the Ketacumna, Blanch, and Moose rivers, the latter being a continuation of the Ottawa. At its eastern side, and near the head, it also receives the Ottawa river, at present the highest outlet from the lumbering districts enclosed in the bight of the Moose river.

Lying north of this curvilinear range of mountains, and approximately paralled to it, is the great water-shed, which is reached, after ascending the "fifteen" rapids on the Moose river, by the chain of lakes peculiar to it and in which the Abbitibbie and Great Moose rivers take their rise, and which, after flowing northwards, join at "The Mattawa," 20 miles south of the apex of James' Bay, into which, finally, they discharge their party coloured waters. The southern slope is drained by the Michipicoton and other streams which flow southwards through a mountainous and unproductive country into the great lakes, while the St. Lawrence receives the waters of the south eastern slope, through the Ottawa river.

In connection with these general features I may state a fact, which, although well known to yourself, may not generally be understood. In crossing the great water-shed, or "height of land," twice, and on different meridians, I remarked that, both it and the mountain range, each send out antler-like spurs—those of the mountain chain losing themselves in the comparatively level country to the north, while those of the water-shed contain a similar feature, less marked no doubt, but not less real, as indicated by the courses of rivers and streams, and if accurately delineated would produce a most remarkable contour.

As regards general geological features, the country south and south-east of the "height of land," and lying all along those lakes which discharge into the Ottawa and Michipicoton rivers, nearly all, if not all, is primary rock, composed of gneiss, granite, trap, and an undefinable micaceous greenstone, consisting of laminæ, more or less irregular in thickness; also, immense quantities of ice drift of every conceivable variety of primary rocks. This greenstone is observable as far north as Abbitibbie lake, its surface invariably denoting the serrating action of former ages. For some distance down the Abbitibbie river, rock of any kind seldom crops out in the banks, except at portages, until, at lat 48° 44' 43" N., primary rock and Abbitibbie clay give place to small but increasing quantities of magnesium limestone, which, with large quantities of gypsum, appears to underlie the whole country to the north-west of this point, on the Abbitibbie river, and to extend over an indefinite area north-west of the Moose river. Since my return I have given the details of this latter formation much study and reflection; but I consider it would be rash to attempt to deliver any decided opinion on a question involving so much, until after consultation (as kindly suggested by you) with some eminent Geologist.

The highest lumbering districts observeable on the Ottawa, terminate at *Lac des Quinze*, at the head of the "Fifteen Rapids;" from which point, and up to the "height of land," the white pine gradually disappears, and is replaced with spruce, red pine, birch and poplar. On, and beyond the