found in summer riding on the weaker sex. Among the Bryozoa, treated by the same author, we find the beautiful *Membranipora membranacea* var. *erecta*, which is very common in brackish water in Holland.

Echinoderms and tunicates must be passed here for lack of space. Dr. Redeke's account of the fishes will be of special interest, not only to ichthyologists, but also to others, for here the different zones of salinity are separately described. Last comes Prof. Max Weber, who treats of ten species of cetaceans, of which specimens of all but one, the common Phocæna, have stranded on the banks of the Zuiderzee at different times.

A systematic index, more than eight pages in three columns, increases the utility of this important monograph of a brackish-water area.

W. G. N. VAN DER SLEEN.

Geology for Canadian Students.

Elementary Geology: with special reference to Canada. By Prof. A. P. Coleman and Prof. W. A. Parks. Pp. xx+363. (London and Toronto: J. M. Dent and Sons, Ltd., 1922.) 15*s*. net.

THE issue of treatises on general geology specially adapted to readers and observers in the units of our federal commonwealth is a sign of healthy autonomy in the domain of natural history. Colleges in the Dominions have long been troubled with the details of the English Oligocene, a poor thing at the best, or the Llandovery sequence on the Shropshire border. Aspirants in South Africa have been well served by Mr. A. L. Du Toit's "Physical Geography" and Prof. E. H. L. Schwarz's "South African Geology," since the latter includes a short general introduction to the science.

Profs. A. P. Coleman and W. A. Parks of Toronto now provide Canadian students with a sound elementary text-book based primarily on what may be seen in Canada or in the adjacent United States. The account of the Grenville and Keewatin series, the former consisting of altered shales (garnet-sillimanite gneisses) and crystalline limestones, and the latter of volcanic tuffs and lavas, is very valuable for European students who wish to realise the nature of the oldest known rocks revealed to us in the accessible crust. The eastern series, the Grenville, may prove to be somewhat older than the Keewatin of the west; but both are invaded by the great batholitic intrusions which have given rise, often by interaction with their surroundings, to what may still be styled the Laurentian gneiss. Prof. Coleman's work among the glacial beds of early Huronian age adds greatly to the interest of the pages on Pre-Cambrian rocks.

While European types of fossils are in places very justly figured, such as the Jurassic Trigonias and ammonites of England, we are introduced to the Cambrian trilobites of British Columbia, to Devonian fishes from Canada described by Traquair and Whiteaves, to the Permian reptile Dimetrodon of Texas, with its amazing dorsal spines, and to a Lower Cretaceous Stegosaurus from the province of Alberta. The Cainozoic era, styled also in this book the Tertiary period, is dealt with slightly; yet the thicknesses of its strata in many localities show that its duration was equal to that of Mesozoic times. The spelling "Cenozoic," adopted by the authors, though it follows Lyell's nomenclature of the systems, is etymologically misleading and should be synonymous with azoic. We greet on p. 353 an ancestor of the national maple leaf, culled from interglacial deposits in Toronto.

The book is finely printed and is handsomely illustrated throughout. Too much may have been attempted in one volume, and the definitions of divisions of the animal and vegetable kingdoms on pp. 155-160 are necessarily unsatisfying and incomplete. Some of these divisions are further treated in the chapters on stratigraphy; but where are the radiolaria, which have a significance as rock-formers? Five or six pages more would have made the description of mineral characters almost adequate. As it is, we have a not too accurate summary of the crystallographic systems (the principal axis, for example, in the tetragonal and hexagonal systems is said to be "long"), while we are led to suppose that quartz is hexagonal. Are the micas, again (p. 12), of different crystal systems? "Mont Pelée," an error sanctioned by Angelo Heilprin, appears under the fine photograph on p. 54. These are small details, and to point them out implies that we know that new editions will be required, and that the next one will still further enlighten us by the possession of an index.

GRENVILLE A. J. COLE.

Mental Athleticism.

Principles of Psychology: the Foundation Work of the Alétheian System of Philosophy. By Arthur Lynch. Pp. xxiii+408. (London: G. Bell and Sons, Ltd., 1923.) 21*s*. net.

MR. LYNCH some years ago published a book in two volumes entitled "Psychology: a New System." Whether, like a famous work of a famous predecessor—the Scots philosopher Hume—his book fell still-born from the press, or whether for other more personal reasons, he has decided to recast it. He now presents it in one volume and describes it as the foundation work of the Alétheian system of philosophy. (Why the first e in the word is given the French acute