

potash-felspar, phosphate of lime, alum-shales, graphite, molybdenite, chromite, tale, and diatomite. In connexion with this list the most pressing need is the discovery of some process to render easily available the vast stores of potash existing in the felspars of the igneous rocks, in order to make this country independent of the German supply of potash salts. Of most of the minerals on this list the British output is now exceedingly small, owing to free importation of foreign material.

4. THE VOLCANIC ROCKS OF SOUTH-EASTERN QUEENSLAND. (Proc. Roy. Soc. Queensland, 1916, pp. 105–204.)—In this paper Mr. H. C. Richards gives a very interesting account of the volcanic rocks of the south-eastern corner of Queensland, which he shows to be probably of Tertiary age. The rocks are divided into three series, lower, middle, and upper, which are in the main basaltic, rhyolitic, and andesitic respectively. The general composition is clearly sub-alkaline; only in the middle division is there a small proportion of alkaline lavas, pantellerites, comendites, and trachytes, rich in ægirine, arfvedsonite, and riebeckite. These appear to be due to differentiation in the parent magma rather than to assimilation of calcareous material, as advocated by Jensen. The most strongly marked chemical characteristic in all groups is a deficiency of alumina, with a compensating excess of iron oxides. The eruptions were chiefly of the fissure type, though some of the acid eruptions have given rise to tuffs and agglomerates. Contrary to the generally received opinion the Tertiary eruptives of this area constitute a well-marked sub-alkaline province, with only local alkaline episodes. The earth-movements connected with the eruptions are all of the plateau-building type, and there has been no folding since Palæozoic times.

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#### OBITUARY.

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EDGAR ALBERT SMITH, I.S.O.,  
LATE CONCHOLOGIST OF THE BRITISH MUSEUM.

BORN NOVEMBER 29, 1847.

DIED JULY 22, 1916.

ONE of the ablest conchologists of the day has recently passed away in the person of Edgar Albert Smith, who was for more than forty years on the staff of the British Museum. He died at his Acton residence on July 22, in his 69th year. His father was the late Mr. Frederick Smith, a well-known entomologist, and Assistant Keeper of Zoology in the British Museum, Bloomsbury.

Mr. Smith entered the British Museum in 1867, becoming in due course an Assistant Keeper of the Zoological Department, and finally retiring, under the age clause, in 1913. His earlier work at the Museum comprised the arrangement of the famous Hugh Cuming collection of Mollusca, besides which he supervised for some time the whole of the marine invertebrate collections, with the exception of the Crustacea. He was chiefly responsible, however, for the arrangement of the Shell-gallery, which involved considerable care and attention, especially during that period when the natural history collections

were transferred from their old home at Bloomsbury to the new museum in Cromwell Road. Mr. Edgar Smith's researches resulted in the publication of some 300 separate memoirs on the Mollusca, and a few dealing with the Echinodermata; one of his better known works treating of the Lamellibranchs collected by the *Challenger* Expedition. The molluscan faunas of the great African lakes also claimed his attention and formed the subject of a presidential address before the Malacological Society of London, in which no support was given to the views of Mr. J. E. S. Moore, who regarded the Tanganyika Gastropoda as representing forms which had their origin in marine Jurassic times.

Mr. Smith had some slight connexion with geological work, as he was appealed to on more than one occasion to determine molluscan remains found in the post-Pliocene deposits of South Africa, when the majority of the species could be referred to recent forms; such determinations are to be found in the *Trans. Geol. Soc. South Africa*, vol. xii, pp. 112–18, 1910, and in the *Ann. Rep. Geol. Com. Cape of Good Hope*, 1899–1900, p. 61, and in the same journal for 1906, p. 203. He was also joint author with R. Bullen Newton of a paper "On the survival of a Miocene Oyster in Recent Seas", published in the *Records Geol. Surv. India*, vol. xlii, 15 pp., 8 pls., 1912. He was a Fellow of the Zoological Society of London, a corresponding member of the Linnæan Society of New South Wales, and of the Academy of Natural Sciences of Philadelphia. He had occupied the presidential chairs of both the Conchological Society of Great Britain and Ireland and of the Malacological Society of London, being a foundation member of the latter, and editor of its Proceedings at the time of his death. For his long and meritorious services to science he was decorated, during King Edward's reign, with the Imperial Service Order. Mr. Smith's great knowledge of the recent Mollusca was always at the disposal of both collector and specialist, whilst his amiable and unassuming manner endeared him greatly to all his colleagues in the British Museum.

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**DR. PIERRE MARIE HENRI FISCHER,**

DIRECTOR OF THE JOURNAL DE CONCHYLOGIE, MEMBER OF THE  
MALACOLOGICAL SOCIETY OF LONDON, ETC.

BORN IN 1866.

DIED JULY 10, 1916.

WE regret to record the death of Dr. P. M. H. Fischer at his residence, 51 Boulevard Saint Michel, Paris, in his 50th year. Himself a well-known conchologist, he was the son of the eminent malacologist Paul Fischer, author of the *Manuel de Conchyliologie*, a translation and extension of that by the late Dr. S. P. Woodward.<sup>1</sup> He wrote numerous important papers, and was one of the editors as well as a contributor to the *Journal de Conchyliologie*, from 1894 to the date of his death.

<sup>1</sup> *A Manual of the Mollusca, or a Rudimentary Treatise of Recent and Fossil Shells*, by S. P. Woodward, 8vo, 1851–6 (of which upwards of 11,000 copies have been sold).