Roemer's knowledge was not, however, entirely confined to science, though its range here was surprisingly great; he was also well informed in the classics and *belles lettres*. His nature was winning, his manner attractive, and his influence with the young great. It scarcely need be said that he had many friends and admirers. Although happily married for twenty-three years he was childless, yet his love of children was shown in the rearing of his wife's nieces as his daughters.

It was his great good fortune to be able to look back upon a life rich in opportunities and fruitful in results. He had expressed the hope that the end might find him in the full possession of his powers rather than burdened with the infirmities of old age, and his wish was granted. He died at Breslau on December 14th, 1891, in his 74th year.

NOTICES OF MEMOIRS, ETC.

1. CANADA (?).—"A Summary Report of the Geological Survey Department for the Calendar Year 1901, printed by order of Parliament, Ottawa, 1902," has reached us; but nowhere in the title do we discover its country of origin. From internal evidence, however, we gather it comes from Canada. The report is full of interesting matter, contains two new Trionyx, illustrated, from the Cretaceous of Alberta, but suffers from the want of an index, or at least chapter headings. In these busy days 269 pages of Report are apt to be considered as mere Report unless the reader is furnished with a clue to the contents.

2. PYRENEAN VOLCANOES.—Patrick W. Stuart-Menteath describes the volcanic phenomena of the Pyrenees in a series of papers published in the Boletin de la Sociedad Aragonesa de Ciencias Naturales (Zaragoza), a new serial of which we have seen No. 5 of vol. i (May, 1902).

3. THE GERMAN GEOLOGICAL SOCIETY.—Dr. E. Koken has published (Berlin, 1901) "Die Deutsche geologische Gesellschaft in den Jahren 1848–1898, mit einem Lebenabriss von Ernst Beyrich," with a portrait of Beyrich. It is interesting to recall the names of the founders of the German Society—von Beust, Beyrich. von Buch, von Carnall, Ehrenberg, Ewald, Girard, von Humboldt, Karsten, Mitscherlich, J. Müller, Rose, Weiss.

4. MARYLAND. – The fourth volume of the Maryland Geological Survey (*Baltimore*, 1902) deals with "Palæozoic Appalachia, or the History of Maryland during Palæozoic time," by Bailey Willis. This is a highly interesting physical and dynamical paper, and is well illustrated. A second report on Highways by Messrs. Reid & Johnson contains results of tests of road materials and technical notes on road construction. Heinrich Ries contributes a long report on the Clays of Maryland, both from a geological and economic point of view. We again recommend the get-up of this publication to the notice of the Geological Survey of the United Kingdom.

DECADE IV .--- VOL. IX .-- NO. IX.

5. THE CONFLICT OF TRUTH.—This is a book by Mr. F. Hugh Capron, apparently written to reconcile Religion and Science. To those who are interested in this matter these 509 pages of argument may prove more absorbing at this time of year than throwing pebbles into the sea. There are chapters on "the six days of the formation," "the antiquity of man," and divers other matters. Publishers, Hodder & Stoughton, 1902; price 10s. 6d.

6. A NEW METEORITE.—Mr. Geo. P. Merrill describes some 20,000 grams of meteorite which fell at Admire, Lyon County, Kansas, probably 30 years ago. It is a pallasite and belongs to Brezina's Rökicky Group, consisting of metallic iron and olivine.

7. TARCOOLA. — The Record of the Mines of South Australia, issued by H. Y. L. Brown in 1902, deals with "Tarcoola and the North-Western District." The report is concerned mainly with the goldfields. The mass of the country consists of Cambrian (?) and metamorphic rocks, with Tertiary conglomerates and gravels, but there are gypseous clays at Lake Cadibarrawirracanna. A geological sketch-map is appended.

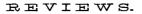
8. FORAMINIFERA.-Among the recent publications on this group may be mentioned Rhumbler's important paper on the double shells of Orbitolites and other foraminifera, with excellent illustrations, published in the Archiv für Protistenkunde, 1902. The author deals with and endeavours to explain the curious 'twinning' so common in Orbitolites. Messrs. R. B. Newton and R. Holland describe in the Journ. Coll. Sci. Tokyo, 1902, Bryozoa and Foraminifera from the Formosa and Riu-Kiu Islands; there are four plates, chiefly rock-sections showing organisms, and a figure of an Operculina which appears to have been an inch in diameter. Schlumberger (Bull. Soc. géol. France, 1901) figures Orbitoides media, d'Arch., and other forms of the genus, and discusses the genus in general; in another note (Samml. Geol. Reichs-Mus. Leiden, 1902) he describes a remarkable quadristellate Lepidocylina from Borneo. Barrois records the genera Endothyra, Textularia, Lagena? and Valvulina? from the Carboniferous phtanites of the Boulonnais (Ann. Soc. géol. Nord, 1902); and Lomnicki mentions the occurrence of Globigerina and Sphæroidina in the Miocene sands of Léopol (Kosmos, Lemberg, 1902). Fornasini, ever busy in this group of animals, has papers on three species of Textularia and a Polymorphina founded by d'Orbigny in 1826, a continuation of his valuable notes on forms described but not figured hitherto; on O. G. Costa's Faujasina; on the date of publication of Costa's "Foraminiferi di Messina"; and on the nomenclature of "Nautilus (Orthoceras) pennatula" of Batsch: all these papers appear in the Rivista Italiana di Paleontologia for 1902. Schubert discusses Defrance's genus Textularia, and with Liebus records foraminifera from the Devonian (Etage G-g_s, Barr.) of Bohemia (Verh. k.k. geol. Reichs., 1902).

9. OSTRACODA OF THE BASAL CAMBRIAN ROCKS OF CAPE BRETON.¹— Dr. G. F. Matthew has described a considerable number of species

¹ Canadian Record of Science, 1902, vol. viii, No. 7.

Reviews—Bertrand & Zurcher—Central American Geology. 419

of Ostracoda, and three new genera from the rocks older than the Paradoxides Beds but included in the Cambrian system. The author claims that these forms differ in many respects from the species of the Ordovician system, and have a unity of structure sufficient to place them in a new family distinct from Leperditiidæ, etc. Many of the species have wide valves, more or less pointed on the ventral margin; most have long hinge-lines and an ocular tubercle. The scar of the adductor muscle, in place of being near the middle of the valve as in many Ordovician species, is close to the anterior end of the cardinal line. Twenty-seven forms are described, arranged as follows : - Leperditia (?), 1 species ; Bradorona (subgen.), 3 species, 8 mutations, and 1 variety; Bradoria, 3 species and 1 doubtful, 1 mutation; Escasona, 1 species and 2 doubtful; Indiana, 2 species and 1 mutation; Schmidtella (?), 2 species and 1 mutation. Two of these forms are found in the basal volcanic terrane of Coldbrook; the rest are distributed through 500 feet of the Etcheminian terrane, occurring in twelve assises of that group in company with various Brachiopods. Two plates accompany this article in which are figured the various species and mutations described. Outline figures are also given to show the more obvious characters of the new genera.



I. ETUDE GÉOLOGIQUE SUR L'ISTHME DE PANAMA; par MM. MARCEL BERTRAND et PHILIPPE ZURCHER. II. LES PHENOMÈNES VOLCANIQUES ET LES TREMBLEMENTS DE TERRE DE L'AMÉRIQUE CENTRAL; par M. MARCEL BERTRAND. Quarto; pp. 38 in all, with plans and sections; published 1899.

I.

THE long-standing controversy between the advocates of the Panama route and those of the Nicaragua route for the great American interoceanic canal has apparently at the last moment been decided in favour of the former. Apart from the struggles of politicians this decision seems to be by far the most sensible, since property which even in its present state is worth something like £8,000,000 sterling must of necessity represent an asset of considerable value. It would seem not altogether improbable that the recent catastrophe in the Windward Islands has had its due effect in impressing upon the politicians at Washington the possible dangers of the Nicaragua route, which were so forcibly pointed out by Professor Bertrand in these memoirs more than three years ago, dangers foreseen by nearly all scientific men, and whose lessons just at present are well burnt into the mind of the Transatlantic public.

Since the time when the second great work of Mons. de Lesseps was commenced a new generation has appeared upon the scene, but it may not be without interest on the present occasion to quote a portion of an article which appeared in *Nature*, August, 1885,