

While the evidence is still too uncertain to admit of any conclusion approaching finality, there are certain considerations in favour of a Mesopotamian origin to which Dr. Gompertz might have given fuller weight, and certain facts which he should have taken into account, such as the wheat discovered by the Weld-Blundell Expedition at Kish. Further, although Mesopotamian dating is not final, agricultural implements from Abu Shahrein may turn out to be as early as any from predynastic Egypt, while the undoubted occurrence of wild wheat and barley in Syria has to be weighed against the inferential attribution of the latter to Abyssinia. The evidence is given in summary in Mr. Harold Peake's presidential address last year to the Royal Anthropological Institute. The argument from the Isis-Osiris cult is no more in favour of an indigenous Egyptian origin than the Ea legend, which the author rejects as in favour of Mesopotamia. Osiris was not Egyptian in origin, but came from the north, while the Isis legend is connected with Byblos.

*Memoirs of the Geological Survey of England and Wales. The Geology of the Southern Part of the South Staffordshire Coalfield (South of the Bentley Faults).* By Talbot H. Whitehead and T. Eastwood. With contributions by Dr. T. Robertson. Pp. xi + 218 + 13 plates. (London: His Majesty's Stationery Office; Southampton: Ordnance Survey Office, 1927.) 6s. 6d. net.

WHEN Jukes wrote his classic memoir on the South Staffordshire Coalfield, the Thick Coal was being actively mined. To-day it is almost completely worked out, except in the concealed fields beyond the boundary faults, and the surface geology of much of the coalfield is that of tip-heaps and slag-mounds; nevertheless, the authors of the present memoir, under the scrupulous editorial guidance of Mr. T. C. Cantrill, have compiled a concise, yet detailed, account of the Productive Coal Measures, showing their variations, structures, and probable limits on the south and west. The marshalling of the scattered and often obscure data relating to these measures is very skilfully done. Numerous plates of vertical sections supplement the descriptions.

In view of the importance of a proper understanding of the cover overlying the Productive Series, now that any new coal-ventures must needs take place below them, there is a full treatment of the Upper Coal Measures, in which the authors include not only the Etruria, Halesowen, and Keele Groups, but also provisionally the Enville Beds and even the Clent and Warley Breccias. The Hopwas Breccia is, however, regarded as more closely related to the Trias. These conclusions are reached after a critical review of the data and of the interpretations advanced by other observers.

The re-survey has shown that contemporary movement directly related to pre-existing structural axes was going on during the deposition of the Productive, Etruria, and Halesowen Groups, so that the thicknesses vary considerably from place to place. The detailed mapping appears to

have disproved Kay's contention that there is an unconformity below the Etruria Marls; and, on the other hand, it seems to have demonstrated that the Halesowen Group is locally unconformable.

The structure of the sub-Carboniferous floor and of the coalfield itself is fully discussed, and the repetition of movement along some of the structural lines is emphasised. A chapter is devoted to the underground extensions of the coalfield and another to the associated igneous rocks.

An innovation in the index may be noted with approval. The names of authors quoted in the text are printed in capitals, and in this way a separate bibliography is avoided. The whole book is a very careful piece of work that fully maintains the standard set by Jukes. L. J. W.

- (1) *Vorlesungen über theoretische Mikrobiologie.* Von Prof. Dr. August Rippel. Pp. viii + 171. (Berlin: Julius Springer, 1927.) 6-90 gold marks.
- (2) *The Principles of Practical Bacteriology: for Scientific Workers.* By J. H. Johnston and Dr. R. H. Simpson. Pp. viii + 110. (London: J. and A. Churchill, 1927.) 5s.
- (3) *An Introduction to Laboratory Technique in Bacteriology.* By Prof. Max Levine. Pp. xii + 149. (New York: The Macmillan Co., 1927.) 5s. 6d. net.

(1) THIS excellent little book by the professor of agricultural bacteriology at the University of Göttingen is designed chiefly for the use of non-medical students requiring instruction in general bacteriology and particularly in the chemistry of bacterial growth. Of the thirty-four brief lecture-chapters in the book, more than a dozen are devoted to the study of bacterial enzymes and bacterial metabolism generally. Considerable knowledge of organic chemistry is essential for the full appreciation by the student of this portion of the work. The volume closes with a brief sketch of immunity problems and an etymological glossary of biological terms.

(2) It is often desirable that technical workers in fields not primarily bacteriological should have some elementary knowledge of the general characters of bacteria and the principles governing their investigation. It is to meet this demand that Messrs. Johnston and Simpson's small volume has been written. The basic principles of the subject are dealt with in a very simple way, and no attempt is made to give instruction in technique or to acquaint the reader with the different members of the bacterial species.

(3) Prof. Levine's book is based upon a laboratory course in elementary bacteriology at the Iowa State College, U.S.A. It is arranged in the form of a series of exercises covering the commoner phases of the subject. A list of materials required for each exercise is given, together with instructions, and a number of questions at the end designed to test the student's knowledge of what he has just performed. The scope of the book is limited to elementary general bacteriology, and does not extend to special branches of the subject.