## CORRESPONDENCE

## HERCYNIAN Fe-Mg METASOMATISM IN CORNWALL

SIR,—Knowing something of Miss Reynolds's views on petrogenesis from her previous essays on this subject, I am not at all surprised to find the disagreement she records (*Geol. Mag.*, 1947, pp. 33–50) with Flett and Tilley's derivation of the greenstone and cummingtonite-bearing hornfelses of the Kenidjack-Botallack area, Cornwall. Rocks long recognized as greenstones derived by thermal metamorphism of sheared basic igneous rocks, and mapped as such by the Geological Survey, are now reinterpreted by her as altered limestones; and the cummingtonite-anthophyllite assemblages intimately associated with the greenstones and regarded as their derivatives are classed as altered calcareous shales, desilicated and "basified", if I am not mistaken, by action of an iron front of regional character which penetrated them and the associated "limestones" prior to the emplacement of the Land's End granite.

I may say at once that it is difficult to believe, on reading her contribution, that Miss Reynolds has found real opportunity to acquaint herself at first hand with the rocks she attempts to reinterpret; conjuring with von Wolff diagrams, ill suited for the purpose, provides, it seems, the real enlightenment, here as elsewhere. Nevertheless a critical field study taken in time might perhaps have saved her from this strange and fanciful version of the Cornish geological record.

I do not propose to dwell further on so gross an error it may well be left to seek its own level in the heavy score of misinterpretations already standing to the credit of "front" petrology.

C. E. TILLEY.

DEPARTMENT OF MINERALOGY AND PETROLOGY, THE UNIVERSITY, CAMBRIDGE. 10th February, 1947.

## CRYSTALLIZATION OF PLUTONIC AND HYPABYSSAL ROCKS

SIR,—May I make the following reply to Dr. Nockolds's letter published in the last number of the Geological Magazine?

(1) In his paper Dr. Nockolds stated that discontinuous reaction "cannot happen in a eutectic system". He now claims to have meant no more than that a discontinuous reaction point is not a eutectic point. Why then cite Dr. Bowen in order to support a thing so self-evident? What he did write was bound to lead the reader to assume that it was for systems with one or more eutectics that he used the term "eutectic system".