evolution,"¹ and it appears unreasonable to expect me to discuss a fundamental principle at second hand, especially with the inadequate materials contained in the Postscript. Until Mr. Jukes-Browne has brought this central idea of Mr. Davison's, which he adopts, into harmony with his own ideas, it would be a waste of my time to traverse his criticisms, some of which present themselves to my mind as exceedingly immature. When this is done I shall be prepared to consider his arguments, and I must also ask him to be good enough to restate the first paragraph on page 28, as after re-reading I fail to understand it. His quantitative illustration is unfortunate as he has only exacted a tithe of what he is entitled to in my figures :-- $500 \times 500 \times 20$ is not five hundred thousand, but five millions.

PARK CORNER, BLUNDELLSANDS, Jan. 8, 1892.

T. MELLARD READE.

OBITUARY.

HERR GEHEIMER BERGRATH PROFESSOR DR. C. FERDINAND VON ROEMER. FOREIGN MEMBER. GEOLOCICAL SOCIETY, LONDON. BORN 5 JAN. 1818. DIED 14 DEC. 1891.

C. FERDINAND VON RÖMER was born at Hildersheim, in Hannover, in which kingdom his family occupied a position of some distinction, his father being a Councillor of the High Court of Justice, and his elder brother, Frederick Adolph, being a geologist of repute. Until the age of 18, Ferdinand Römer lived at Hildersheim and received his early education in the Evangelical Gymnasium of that town. In 1836 he removed to Göttingen, where he studied for four years, with the exception of a break of six months at Heidelberg: he had been enrolled as a student of the Faculty of Jurisprudence, but began to attend lectures in natural science, and soon became so interested in this subject as to entirely abandon his legal studies. In 1840 he proceeded to Berlin, and in 1842 the University of that city conferred upon him the degree of Ph.D. in appreciation of a palæontological thesis, "De Astartarum genere." Dr. Römer remained here for another three years, devoting his vacations to investigations on the older rocks of Western Germany. His main results upon this subject were published in 1844 in "Das rheinische Uebergangsgebirge." In the spring of 1845 he sailed for America; he made a very extensive tour through the States, and devoted a year and a half to the study of the geology of Texas, and especially of the Palæozoic and Cretaceous rocks of the western part of that State. He returned to Europe in November, 1847, and settled at Bonn, where he lived till 1855 as a "privat-docent," but occupied mainly in the elaboration and publication of the results of his American expedition. The most important of these was his "Die Kreidebildungen von Texas" (1852), which, with some smaller papers, have been recently described by Prof. Dumble,² the chief of

¹ GEOL. MAG. June, 1891, p. 272.
² E. T. Dumble, Geol. Surv. Texas, Rep. State Geol. 1889, p. xxii. Austin, 1890.

the new Texan Geological Survey, as affording "a remarkably comprehensive view of the geology of the State."

In 1855 Römer accepted the Chair of Geology, Palæontology and Mineralogy in the University of Breslau; thenceforth his strictly geological work was mainly devoted to Silesia, his chief results being included in his "Geologie von Oberschlesien" issued as three quarto volumes in 1870. For this work he was knighted and appointed Geheim Bergrath of Silesia. But during the whole of this period he did not rest in peace at home : his travelling instincts, doubtless stimulated by his American experiences, repeatedly drove him to wider fields: thus in addition to tours in England, Belgium, Poland and Austria, he visited Sweden (1856); Norway (1859); Russia (1861); Turkey (1863); and Spain (1864 and 1871). In 1859 he was elected a Foreign Member of the Geological Society, by which he was also awarded the Murchison Medal in 1885. The later years of his life were spent at Breslau, busily engaged until the end, which came with sad suddenness just before the attainment of the jubilee of his doctorate; this his many friends and students were preparing to celebrate, out of respect for his high character and personal popularity, and in gratitude to his power as a teacher.

On turning to Ferdinand von Römer's work in science, one cannot but be impressed with his wide range of interests and knowledge: it seems doubtful whether he will be longest remembered as a geologist or palæontologist. In the former department he has added greatly to the knowledge of the stratigraphy of America and the countries that he visited; he worked at one time or another on nearly every system from the early Palæozoic to the Pleistocene; but probably his work on the Devonian rocks was the most important, ranging as it did right across Europe, from Devonshire to Constantinople. His palæontological works were very numerous and included papers on the Sponges, Graptolites, Rugosa, Ostracoda, Eurypterida, Arachnida, Bryozoa, Lamellibranchiata, Cephalopoda, all classes of Echinodermata; the Ophidia and Mammalia. Many of the genera he added to science were of exceptional interest, such as Stephanocrinus and Dorycrinus, while his discovery of the pinnules in Blastoids, and his work on the anatomy of Cupressocrinus, and the structure of Melonites, were important contributions to morphology. His monographs on the Asteroidea and Crinoidea of Bundenbach, on the Blastoids, and on the fauna of the Bone Caves of Ojcow, in Poland (of which an English translation was issued in 1884), and his "Die Fauna der silurischen Diluvialgeschiebe von Sadowitz," were all valuable additions to palæontological literature. His "Lethæa Palæozoica" issued between 1876 and 1880 as the first part of the third edition of the "Lethæa Geognostica" (with the early editions of which he had been associated) was a work of vast labour and permanent value. In later years Römer also wrote on mineralogy, issuing papers on the zinc ores, scheelite, columbite, and the pseudomorphism of cerrusite after cotunnite. But these three subjects did not exhaust his range of interests, for he was well read in literature both modern and classical, and his "Texas, mit besonderer Rücksicht auf deutsche Auswanderung," showed his keen sympathy with the political and social problems of the time. J.W.G.

[As a friend and companion, Dr. Ferdinand Roemer was one of the most cheerful and congenial of men; the Editor is reminded of a delightful fortnight spent in his society in the Eifel, in 1878. His spirits and fun never seemed to become exhausted, and his vast stores of scientific knowledge were always at the disposal of his companions. His memory will be cherished by a large circle of younger men to whom his unvarying kindness will always be recalled with a sense of pleasing regret.—H. W.]

MISCELLANEOUS.

A MONUMENT TO WILLIAM SMITH, LL.D.

ONE of the most interesting historical collections preserved in the British Museum (Natural History) is the Geological Collection of William Smith, LL.D. This was commenced about the year 1787, and purchased by the Trustees in 1816, a supplemental Collection being added by Dr. Smith in 1818.

It is remarkable as the first attempt made to identify the various strata forming the solid crust of England and Wales by means of their fossil remains. There had been other and earlier Collections of fossils, but to William Smith is due the credit of being the first to show that each bed of Chalk or Sandstone, Limestone or Clay, is marked by its own special organisms, and that these can be relied upon as characteristic of such stratum, wherever it is met with, over very wide areas of country.

The fossils contained in this Cabinet were gathered together by William Smith in his journeys over all parts of England during thirty years, whilst occupied in his business as a Land Surveyor and Engineer, and were used to illustrate his works, "Strata Identified by Organized Fossils," with coloured plates (quarto, 1816; four parts only published); and his "Stratigraphical System of Organized Fossils" (quarto, 1817).

A coloured copy of his large Map, the first Geological Map of England and Wales, with a part of Scotland, commenced in 1812, and published in 1815—size 8 feet 9 inches by 6 feet 2 inches, engraved by John Cary—is exhibited in the Geological Department near his collection.

William Smith was born at Churchill, a village of Oxfordshire, in 1769; he was the son of a small farmer and mechanic, but his father died when he was only eight years old, leaving him to the care of his uncle, who acted as his guardian. William's uncle did not approve of the boy's habit of collecting stones ("pundibs"= *Terebratulæ*, and "quoit-stones"=*Clypeus sinuatus*); but seeing that his nephew was studious, he gave him a little money to buy books. By means of these he taught himself the rudiments of geometry and land-surveying, and at the age of eighteen he obtained employment as a land surveyor in Oxfordshire, Gloucestershire, and other