

CORRESPONDENCE.

PROFESSOR VON BUBNOFF'S *GRUNDPROBLEME DER GEOLOGIE*.

SIR,—In reference to your review of Professor S. von Bubnoff's book, *Grundprobleme der Geologie* (pp. 522–3, *GEOLOGICAL MAGAZINE*, Nov.), and the opinion therein expressed that this excellent work should be translated into English, I may say that a translation by me has been in progress for some time, and will be published as early as possible next year.

G. W. TYRRELL.

THE UNIVERSITY,
GLASGOW.
19th November, 1931.

THE GENETIC RELATIONSHIPS OF PEGMATITES, APLITES AND TIN VEINS.

SIR,—Under the above heading, in your issue of October, 1931, Dr. Derry, in discussing the distinction in texture between pegmatites and aprites, considers that during crystallization most of the water present in the magma follows one differentiate and forsakes the other, and he asks what is the cause. His comment, that “the study of physical chemistry fails to reveal reasons for a sharp separation of this sort”, does not do justice to theoretical chemistry, for that branch of science offers, in the form of the Distribution Laws, a very sound basis of explanation of the apportionment of constituents (solute) of the magma, including the minor and often economically valuable ones, between the various differentiation products (phases) as well as their persistence in the same.

Operation of those laws attends equilibrium tendency, and completeness or otherwise of the division of both solvent and solutes at their behest may be taken as some indication of how nearly equilibrium was attained. The distribution laws offer, for example, a facile explanation for the very wide (but usually uneconomic) distribution of gold in the Keewatin rocks, and their Algonian intrusives, of Northern Ontario.

H. C. BOYDELL.

TORONTO,
ONTARIO.
13th February, 1932.

THE TERM “ARVONIAN”.

SIR,—While sorting some old papers, I have come upon the letters which I received in reference to this question, in response to my suggestion of June, 1930, in this Magazine.

Only four persons wrote. Of these, two expressed strong approbation, and hoped that the term would be adopted. One

writer suggested, but afterwards withdrew, "Padarnian." The fourth thought there might be confusion between "Arvonian" and "Avonian".

In June, 1930, I concluded my letter by saying that "if serious disapproval be not manifested, then I will adopt 'Arvonian'". In view of these four letters, and of the silence of everybody else, it is clear that there is no serious disapproval. I feel therefore free to adopt the term.

EDWARD GREENLY.

THE PLEISTOCENE SUCCESSION IN ENGLAND.

SIR,—In his paper on the Pleistocene Succession in the January number of the *GEOLOGICAL MAGAZINE*, Dr. K. S. Sandford has made a notable contribution towards the solution of our difficulties in the correlation of glacial and interglacial episodes with the industrial phases of Early Man.

I agree with the broad outlines of his correlation—indeed, I had independently been led to practically the same conclusions, though our approach to the problems was rather different. By reversing the "apparent" order (in his *Q.J.G.S.* paper) of the Summertown-Radley Terraces and Wolvercote Channel, by correlating the Plateau Drift with the Norwich Brickearth (containing Scandinavian erratics) and abandoning any correlation with the Cromer Forest-bed, Dr. Sandford has cleared up most of the difficulties I foresaw.

As I shall be attempting a general conspectus of the problems a little later in the year, I will only point out at this stage a slip in Dr. Sandford's summary table on p. 15, which may confuse readers, because it involves an apparent contradiction with other parts of the paper. The Brown Boulder Clay of Hunstanton finds its equivalent in Yorkshire in the Hessle Boulder Clay, and in the Thames Valley in the Ponder's End stage. The Upper Chalky Drift of East Anglia and the Coombe Rock appear to be represented in Yorkshire by the Upper Purple Boulder Clay, which it appears must be attributed to an ice-advance separate from that of the Lower Purple Boulder Clay. The view of a four-fold glaciation of Yorkshire has the support of Drs. Raistrick, Trotter and Hollingworth, to whom I offer my thanks for their trouble in furnishing me with their detailed correlations.

P. G. H. BOSWELL.

DISTURBED GLACIAL BEDS IN DENMARK.

SIR,—In a recent publication of the Geological Survey of Denmark, the famous sections of disturbed glacial beds at Lønstrup have been described and admirably illustrated by Mr. Axel Jessen. British geologists will welcome this detailed description of a classic area,