hydrothermalists have long called attention to the occurrence of the ore bodies in connexion with faults which explain their position.

(6) My statement that some of the nickel ores occur outside the norite is represented by Professor Coleman as founded on a statement by Mr. Knight. His statement was in my mind, with much other evidence, including the facts seen in a visit to the Victoria Mine in 1908, where the ore occurs in greenstones and not in the norite, with which there appears to be no connexion. Professor Coleman attributes the sulphide ores outside the "norite" to their injection as molten sulphide from the overlying igneous rocks; but that explanation would appear to me quite inapplicable to the ores in the "greenstones" of the Victoria Mine.

J. W. GREGORY.

GLASGOW.

March, 1926.

## THE SUDBURY LACCOLITE.

SIR,—Professor Coleman in his reference to me (p. 110) confuses together two questions which are, to my mind, quite distinct, viz. the relation of the norite to the underlying ore-bodies and its relation to the overlying granophyre. On the former question I am quite at one with him; but I cannot accept the "transition" from norite to granophyre as evidence that the two have been differentiated in place from one common magna under the influence

of gravity.

The thick sheet of norite, like other large bodies of basic rocks, is variable, but I can see in it nothing resembling a vertical variation in accordance with density The thick sheet of granophyre is less variable, and again without any appearance of order. Between the two comes a much smaller thickness of rocks of generally intermediate composition, not sharply divided from either norite or granophyre. These rocks vary irregularly, with a strong suggestion of heterogeneity, and closely resemble some familiar to me in the western isles of Scotland, where they are demonstrably hybrid products. The natural inference is that the granophyre was independently intruded after, but not long after, the sulphidebearing norite, and that some commingling took place where the two came together. My own acquaintance with the Sudbury laccolite is limited to one brief visit and the study of a series of specimens collected, but all that I have since read (of observed fact as distinct from speculation) has gone to confirm the opinion then formed.

ALFRED HARKER.

CAMBRIDGE.
12th March, 1926.