

part of England, perhaps some of the authors of these communications may feel inclined to refer to the observations I have recorded; and I only regret that all my spare copies have long since been used up.

GEOLOGICAL SURVEY OFFICE, DUBLIN,
16th February, 1871.

EDWARD HULL.

GLACIATION OF THE LAKE-DISTRICT.

SIR,—Allow me to make a few more remarks on the question of the glaciation of these dales—I think they will be my last.

Let not Mr. Mackintosh suppose that Mr. Rutley and I have combined to make out a case of “The Queen *v.* Mackintosh.” I differ from them both. A friend of mine, accustomed to the aiguilles and horns of the Alps, remarked that our hills looked like great heaps of rubbish shot out of a cart; and “a distinguished personage” once said to me with characteristic vehemence—“The whole of Cumberland is one vast *roche moutonnée*.”

Is not this the result we should expect from a thick sheet of ice moving across the whole country, leaving its marks in boulders and glaciated rocks near the Tarns of Busco at a height of 2,300 feet, in scratches across the water-shed between Grasmere and Loughrigg Tarn, in boulders on Silver How, in scratches across the water-sheds of Kentmere and Long Sleddale, and finally, as Mr. Croll suggests, in the erratics of Stainmoor?

If, as the climate grew warmer, this sheet of ice shrank into glaciers of the Alpine type, should we not then have such scratchings and roundings as we find in the bottoms and along the sides of the dales?

These scratches in the valleys would then be more recent than those across the water-sheds.

I do not understand how the want of parallelism in some of the scratches is any bar to our supposing them to be the product of land-ice. When two ice-currents meet, the stronger will deflect the course of the weaker; and if its strength vary ever so little, according to the season, so also will the direction of the scratches.

Let not Mr. Mackintosh say:

“Proveniebant oratores novi, stulti adolescentuli.”

I speak only of what I have seen in the last three years in the valleys reaching from Little Langdale to Long Sleddale, and in the Green Slate area. The rest of his paper I leave to those who know the country he treats of.

GEOLOGICAL SURVEY, GRASMERE,
16th February, 1861.

GEO. HYDE WOLLASTON.

THE SUPPOSED THERMAL SPRINGS IN CAMBRIDGESHIRE.

SIR,—The explanation which the Rev. O. Fisher suggests as to the cause of the heated water in the fen wells, to which I called attention at Liverpool, is that which, when I first heard of the circumstance, occurred to my own mind.

I am quite disposed to accept it, if it can be made to square with the facts, as I confess I am unable satisfactorily to explain the