venient form the principal topographical facts of human osteology. Its author is already favorably known by an excellent treatise on human anatomy, from which about one-half the illustrations of the atlas are taken. These again are many of them copied from older works.

A compilation made on this plan is necessarily somewhat lacking in artistic effect, and has not the unity that would be secured by a set of original drawings made by a single hand, and embodying a well conceived plan of instruction. There is no settled scale of representation, some of the bones being drawn full size, while others are not more than one-eighth of that and quite too small to show detail effectively. No statement of scale is made in any case, so that the learner is left in doubt as to the size of the object represented. Some of the illustrations appear unnecessary, while many important gaps occur.

For instance, the only example of internal bone architecture shown is a well-known figure of the head of the femur, and this, although said to be drawn from a photograph, is incorrect. The difficult sphenoid is very inadequately treated, its development, so important from a morphological point of view, being wholly omitted. In fact, there is no attempt to show the development of any of the cranial bones but the temporal, and that is not wholly satisfactory.

It is, of course, quite conceivable that Prof. Debierre should think proper to omit morphological subjects from an elementary work, but, why, in that case, should he give a scheme of a theoretical vertebra that will be wholly unintelligible to a beginner without adequate explanation, and devote three figures to Albrecht's rather doubtful theory of the constitution of the superior maxillary bone? Surely a figure might have been spared to show the difference between the primordial, or cartilaginous cranium and the secondary, or membranous one.

The merit of the book lies in its cheapness and availability. While by no means reaching the first rank, it will doubtless be useful to those who cannot purchase the expensive treatises of Testut and Poirier, and in convenience will far exceed those admirable works.

FRANK BAKER.

Catalogue of the Marine Mollusks of Japan, with Descriptions of New Species, and Notes on Others Collected by Frederick Stearns. By HENRY A. PILSBRY. Detroit, F. Stearns. 1895. viii+196. Pp.,8°. XI Pl.

This work has grown out of the collections made by Mr. Stearns, personally or by deputy, 1889–92, in Japanese waters, and which were submitted for identification to Mr. H. A. Pilsbry. It consists of three portions: a list of marine mollusks which have been stated to inhabit Japan, from Yezo to Kiushiu, with references to description or figures of most species, and an enumeration of the special localities at which each species has been found by previous naturalists or by Mr. Stearns. This is followed by a catalogue of the Inland Mollusks taken by Mr. Stearns in Japan, and, finally, by a list of mollusks obtained by that gentleman from the Loo Choo Islands. The work is concluded by an index of genera and sub-genera, and explanations of the eleven very excellent plates. Forty species and eight varieties believed to be new are described. The total number of Japanese marine mollusks, excluding those from the Loo Choo Islands, is about 2400, of which 36 are Cephalopods, 17 Pteropods, 1700 Gastropods and 650 Pelecypods. This is a fauna, nearly twice as great as that of the entire east coast of North America, a comparison which gives a vivid idea of the richness in molluscan life exhibited by the Japanese waters. It is probable that the discrepancy is still greater than these figures would indicate, since the dredge has been much more generally used on the American coast, and there are probably many species yet to be discovered even in the shallow waters of Japan.

The literature of Japanese mollusks is a good deal scattered, in spite of the magnificent publications by Lischke, Dunker, Schrenck and von Martens. This is illustrated by the fact that this work enumerates about five hundred more marine mollusks than the latest monograph by Dunker. Students are, therefore, greatly indebted, both to Mr. Stearns for the liberality which made it possible and to the careful work of Mr. Pilsbry, who has brought together the data for the comprehensive catalogue under review. The printing of the text and the execution of the plates are all that could be desired. Beside

mollusks, thirty species of brachiopods are enumerated, the richest recent brachiopod fauna known, and it may be added that Mr. J. E. Ives has given an account of the Echinoderms, Crustacea and Pycnogonida collected by Mr. Stearns, in the Proceedings of the Academy of Natural Sciences, Philadelphia, for 1891.

W. H. Dall.

ACADEMIES AND SOCIETIES.

THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY.

The members of the New York Section of the American Chemical Society dined at Morrello's, on 29th street, on the evening of the 6th inst., and from there adjourned to the College of the City of New York, 23d street and Lexington avenue, for the regular monthly meeting. This meeting was held in the lecture room of Dr. Doremus, to which the Society had been invited by that well-known chemist, and Dr. Webb, the president of the institution.

The meeting was called to order by Prof. P. T. Austen, and after the reading of the minutes of the last meeting, Dr. C. A. Doremus welcomed the Section to its new quarters, and recounted a brief history of the room and the adjoining laboratories, which are now the oldest rooms in the city devoted to chemical research and instruction. Dr. Wolcott Gibbs, now of Newport, and formerly of Harvard College, was one of the earlier instructors and investigators working in this place.

On motion, the thanks of the Section were extended to Dr. Webb and Dr. R. Ogden Doremus for the courtesy and assistance extended in these comfortable and commodious quarters for the Section's work.

The first paper on the program was that of Dr. P. R. Moale, chemist to the New York and Boston Dyewood Company, entitled, 'A Brief History of Naphthalene.' This brief history proved to be an exhaustive statement of the progress of the development of naphthalene from its first separation by Garden in 1820 from the scale of the condensing vessels used in the distillation of coal tar, believing it to be camphor or something similar thereto, through the work of Faraday, begun in 1826, Reichenbach, in 1831, to the later work of Dumas, Liebig, Wohler, Stas, Mitscherlich and Laurent, De Saussure and others.

Passing from the history of the formation and occurrence of this body, the reader took up the composition of the compound, presenting results of analyses by the several noted authorities.

Opperman's result	$C^{20}H^{3}C^{2}H^{2}$
Liebig and Wöhler	$C^{20}H^{3}C^{3}H^{3}$
Berzelius	$C^{10}H^{4}$
Laurent	$C^{10}H^{4}$ or $C^{46}H^{16}$
Faraday	$C^{20}H^{3}$
Dumas	$C^{40}H^{16}$
Dumas and Stas	$C^{30}H^{16}$

The reader then took up the constitution of the compound. Beginning with the investigations of Kolbe and Marignac in this regard he discussed the results obtained by Berthelot, Ballo, Graebe, Liebermann, Arnheim, Wreden, Claus, Baeyer and Perkin, Fittig and Erdmann, Bamberger; and from which it has been shown that the formula established by Graebe is that which must at present be accepted as nearest the truth.

In the discussion which followed, of the theoretical constitution of naphthalene, Mr. H. S. Neiman was called upon, and gave his experience in attempting the synthetic preparation of naphthalene for the purpose of throwing light on its constitution. He stated that the decomposition of certain amido-naphthal-sulpho-acids having a tendency to show that the position of the double bonds in the naphthalene ring are not symmetrical, attempts were made to disprove this by the synthetic production from ortho-xylene-tetra-bromide and ethane. By passing ethane over a heated mixture of granulated pumice stone and ortho-xylene-tetra-bromide, a portion of naphthalene was formed, but circumstances prevented further investigation. This formation would seem to show that the central bond is a double one, and the formula a symmetrical one as far as the bonds are concerned.

The second paper on the programme, that of Dr. T. B. Osborne, of the Agricultural Experiment Station at New Haven, Conn., on 'Vegetable Proteids,' is an exhaustive resumé of the classic work of the author upon these interesting and really little known bodies. He reviewed first the earlier investigations of these compounds, particularly those of Einhof, Berzelius, Dumas and Cahours, Ritthausen, Weyl