NOTICES OF MEMOIRS, ETC.

I.—Geological Observations in the District of the Ancient Channels by which the Main and Neckar flowed into the Rhine near Wiesbaden.

"Geologische Beobachtungen im Gebiet der alten Mündungen von Main und Neckar in den Rhein." Von A. Steuer.

(PLATE XI.)

THE accompanying photographic plate gives a good example of faulting in the Rhine Valley near Wiesbaden in the Pleistocene period. The section in a large quarry south-east of Wiesbaden, south of Mosbach, was photographed during a recent survey of the district by Herr Steuer, but other instances had long been known.

On the right-hand side are shown the Hydrobia deposits (Miocene) covered by a thin layer of old river terrace, the Mosbach Sands. The contrast between the hard calcareous beds and layers of marl with Hydrobia brings out the faulting very clearly. On the left-hand side a large 'wedge' of the sands is let down 10 metres into the underlying marls, bringing Pleistocene deposits sharply against Tertiary. Many small faults may be seen both inside the wedge and in other parts of the section.

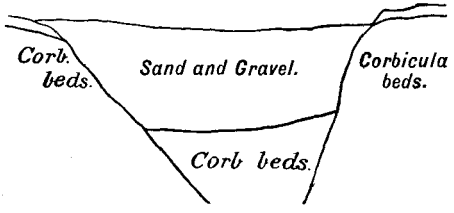
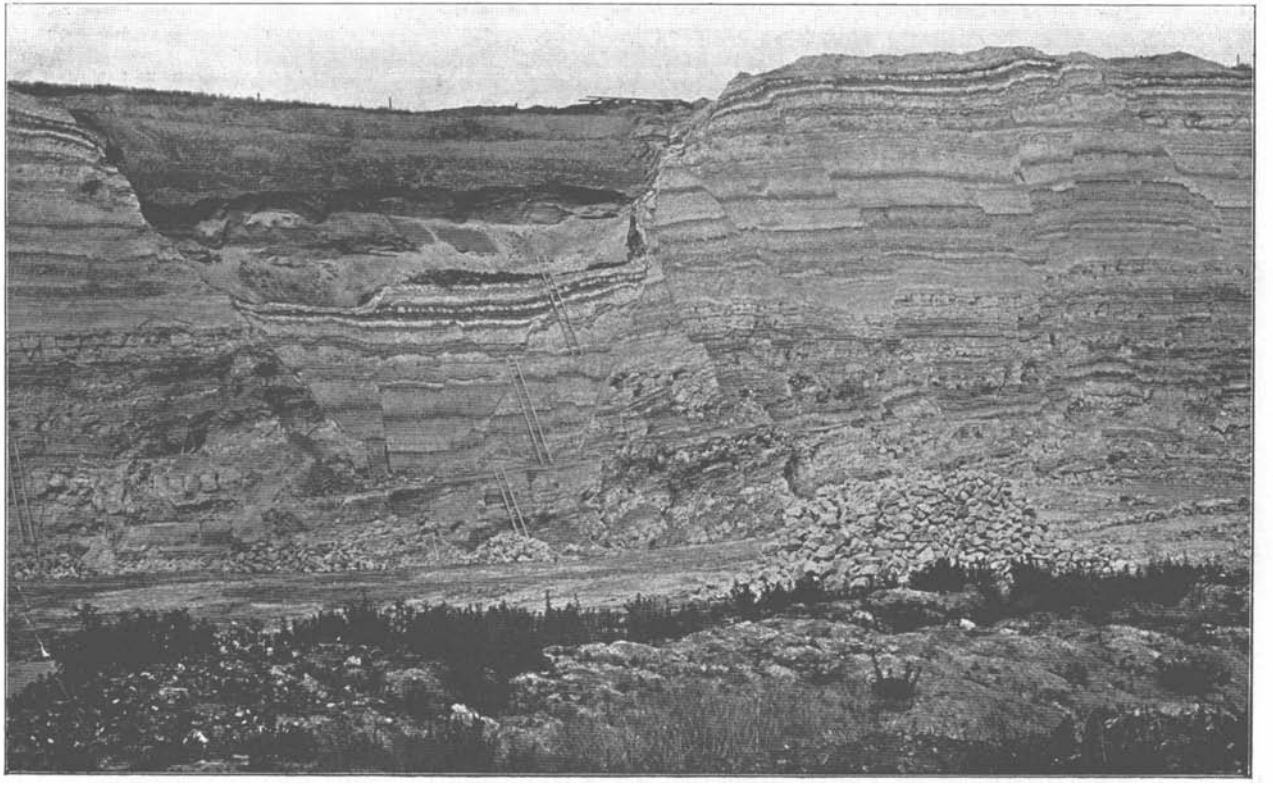


Diagram showing a large wedge of Mosbach Sands and Gravel of Glacial age, which have been let down, by faulting, 10 metres into the underlying marls of Miocene age with *Corbicula* and *Hydrobia* of the Mayence basin. (See centre of Plate XI.)

The Mosbach Sands have yielded *Ursus spelæus, Elephas primigenius, E. antiquus, Cervus canadensis, Alces latifrons, Rhinoceros Mercki, Bison priscus*, etc.

The old terraces of the Maine near its confluence with the Rhine are divided into three. The earliest, corresponding to the Mosbach Sands, is found at about 450 feet above the sea-level, or 200 feet above the present river. But subsequent earth-movements have displaced it to such an extent that it is occasionally seen 150 feet below its normal level. The next terrace is not found in the special district described by the author, but the third, and lowest, forms a narrow belt along the river side not very far above the present flood-levels.

The greatest earth-movements are believed to have taken place between the formation of the second and third terraces, but from the evidence given by the old channels in the youngest terrace it is



SECTION NEAR WIESBADEN.

Showing good examples of faulting in Mosbach Sands and Gravels, of Glacial age, which have been let down between two faults 10 metres into the underlying marls of Miocene age with *Hydrobia*, etc., of the Mayence basin.

inferred that the movements were repeated after that epoch, and are perhaps not yet ended.

The oldest terrace is now regarded as Lower Diluvium, the others belonging to the two divisions of the Middle Diluvium. This classification differs somewhat from that published by Dr. Kinkelin, and makes the terraces contemporaneous with older stages of the Alpine Glacial Series. T. I. Pocock.

II. — Report on Thorianite and Thorite. By Ananda K. Coomáraswámy, B.Sc., Director, Mineralogical Survey, Ceylon.

THIS report gives more precise details than have hitherto appeared of the locality and associations of the new mineral thorianite. This mineral, it will be remembered, was shown to be a new species by the analysis of Mr. G. S. Blake, of the Imperial Institute, who found that it contained as much as 76 per cent. of thoria and only about 12 per cent. of oxide of uranium, and thus differed materially from pitchblende, to which it had been at first referred. As shown on a map, which accompanies the report, the principal deposits of thorianite occur in and near the bed of the Kuda Pandi-oya, a small stream near Kondurugala, Bambarabotuwa, Province of Sabaragamuwa, Ceylon. The mineral occurs in the bed of the stream in black cubic crystals associated with zircon and ilmenite. In this neighbourhood it has not yet been discovered *in sitû*, but a few crystals have been found in a pegmatite vein on Ambalawa Estate, Gampola.

Mr. Coomáraswámy discusses the prospect of further discoveries, and we wish him success in his efforts in search of these deposits of minerals rich in thoria, now so valuable as the chief constituent of incandescent gas mantles.

REVIEWS.

I.—The Face of the Earth. By Eduard Suess, Professor of Geology in the University of Vienna. Translated by Hertha B. C. Sollas, Ph.D., of Newnham College; under the direction of Professor W. J. Sollas, LL.D., F.R.S., etc. Vol. I. 8vo; pp. xii, 604, with 4 maps, 2 plates, and 48 other illustrations. (Oxford: at the Clarendon Press, 1904. Price 25*s.* net.)

AFTER a period of more than twenty years the first volume of the famous and now classic work of Professor Suess, "Das Antlitz der Erde" (1883–85), has been made intelligible to every British geologist. The work meanwhile, by its broad and luminous teachings, has inspired many a distinguished geologist at home and abroad on all subjects connected with the surface-structure of the earth, and has largely increased our knowledge of the origin of the physical features in which both geologists and geographers are interested.

In the preface which the author has specially written for this translation he points out naturally enough "that the reader will meet, here and there, in the first two volumes, with a description