

Many of the members here present have read of the anxieties of shipowners and vessel captains about the low stage of water last year, and there is little wonder at their alarm when official records kept by the United States Government show that before the close of navigation in 1891 the water in Lake Huron was  $3\frac{1}{2}$  feet lower than the level in June, 1886.

What no doubt increases the alarm is that this is not a sudden dip, but a steady fall of half a foot a year since 1886. The members of this Association know sufficient of marine matters to understand how seriously this action of the water may have affected the earnings of the splendid 3000-ton steamers belonging to the States, trading from Lake Erie to Lake Superior, built in 1886, when the water had stood at a high and apparently permanent level for four years. Vessels which when loaded were drawing all the water the canals and artificial channels could give them in the high stage of 1882 to 1886, found on their last trips in the fall of last year  $3\frac{1}{2}$  feet less water; that is, if they made the trips at all; which they could only do with half a cargo. To these men, to Canadian shipowners, and to lake commerce generally, the question of the maintenance of the lake level is a very important matter.

From records of the rain and snowfall kindly furnished me by Charles Carpmael, Esq., it appears that the diminished quantity of precipitation since 1886 is nearly equivalent to the amount the water has fallen below the mean level since that date.

In Lake Superior the rainfall has been normal, and the level has not lowered like that of the other lakes. Those well versed in the subject of forestry will be able to say whether the clearing of the woods by fire and axe is likely to cause a permanent diminution of rain and snow.

Evaporation plays an important part in the lowering of the level of the lakes, no doubt, not merely from the sun's rays (which in the course of the survey my officers and myself had reason to feel hot enough at times), but by the dry westerly winds accompanying a bright sky, and blow-