

excavated by Jones than that it should have been hollowed out by a stream."

Now, Sir, if Mr. Green had put "cart wheels," in place of the name for which I have substituted "Jones," I think it would have been still less incredible, etc. But the above is an intentional misrepresentation of my argument altogether. "Jones" does not happen to be an agent of denudation in the geological sense, at least; but on this my reasoning hangs.

What I stated was this,—that of two acknowledged agents of denudation, the sea on the one hand, and streams, etc., on the other, we have positive proof that the former overspread the region of Todmorden valley, and we have no evidence of the latter, *therefore* "it is less incredible," etc.

To conclude, Sir, I think it would conduce more to the advance of science if discussions of this kind were confined to the region of physics; attempts at proving, or disproving, the soundness of speculations on natural phenomena by a logical syllogism are, as it appears to me, scarcely creditable to men of science.

I remain, yours faithfully,

EDWARD HULL.

MANCHESTER,  
16th November, 1866.

#### PRE-HISTORIC DWELLINGS IN GALWAY BAY.

*To the Editor of the GEOLOGICAL MAGAZINE.*

DEAR SIR,—I have just learned from the Rev. W. Kilbride, vicar of the Aran Isles, at the mouth of Galway Bay, that he and my old college chum, Capt. Rowan, of Tralee, have discovered on the large island, under the Sand-dunes south of Tramore (*anglicè*, the large strand), and extending from them seaward below high-water mark, ancient habitations, consisting of Cloghauns, Fosleac, Kitchen-middens, etc., etc. This ought to prove that the land about Galway Bay has sunk last, not risen. If this is the case, "The Old Lake" mentioned in the paper "On the Rock Basin of Lough Corrib," in the GEOLOGICAL MAGAZINE for November, may have been partly formed since the Glacial period. The bogs now below high-water mark may also have been formed on high land; but still the fact remains, that the morass between Black-rock and Black's-hill, in which peat is forming and trees growing, is below high-water mark.

G. HENRY KINAHAN.

RECESS, CONNEMARA,  
Nov. 10, 1866.

#### THE DENUDATION OF THE WEALD.

*To the Editor of the GEOLOGICAL MAGAZINE.*

SIR,—In the last number of the GEOLOGICAL MAGAZINE, (p. 484), the Rev. O. Fisher mentions our paper on the Medway Gravels and the Denudation of the Weald;<sup>1</sup> and after saying that we "rely much upon a river gravel at an elevation of 300 feet," he adds, "I do not

<sup>1</sup> Quart. Journ. Geol. Soc., 1865, Vol. xxi., p. 443.

know the locality; but does it follow that because the river has once flowed at a higher level, therefore the subsequent degradation of the surface is the work of the river?"

Without discussing Mr. Fisher's views at length, we would beg to call his attention in the present instance to the fact that between the gravel at the 300-foot level and the present river, there exist enormous deposits of gravel and brick-earth at all intermediate heights. From this we infer, as we stated in our paper, "that the river deepened its bed gradually, and that since the Medway flowed at the 300-foot level, no agents except rain and rivers (and possibly river ice) can have been working at the denudation of the rocks contained within the basin of the Medway" (p. 464). During the time that this was going on, at all events, the valley could not have been excavated by an ice-sheet, although several facts mentioned by us point to the existence of ice, but on a much smaller scale than what is suggested by Mr. Fisher, and with different results. (See pp. 458, 465, 469.)

Your obedient servants,

WILLIAM TOPLEY,  
GEOLOGICAL SURVEY OFFICE,  
Nov. 10, 1866.

CLEMENT LE NEVE FOSTER,  
BREAGE, NEAR HELSTON, CORNWALL.

#### ON FAULTS IN THE DRIFT-GRAVEL AT HITCHIN.

*To the Editor of the GEOLOGICAL MAGAZINE.*

SIR, — In the last number of the Quarterly Journal of the Geological Society there is a paper by Mr. Salter, on some faults in the Drift Gravel at Hitchin, in which the author has expressed himself I think rather more decidedly than the facts of the case warrant.

Mr. Salter mentions two sections: The first is seen in a large chalk-pit immediately to the south of the Hitchin Station, and shows Chalk capped by a mixed mass of gravel, sand, clay and brick earth. As far as I could make anything out of this confused mass, the different members seemed to lie in lenticular-shaped beds, and not to have any definite order of super-position; indeed, I could neither here nor elsewhere in Herts. and Buckinghamshire establish any subdivisions among the drifts that were of the least value, and came at last to put the whole together under the comprehensive name of Boulder-beds. To return to the section: these Boulder-beds rest on a very uneven surface of Chalk, and my impression was, that the inequalities at the junction had been produced by denudation, or by water percolating through the gravel; and, though I paid several visits to the spot, I never saw anything that looked to me like a fault. Far be it from me to deny there are faults, but I do think that, if they had been as palpable as Mr. Salter represents them to be, they would not have escaped my notice. With regard to the other section, close to a bridge, crossing the railway a little further to the south, I dare speak more positively, for I feel almost certain that the gravel here lies in a large pipe in the Chalk. Do the other faults affecting the Drift, of which we hear from time to time, rest on such evidence as this?

I am, Sir, your obedient servant,

A. H. GREEN.

116, DODSWORTH ROAD, BARNSLEY. Nov. 16th, 1866.