

panied by a light vapour over the water. In the ascent from this stratum of air directly in contact with the water, to the top of the bank, there was a constantly varying but gradually lower temperature. At one and a-half feet above the water the readings fluctuated between .5° and 3° lower than at one inch above the water, and on the top of the bank these fluctuations ranged from .5° to 4.5° lower than at one inch. In only one case was the reading on the top of the bank higher in range. Four illustrations are here given to show the relative temperatures (1) during a continuous dense fog, (2) and (3) at different hours on the same cloudy day, and (4) at sunset on a cloudy cool day :

	(1)	(2)	(3)	(4)
	9 a.m.	4 p.m.	7 p.m.	7.15 p.m.
	Aug. 16.	Aug. 31.	Aug. 31.	Aug. 28.
	dense fog.	cloudy.	cloudy—water absolutely calm.	cloudy— cool.
Water at 3 ft.	71.75°	68°	67.2°
Water at 1 in.	71.75°	68°	68.25°	66.5°
Air 1 in. above water..	68.5°	66°	66.25°	57°
“ 1 ft. “ “ ..	66.75°	63.5°	61.5°	55.5°
“ 8 ft. “ “	63°
“ 16 ft. “ “ ..	65.75°	62°	60.25°	55°

In the case of the second illustration, when the thermometer at 8 ft. up the bank was placed upon the moist ground there, the mercury rose from 63° to 64.5°. On the top of the bank, about 300 ft. inland in the fields away from the woods, it remained at 62°, but in the woods 200 ft. nearer the bank of the river it fell to 60.5°, the thermometer in each case being placed at about 18 in. above the ground.

CONCLUSIONS.

The readings are suggestive of the condition of probably most of the tributaries, from the south, of the St. Lawrence and Great Lakes during the hot months of summer. The tests were not sufficiently varied, as to place and time, to warrant definite deductions, but it may be said, in general terms, that these rivers, which in winter are paved with two