

Society, but were made also to the Chemical and the Royal Societies, and some were published in the Philosophical Magazine. He was elected a Fellow of the Geological Society of London in 1872, and of the Royal Society in 1881, and at the time of his death was a Vice-President of the former Society. He was also a F.C.S., a M.I.C.E., and an "Ancien Elève de l'École des Mines."

Those who were personally acquainted with Mr. Phillips, while they lament the loss to science which his sudden death has inflicted, mourn still more the extinction of a life of singular simplicity, earnestness, and kindness. He was a large-hearted and open-handed man, fond of taking every chance that came in his way of doing a good deed and helping every one to whom his help could be of service.

CHARLES FRANÇOIS FONTANNES.

OF the losses by death sustained by Geological Science in the year 1886, none has been greater than that of M. Fontannes. Men of riper age, and of wider reputation, we may have lost; but when we consider the value and the amount of the work performed by M. Fontannes before reaching his 48th year, it will be evident that the gap left by his death will not be easily filled. Especially will this be the case with the "International Geological Congress," which is to hold its next meeting in England in 1888.

There are several Secretaries to the Congress at each meeting, but the bulk of the work falls on one or two. At Bologna, in 1881, M. Fontannes divided the work with M. Delaire; but in 1885, at Berlin, M. Fontannes took it almost entirely upon himself. The "procès verbal" of a foreign scientific meeting is very different from the "minutes" of an English meeting; it is really a full abstract of the entire discussion, and the prompt preparation of this is no small test of a man's powers.

M. Fontannes' earliest work was a notice of the Museum of Lyons, 1873. This was followed in 1874 by a Note on the Infra-Lias of Narcel, and by notes taken at Athens. In 1876 he published, with M. Dumontier, "Description des Ammonites de la zone à *Ammonites tenuilobatus* de Crussol et de quelques autres fossiles Jurassiques nouveaux ou peu connus" (*Mem. l'Acad. Lyon*). In 1879 this was followed up by a work on the same subject by Fontannes himself, Dumontier having died meanwhile. In the Introduction to the later work Fontannes pays a warm tribute to his late master, attributing to his encouragement and influence his own love for geology. These books made known a new Jurassic Fauna for the South-east of France.

The most important works by Fontannes were "Les Invertébrés du Bassin du Sud-est de la France—Les Mollusques Pliocènes de la Vallée du Rhône et du Roussillon," of which two volumes appeared (1879-82); and "Etudes stratigraphiques et paléontologiques pour

servir à l'histoire de la Période Tertiaire dans le bassin du Rhône" (*Ann. Soc. Agric. Lyon*) ; of this eight parts appeared :—

- i. Le Vallon de la Fuly et les Sables à Buccins des Environs d'Heyrieu (Isère) 1875.
- ii. Les Terrains tertiaires supérieurs du Haut Comtat-Venaissin (Bollène. St. Paul-Trois Châteaux. Visan) 1876.
- iii. Le Bassin de Visan (Vaucluse) 1878.
- iv. Les Terrains néogène du Plateau de Cucuron (Cadinet-Cabrières-d'Aigues), 1878.
- v. Description de quelques espèces nouvelles on peu connues, 1879.
- vi. Le Bassin de Crest (Drôme), 1880.
- vii. La Région Delphino-Provençale, 1881.
- viii. Le Groupe d'Aix dans Le Dauphiné, La Provence et le Bas-Languedoc, 1885.

An active worker in the field and a careful student in the museum and library, M. Fontannes united in himself the two important requisites for studying problems of this nature. He explored the later Tertiaries of the South of France and the neighbouring regions, wherever known, and traced them into districts where they were not previously known to exist.

Besides the important works here alluded to, M. Fontannes published numerous papers on the same or on kindred subjects, chiefly in the *Bull. Soc. Géol. de France* and *Ann. Soc. Agric. Lyon*. But he also wrote on the Miocenes of Portugal (*Ann. Sci. Géol.* 1884) ; on the Constitution of the Subsoil of the Chalk and of the Plain of Avignon (*Bull. Soc. Géol. France*, 1884) ; on Borings in the Isère, Drôme, and Vaucluse (*Ann. Soc. Agric. Lyon*, 1883). His minor and miscellaneous papers amount to about forty in number.

M. Fontannes was an Officer of Public Instruction, and of the Geological Survey of France ; Chevalier of the Order of St. Maurice and Lazare, and a recipient of other Orders conferred by Foreign Governments. In recognition of his important researches, the Academy of Sciences awarded him, in 1883, the Grand Prize of the Physical Sciences.

W. TOPLEY.

THE EARL OF ENNISKILLEN, D.C.L., LL.D., F.R.S., F.G.S., M.R.I.A.

BORN 25 JANUARY, 1807 ; DIED, 12 NOVEMBER, 1886.

By the death of William Willoughby Cole, third Earl of Enniskillen, geological science has lost one of its most earnest supporters. Educated at Eton, and afterwards at Christchurch, Oxford, he became attached to Sir Philip de Malpas Grey-Egerton, Bart., and having studied geology with him under the Rev. W. Conybeare and Dr. Buckland, they spent their long vacation with the former at Lyme Regis, where they made the acquaintance of the well-known Mary Anning, and commenced to collect Lias fossils. Afterwards, by advice of Dr. Buckland, they visited Franconia, and explored the caverns of Küloch, Rabenstein, Scharzfeld and Gailenreuth, and returned laden with spoils of Hyæna, Bear, Lion, Rhinoceros and other cave-animals. Encouraged by Prof. Agassiz, they took up the study of fossil Fishes, with which their names will ever remain associated. It seems only appropriate that the collections made by these two eminent palichthyologists, whose life-long friendship was cemented by a common interest, should now rest side by side in the Geological Gallery of the British Museum (Natural History).