

that apparent discrepancies in zonal distribution were due either to bad palaeontology or inaccurate stratigraphy. At the suggestion of Thomas Davidson, he undertook the preparation for the Palaeontographical Society of a monograph on the Inferior Oolite Ammonites, the first volume of which came out at intervals from 1887 to 1907, during which time the author's ideas developed so extensively that the later instalments of the work were largely corrections of the earlier. The Palaeontographical Society would not agree to the publication of a second volume, and Buckman thereupon started a publication of his own, at first somewhat on the lines of the *Palaeontologia Universalis*, originally *Yorkshire Type Ammonites*: this broadened into *Type Ammonites*, and had reached in twenty years its seventh volume and almost the eight hundredth species when his final breakdown in health occurred last summer.

Parallel with his steady output of papers on Ammonites, there was an almost equal flow on Brachiopods, and a series of contributions on Jurassic stratigraphy. The detailed study of ammonite and brachiopod zones led to the realization of intra-Jurassic earth-movements and erosions, which gave fresh evidence for Godwin-Austen's principle of continuity of folding. Buckman was always ready to apply the idea of evolution to any subject, and, besides some contributions to Anthropology, he contributed in 1899 to *Natural Science* an application of W. M. Davis's principles of river-evolution to English rivers, which has hardly received the attention it deserves.

Buckman married, in 1882, the daughter of the botanist whose romantic association with his father is mentioned in *Type Ammonites* (v, 26), to whom he had already dedicated a terebratulid (now *Heimia hollandae*) and who with four sons and four daughters survives him. Kind of heart and with a keen sense of humour, ever ready to help his fellow-workers, his memory will be cherished by those who knew him. The value of his contribution to science is difficult to realize, for so much of it has been absorbed into contemporary thought that the unaccepted fragments appear unduly prominent to the younger generation.

A. M. D.

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## CORRESPONDENCE.

### AFRICAN RIFT VALLEYS.

SIR,—In a paper entitled “The Origin of the Great Rift Valleys as evidenced by the Geology of Coastal Kenya”, *Trans. Geol. Soc. S. Africa*, vol. xxi, 1928, pp. 63–96, Dr. E. Parsons—who has done a great deal of valuable work in Eastern Africa—set forth certain conclusions, the correctness of which has recently been disputed by Mr. Maufe and Professor J. W. Gregory. My own silence in respect of this matter is, I gather, likely to be taken

as indicative of concurrence with Dr. Parsons' views, and I am anxious to dispel that impression.

Those who are interested in the matter, and many geologists are likely to be so in view of the impending meetings of both the International Geological Congress and the British Association in South Africa this year, would do well to consult *Min. Proc. Geol. Soc. S. Africa*, 1929, pp. xliii-vi (proof subject to alteration just issued).

Dr. Parsons' views concerning the existence of thrusts at the coast may be right or wrong, but to one no better acquainted with the geology of that part of Kenya than I am they are unconvincing; and (although I am not one of those who accept the tension theory) I do not think they bear of necessity on the origin of Rift Valleys; for it is not proved that the forces that gave rise to these structures originated outside (to the east of in this case) the continent.

My own attitude towards the interpretation of Rift Valleys will be explained at a meeting of the International Geological Congress in Johannesburg, where I am to have the privilege of opening a discussion on that subject. Meanwhile, however, I should like to say that although the movements that gave rise to the Rift Valleys may be but a repetition of similar activities that have manifested themselves more than once in the geological history of enormous areas of Africa, there can be no doubt that Maufe is right when he suggests that the folding of the Karagwe-Ankolean beds of Uganda and Tanganyika Territory occurred in a period long prior to that in which the present Rifts appeared. Not only so, but the folding of the Karroo, which is later than that of the Karagwe-Ankolean, also belongs to geological antiquity; for the Karroo basins, no less than older structures, were surface-levelled by a vast peneplain which had reached an advanced stage of maturity before the occurrence of certain warpings and the Rift Valleys associated with them.

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15 WESTCLIFF TERRACE MANSIONS,  
RAMSGATE.  
19th May, 1929.

#### THE CHERTS OF NORTH FLINTSHIRE.

SIR,—Dr. G. M. Lees has given us an interesting paper on "The Chert Beds of Palestine",<sup>1</sup> but his summary in that paper of the massive chert-formation of North Flintshire contains inaccuracies which cannot be allowed to pass unchallenged.

(1) There is no massive chert at or near Colomendy. That locality is far removed from the chert-outcrop.

(2) The development of the chert is widespread and not "local", and the numerous exposures ranging from 20 or 30 up to nearly 100 feet in thickness are certainly not "poor".

<sup>1</sup> *Proc. Geol. Assoc.*, xxxix, 1928, pp. 445-62.