Professor Kendall's map, though it purports to be copied from those of the Geological Survey, exaggerates the moraine-like character of the two bands of sand and gravel by omission of the significant outcrop east of Naburn.

He complains of my having stated the height of the village of Stillingfleet, which was inserted to show that the sands and gravels there occur only 10 feet above the level of the Ouse and at the same height as the sands at Deighton Grove. Why should Professor Kendall transfer the height of Stillingfleet to the ridge near that village?

Professor Kendall does not reassert his view that the band from Fulford to Escrick is an esker. It is, of course, true that the lower part is covered by the Warp Clay so that it is invisible; but the osar structure should be recognizable in the exposed part in which there are good sections in a series of gravel pits. There is nothing in Professor Kendall's restatement of his views either to show that the Fulford-Escrick band of gravel is an osar or to overcome Professor Bonney's weighty objections to the view that the two crescentic ridges of drifts should be regarded as moraines, although Professor Kendall may regard acceptance of that identification as his shibboleth in glacial geology.

My paper was written in the hope that by summarizing the distribution of English esker formations (in accordance mainly with visits made to them during the past twenty-five years), and by calling attention to their apparent absence from many parts of the country, other examples would be recognized and recorded. In the classification on p. 42 of my paper I have included, with one exception, only kames which I have personally examined; the two osars are accepted on the evidence of Professor Boulton's paper and on information kindly supplied me by Mr. Dixon, which seemed conclusive. I hope that investigations similar to theirs will fill in some of the gaps on what appears to be the remains of a long series of kames with occasional osar along the line where the glaciers ended on the English lowlands.

J. W. GREGORY.

## THE PETROLOGY OF THE PENNANT SERIES.

SIR,—Mr. E. Dixon, of H.M. Geological Survey, has kindly called my attention to an error in my paper in the February number of the Magazine. On p. 91, the statement "areas of Lower Coal Measure age were undergoing denudation" should, of course, read "areas similar to those of the Lower Coal Series, were undergoing denudation", as there is no evidence of the presence of Lower Coal Measures in South Wales.

A. HEARD.

DEPARTMENT OF GEOLOGY, UNIVERSITY COLLEGE, NEWPORT ROAD, CARDIFF. 20th March. 1922.