

Galway the geological age of the rocks is quite plain to those who will take the trouble to carefully work them out in detail; some of these rocks are excessively metamorphosed, in places being altered into granite, yet these granites can be traced into gneiss, and from that through schist and the "submetamorphic rocks" into rocks that contain fossils similar, according to Baily, to those characteristic of the Llandeilo rocks. Yet now we are told that the extremely metamorphosed portion of these rocks "are probably of Laurentian age." In one of the papers previously referred to, Sir R. I. Murchison made a somewhat similar statement, but in a subsequent paper he retracted it.

G. H. KINAHAN.

OVONA, Dec. 8th, 1881.

"MONTALBAN" ROCKS IN SCOTLAND.

SIR,—In the published account of the very interesting and important address delivered before the Geological Society on Nov. 16th, by Dr. Sterry Hunt, "On the Eozoic Rocks of Europe as compared with those of North America," it is stated that the "Pebidian of Hicks includes both the Huronian and the Montalban, to which latter belong, according to the speaker, certain gneisses and mica-schists both in Scotland and Ireland." I have repeatedly expressed the opinion that the great Pebidian formation, as at present defined in this country, will have to be divided into several distinct series, and that it is not improbable that we include in it now formations unconformable to one another. In describing the Scotch rocks (*Proc. Geologists' Assoc.* vol. vii. p. 20), I called special attention to a series of gneisses and mica-schists along the sides of Loch Eil, and I said that these "differ considerably from those further west, and strike from N.E. to S.W., with an average dip of about 45° to the N.W. They alternate with a corrugated mica-schist and with quartzose bands, which are spotted with a greenish micaceous mineral. These I look upon as newer than the Loch Shiel series, and probably faulted down against the latter. They should probably be classed with the Pebidian rocks of Anglesea, and with others to be further referred to in the more central parts of Scotland." I showed specimens of these rocks to Dr. Hunt, and he immediately recognized their great resemblance to his Montalban series. My chief reason for including these in the Pebidian was that they are undoubtedly newer than the gneisses farther west, and that they had the general strike of the undoubted Pebidian rocks found along the Caledonian Canal. That they will, however, in time have to be separated from the latter is certain, and that they moreover occupy extensive areas in the Grampians, I have proved from careful examination. At Tyndrum, and also in many areas to the north-east and east, they are well exposed. Indeed, they may be said to be the most important series in the Grampians; hence I proposed to Dr. Sterry Hunt that they should in future be separated from the Pebidian under the distinctive name of "Grampian Series."

HENDON, Dec. 1881.

HENRY HICKS.