37 pages. All the old, threadbare opinions and speculations that have formed the staple of embryological literature for the last twenty-five years are tediously passed in review—only once more to reject the gastrula theory, a conclusion already reached by so many writers that it would be tiresome merely to cite their names.

The germ-layer definition is 'analyzed,' by which is meant more empty surmising. Finally the reader, if he has not long since lost interest in the protracted discussion, is rewarded by a sort of diversion on 'physiological morphology,' where more commonplace and vacuity are in order.

When morphologists, on the slender basis of a few, new, trivial histological details, can trespass on the time of their fellow-workers to the extent of 174 quarto pages of antiquated discussion, it is, indeed, time to fly from such company and seek new fields where the length of a contribution may be expected to bear some relation to the importance of the discoveries. T. H. M.

Biological Laboratory Methods. By P. H. MELL. Pp. xii + 321. New York, The Macmillan Co. 1902.

It is difficult in a brief statement to do justice to the work of Dr. Mell. We may, however, find the task simplified when we realize that a very considerable amount of the space is devoted to the 127 figures, many of large size, almost all of which are taken from the catalogues of dealers in laboratory and microscopic supplies, and in other apparatus more or less pertinent to the needs of the biologist. Indeed, the addition of an appendix containing a list of prices would have rendered the publication of catalogues by these dealers for some time hereafter a work of gratuity.

For the rest of the book—say sixty per cent. —it may be said to contain a detailed account of a large number of photographic and microscopic apparatus and methods for most of which the beginner in biology—for whom the work is intended as a text-book in a strict sense—will scarcely have use. The same may be said of the very numerous directions for the preparation of tissues. It is remarkable in such a text-book, the rationale of which is to enable the beginner to 'build only the foundation' of biological study, that the for him more simple and useful methods of making simple microscopic preparations of fresh tissues are chiefly omitted. But, of course, we are rapidly passing beyond the pitiable simplicity of ante-microtomic days. The young student of nowadays will, with Dr. Mell's book, get an elaborate knowledge of chromatic aberration and numerical apertures. He will then devote himself to a careful and somewhat exhaustive study of microtomes, following which he will address himself to the numerous special methods of killing, hardening, clearing, imbedding and the like, and of photography, bacteriological methods, injection, maceration and polarization in the order named. The student, having mastered these things, will then presumably be ready for the study of biology in the narrower sense, that, namely, of plants and animals themselves. F. E. LLOYD.

Oeuvres Complètes de J.-C. Galissard de Marignac; Hors-série des Mémoires de la Société de Physique et d'Histoire Naturelle de Genève. Geneva, Ch. Eggiman et Cie; Paris, Masson et Cie, et al. Vol. II. 4to. Pp. 840.

This volume completes the admirably executed reprint of the researches of the great Swiss chemist, the first volume of which was reviewed by SCIENCE on January 16, 1903 (p. 111). The final volume contains Marignac's most important memoirs on atomic weights, a number of interesting and clear-sighted papers concerning various rare elements, several critiques and many papers upon physico-chemical subjects, including his important researches on the specific heats of solutions. At the end is a list of the atomic weights determined by Marignac, in parallel column with the 'International' values of 1903—a comparison which redounds greatly to Marignac's credit. A classified index covering both volumes completes the collection, leaving nothing to be desired. The editor, M. E. Ador, is much to be congratulated on the success of his work.

THEODORE WILLIAM RICHARDS.