CORRESPONDENCE

UPPER YOREDALES AND MILLSTONE GRIT RELATIONS IN THE STAINMORE COALFIELD

SIR,—In his interesting account of the Stainmore Coalfield (*Geol. Mag.*, xcii, 1955, 218–230), Dr. T. D. Ford claims that the Millstone Grit there oversteps the Mirk Fell Beds and "Fell Top" (*recte* Stonesdale) Limestones of the outlier, and that the limestone-outcrops at the mouth of Craghouse Gill, referred by me (*Proc. Geol. Assoc.*, xlvi, 1935, 124) to the "Fell Top" Limestones, lie above the lowest member of the Millstone Grit.

There are good sections of the Upper Yoredales and early Millstone Grit a short distance south-east of the Stainmore outlier, both north and west of Nine Standards. This ground has been revised of recent years by Dr. A. J. Rowell and myself and it is hoped to publish an account of our work shortly. One result of it has been the recognition of the importance of a marine horizon between the Upper Little and Crow Limestones for which we propose the name Faraday House Marine Band: it overlies Tiddeman's (*Mallerstang Memoir*, 1891, 83) "lower flags" above the Upper Little Limestone and was described by him as having "a brown gingerbread-like top with fossils". This crosses Faraday Gill under Nine Standards, close to a ruined hut known as Faraday House. My failure to recognize the importance of this persistent marine horizon, which can be followed far to east and south, led to serious errors along the southern edge of my Stainmore map.

In the Stainmore outlier, Dr. Rowell has recognized the Band in Coldkeld Beck and Intake Gill in the south, and in Mousegill Beck due south of Stricegill Farm, in each case a little below the sandstone taken by Dr. Ford as the basal Millstone Grit. This sandstone is, however, the local representative of the Ten Fathom Grit for which we propose the name Uldale Sill, from Ul Dale, just over the Yorkshire boundary at the head of Birkdale, since it corresponds to the upper part only of the Ten Fathom Grit of Swaledale, the Faraday House Marine Band lying in the middle of the latter.

Above the Uldale Sill follows the Crow Limestone, both in the outlet and on the main outcrop. This is succeeded by a thick mass of shales in which lie (in ascending order) the Lower Stonesdale Limestone, the Upper Stonesdale Limestone, and the Mirk Fell Gannister. It is these limestones which outcrop at the mouth of Craghouse Gill, their section agreeing well with that seen in Ul Dale:

Craghouse Gill.	*Ul Dale.*
Shales (cut off by fault).	Shales, 30 ft.
Limestone, 1 ft 6 in.	Limestone, 2 ft.
Sandstone, 3 ft.	
Shales, 18 ft.	Shales, 24 ft.
Limestone, sandy below, 1 ft. 10 in.	Limestone, 2 ft.
Shales (cut off by fault).	Shales, 14 ft. 6 in.
	Crow Limestone.

Contrariwise, such limestones are never seen between the first and second lowest members of the Millstone Grit of the Askrigg Block. In brief, Dr. Ford has misidentified the Uldale Sill with the basal Grit and the great overstep claimed by him does not exist.

I note that Dr. Ford applies the name Dent Fault to what I have termed (op. cit., 132–7) the Boundary Fault of the Coalfield. The true Dent Fault disappears under the New Red beds at Thringill, south of Kirkby Stephen, and there is no justification for identifying it with a fault several miles away and with which it has no physical connection.

J. SELWYN TURNER.

DEPARTMENT OF GEOLOGY,
UNIVERSITY OF LEEDS.
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