

CONCLUSIONS.

In summing up the conclusions of this paper it may be said :

That glaciers, whilst contributing some results, had not much effect in eroding the lake basins proper, or in shaping the present general outlines.

That the superficial deposits are the accumulations of denudation during immense periods of time since the Carboniferous and earlier eras, and are not to be specially credited to the operation of glaciers.

That Lake Superior is the most ancient of the lakes, dating its origin as far back as Cambrian, Keweenaw and Huronian times; that it is, in part at least, a synclinal trough; that volcanic action has had most to do with its origin and the shaping of its coasts; that its early outlet was through the depression in Whitefish Bay and that its waters joined the great pre-glacial river system at or near the Straits of Mackinac.

That Lakes Michigan, Huron and Ontario were originally the bed of a pre-glacial river which first crossed the Ontario peninsula along the Niagara escarpment, and afterwards was diverted to a course by way of Long Point, on Lake Erie and the Dundas valley; that their basins were largely defined by the elevation of the Niagara and Hudson River escarpments, and in more recent times by warping of the strata and deposit of superficial sands and clays which blocked the old river channels and resulted in the lake basins retaining their water on the final elevation of the land to its present general levels.

That the pre-glacial river system expanded in time into smaller lakes in each of the present basins of Lakes Michigan, Huron, Erie and Ontario.

That Lakes Erie and St. Clair are the most recent of the lakes, and have at one time been more closely united, and that the formation of this united lake was due to the blocking of the old outlets both by superficial deposits and warping of the strata, and to the water being thus retained