

stands very high on the British scale of purity ;" and again, "This particular Ottawa water would stand very high compared with the average water supplies of Great Britain even after filtration." Lest it should be alleged that this water was taken from above the mills, permit us to quote further from the same Resume as to the purity of the water supply of Montreal, which is taken from the Ottawa River below the mills, as follows : "On referring to the water analysis which I reported on the Montreal supply in 1879 and applying to these results the table of valuation, I find that notwithstanding the including of matters in suspension. Montreal water stands very high by comparison Montreal water must therefore be exceptionally pure under such a system of filtration as I have suggested."

A. McGill, B.A., B. Sc., Assistant to the Chief Analyst, under date the 15th September, 1890, in Bulletin No. 18 of the Laboratory of the Inland Revenue Department, writes as follows :

"To sum up this part of the question, I am of opinion that in the results of analysis here shown we have proof that organic matter (mainly vegetable) in very slight quantity is added to the water of the Ottawa throughout its course between the Chaudiere Falls at Ottawa and Carillon ; that this organic matter, in so far as it is vegetable, is in too small amount to materially change the character of the river ; that the nitrogenous organic matter convertible into ammonia by boiling with alkaline permanganate does not decrease, but even increases as the river proceeds downwards, being higher in amount at the foot of the Lake of Two Mountains than at the Ottawa city intake, and that in the *incompletely oxidised sewage* indicated by this factor of the analysis lies *the most objectionable feature* of the water of the lower Ottawa for domestic use. I do not think that this nitrogenous component is due to sawdust, nor to any other cause than ordinary sewage : "The limit of safety in the matter of albuminoid ammonia is fixed by Wanklyn and other authorities at 0.150 per million, a number which is exceeded by the water of the Lake of Two Mountains, both in the present examination and in that of April (see Bulletin 15). It is, however, unwise to press any arbitrary standard too closely, and I cannot, from my knowledge of the history of the Ottawa river water, feel justified in condemning it as dangerous ; at the same time, I feel sure that it could be greatly improved by proper treatment, not only in the lower reaches of the river, but at the *Ottawa city intake*."

And Thomas Macfarlane, F.R.S.C., Chief Analyst, under date of the 30th June, 1888, in Bulletin No. 5, and comparing nineteen different samples of water supplied artificially to the towns of the Dominion, writes as follows :

"From this comparison it will be seen that the Ottawa water stands almost at the bottom of the list. This is, of course, mainly owing to the large amount of vegetable organic matter which it contains, but it