

The scenery along such a river presented alternately the low wide landscape of the open plain and the deep contracted view of the narrow pass, each passing into the other, as the underlying rocks change from soft to hard or from hard to soft. The spread of drift-material over the face of the country left the narrow gorges completely choked. As the rivers began again to flow after the ice-age had passed away they were unable to find their ancient channels along these narrow chasms, and consequently the water accumulated in the valley until it rose sufficiently high to flow over the barrier at its lowest point, when it commenced anew the task of cutting a gorge through the same limestone ridge, first in the drift material on the surface, and then in the solid rock below. This process may now be seen going on at Niagara Falls.

The great American lakes therefore are nothing but mere drift-dammed pools, filling the wide portions of the channels of pre-glacial rivers, while the narrow chasms connecting them are concealed by superficial deposits of clay and sand. Should the present condition of things continue long enough, the rocky barrier between Erie and Ontario will be again cut down, and the present lake above the Falls converted again into the broad open plain of the later Tertiary age. New falls or rapids will be developed near Detroit as the excavation of the Erie basin proceeds, and the levels of lakes Huron and Michigan correspondingly lowered; while by the gradual wearing down of the rocky bars now forming the rapids on the St. Lawrence, as much of the water in Lake Ontario will be carried away as the relative levels of that lake and the Atlantic will allow. But neither Michigan, Huron, nor Ontario can ever be laid dry by this process, and their end can only come, catastrophes excepted, by the slow but steady process of silting up. The same process to some extent must occur in Lake Superior. The wearing down at the falls of St. Mary will lower its level, but the deposit from its tributary streams alone can entirely obliterate it.

One result of the Quaternary age has therefore been to transfer a great part of the basin of the pre-glacial Mohawk to the basin of the St. Lawrence, a younger and Quaternary river. But no great alteration in level would be required to change again the course of these northern waters. The sewers of Chicago now carry the water of Lake Michigan into the Mississippi valley, the watershed between the two being only 10 feet above the