entian forming the hill range between the two branches of the Humber River.

On the north side of Grand Lake and eastern end of the great island, the lower members of the formation are well displayed, forming extensive cliffs for a considerable distance along shore. These comprise the basic conglomerate pyrochists or Horton series and carboniferous limestone series. The latter are chiefly made up of bright red marly sandstones, thin limestones, and occasional pretty coarse conglomerate. The absence of gypsum is remarkable, considering the vast display of this rock in the Bay St. George and Codroy troughs to the southwestward. Not one particle of gypsum was come across anywhere in the region of the Grand Lake. The pyrochists or bituminous shales occupy a considerable strip of the shore on the north side of the lake, and extend back a mile or so. They are arranged in the form of a long, narrow trough much broken and disturbed. On one small brook flowing into the lake, a mile above Whetstone Point, a considerable body of these shales are exposed in the bed of the brook, tilted up at a high angle and folded over several times. Amongst these, several bands of very black carbonaceous shale, with impure coaly streaks, are seen crossing the brook. It is not improbable that some of these shales may prove to be sufficiently bituminous to produce mineral oil in more or less available quantities if treated in the proper manner by distillation. So closely do these pyrochists, with their inter-stratified, finely-micaceous, thin-bedded, greyish sandstones resemble the core taken up from bore hole F this season, that I am strongly impressed with the idea that the latter are belonging to the same horizon. Should this prove to be the case, then it follows that we hit upon a portion of the formation several hundred feet below the true coal measures. Their occurrence in the position found can only be accounted for either by supposing a fault to bring up the lower members, or what is more probable, a sharp anticlinal fold striking up and down the lake, which is borne out by the high angle of inclination. The coal found at bore A in 1879 would then, of necessity, lie in a separate trough from that occurring on Coal and Aldery Brooks. This view of the structure lying beneath the waters of the lake, and great superficial mantle spreading over the country to the eastward, has already been foreshadowed in my report for 1891, as the following quotation will indicate:—