by the 'special course.' The treatment of the Coelenterata may serve as illustration of the plan. In this group the order is as follows: (1) 'Systematischer Ueberblick' of courses 3–6, (2) 3 Kursus (pp. 34–43). (3) Porifera. 'Technische Vorbereitungen.' (4) A. Allgemeine Uebersicht. (5) B. Specieller Kursus. (6) 4 Kursus (pp. 43–55). Hydroidpolypen. Technische Vorb., etc., as (4) and (5). (7) 5 Kursus (pp. 55–65). Tech., etc. (8), 6 Kursus (pp. 66–73). Anthozoa, Tech., etc. The general account of the phylum is brief and the 'special course' is a running account of the anatomy of the laboratory specimen with directions for dissection introduced whenever deemed necessary.

The reviewers experience is not favorable to the introduction of systematic and general surveys into a laboratory guide, and why a general account of a phylum should be preceded by a special technique is not clear to him. There are sound pedagogical reasons for logical order and for keeping a laboratory guide to its business.

As a laboratory guide for a beginner the book is not detailed enough and can hardly stand with such guides as those of Marshall and Hurst, Parker and others in English.

The illustrations, of which there are 172, are as a rule good. Quite a number of them, about 75, are original. Some of these could be improved. Figure 152, for example, would hardly assist a beginner in his search for the uterus or the bladder of the frog. It would also be uncertain work for a beginner to identify the ovary of a young frog either by the figures or the descriptions. On the whole, however, the original figures are good and welcome. The typographical work is of course neat, clean and agreeable —for it comes from the establishment of Gustav Fischer.

Henry F. Nachtrieb.

BOOKS RECEIVED.

Leçons de chemie physique, professées à l'université de Berlin. J. H. Van't Hoff. Translated from the German by M. Corvisy. Second Part, *La statique Chemique.* Paris, Hermann. 1899. Pp. 162.

Leçon nouvelles sur les applications géométriques du calcul différentiel. W. De Tannenberg. Paris, Hermann. 1899. Pp. 192.

Recherches expérimentales sur les oscilations electriques. A. Turpain. Paris, Hermann. 1899. Pp. 152.

Biological Lectures from the Marine Biological Laboratory, Wood's Holl, Mass. Boston, Ginn & Co. 1899. Pp. 343.

Animal and Plant Lore. Fanny D. Bergen. Boston and New York, published for the American Folk-Lore Society by Houghton, Mifflin & Co. 1899. Pp. 180.

Evolution by Atrophy. J. Demoor, J. Massart and E. Vandervelde, translated by Mrs. Chalmers Mitchell. New York, D. Appleton & Co. 1899. Pp. xiii+322.

SCIENTIFIC JOURNALS AND ARTICLES.

The principal article in the *National Geographic Magazine* for November is on 'The Alaskan Boundary,' originally given as a lecture before the National Geographical Society by Hon. John W. Foster, ex-Secretary of State, and at present a member of the Joint High