

CORRESPONDENCE.

A GLACIAL TRACK IN THE PEAK DISTRICT OF DERBYSHIRE.

SIR, — Near Potluck House, $1\frac{1}{4}$ miles east-south-east from Peak Forest in Derbyshire, there are numerous boulders of an olivine-dolerite with analcime, zeolite, and chlorite, the occurrence of which, together with an outcrop of the Lower Lava of the district, has led Bemrose (*Q.J.G.S.*, 1907, 241) to infer the existence of an intrusive sill at this place. Detailed examination shows, however, that the boulders are not in situ:—

(1) The soil round the boulders is that characteristic of limestone, and contains small chips of limestone and chert.

(2) Small excavations show only limestone.

(3) All boulders are standing on an approximately level surface of limestone.

(4) Only the surface of the boulders is weathered; the interior of the rock is quite fresh.

(5) Fine, medium, and coarse varieties of rock are assembled without order.

(6) The only metamorphosed rocks in the vicinity are a few scattered boulders of partly recrystallized limestone which may be matched with similar limestone at Peak Forest.

(7) The only neighbouring igneous rocks are thin, amygdaloidal lavas.

Since many of the boulders are over 10 tons in weight, and the nearest known outcrop of a similar rock is at Peak Forest, the suggested mode of transport to their present locality is by ice. Support is gained from the occurrence of other boulders of an identical type of dolerite eastwards of Potluck House, ranged along a valley stretching from west of Peak Forest, through Potluck House, to Eyam and Stony Middleton. Near Stony Middleton was found a small well-rounded boulder of granite, closely resembling that of Galloway.

During the Glacial epoch the high ground of the Pennines was covered with ice, partly local, but partly extraneous. A line of flow for this extraneous ice is now postulated. It seems to have been hemmed in to the north by Brock Tor, and to the south by Dam Cliff. From here it extended over Pittle Mere, giving a short branch across Potluck House and Wheston, while the main line continued to Lane Head, Wardlow Mires, and Highfields (Stony Middleton), with small branches to Litton and Cressbrook Dale and to Eyam. These were possibly not the full limits, but the further evidence is indefinite.

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