

on the same level; 1,280 years for the overflow into the Mississippi drainage (the artificial canal would reduce this estimate to 720 years); and 2,560 years for the general drainage of the lakes into the Mississippi. In 5,000 years, the whole river as far as Buffalo would be drained towards the south.

In spite of taking the minimum rate of recession and the probable errors the closeness of these results satisfactorily confirms many of the calculations based upon Niagara as a geological chronometer.

This paper, giving the principal results of investigations into the lake history, thus shows the writer to have been greatly affected by the studies of his co-workers. Indeed all of the researches by the different observers have been very much dove-tailed, so that our present knowledge of the history of the great lakes and Niagara falls is the result of the labors of many individuals. Besides the names of those already mentioned, we should add those of Shaler, Tarr, Wright, Russell, Upham, Kibbe, Lincoln, Brigham and Scovill, with the names of Hall and Lyell, too well known to need special mention.

To complete the review mention should be made of the writings of Mr. F. B. Taylor, in connection with his important survey of the Nipissing outlet of the Algonquin basin, and of the dissected shore lines of the upper lakes; and of the important investigation of Central New York by Prof. Fairchild.