

apathy and fear. On the other hand, we cannot fail to be encouraged with the progress already made and in the promise for the future.

I for one am proud to belong to this generation whilst looking forward to better ones for our children and children's children. I am not ashamed of the land in which I live and am proud of Canada, the

land of my birth, but I feel justified in anticipating societies which are more humane and peoples which are more efficient when man rises superior to his environment and adjusts the individual's rights to mankind's needs. Nor shall we be denied our part in this millenium if we do our full share of to-day's work and meet each new day with the courage born of having done one's best.

METHODS ADOPTED BY THE CITY OF SASKATOON FOR THE PURIFICATION OF DOMESTIC WATER SUPPLY

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In the report of the proceedings of the first annual meeting of the "Commission of Conservation" held in Ottawa, January, 1910, there is published an address delivered by Mr. Charles R. Coutlee, C.E., on the Water Wealth of Canada. In the course of his address Mr. Coutlee says, in part, as follows:—"Increase of population at Calgary, McLeod and Lethbridge, will bring up the question of sewage contamination at Medicine Hat, which is down stream from all these places. The same difficulty, too, will arise later in Saskatoon."

Owing to the extremely rapid increase in population in the Provinces of Saskatchewan and Alberta, this difficulty, anticipated by Mr. Coutlee, has arisen sooner than was expected. The water of the South Branch of the Saskatchewan River is being polluted, not only by small towns and villages which are springing up along its bank, but also by the cities above mentioned; all of which are still discharging their crude sewage into the South Saskatchewan or its tributaries.

The City of Saskatoon is located on the South Saskatchewan River at a point approximately 700 miles from the foot hills of the Rocky Mountains. Owing to its passage over this long distance through various kinds of soil there is a considerable quantity of matter collected by it, which remains in suspension and solution. The matter in suspension, indicated by the turbidity, varies at different times of the year from 10 to 400 parts per million, and of this amount of matter in suspension about

75 per cent. is inorganic. In addition, the organic matter in solution at all times of the year amounts to 150 parts per million and the inorganic matter in solution to 300 parts per million.

While it is the general belief that none of the typhoid cases which have developed in the city during the past two years can be traced directly to the city water supply, yet the Provincial Bureau of Public Health maintains that a turbidity in water such as is presented in this case, consisting to a large extent of fine quartz particles, has an irritating effect on the intestinal canal and predisposes to enteric conditions. It would appear as if there were good grounds for this belief because the period of most typhoid comes immediately after the period of excessive turbidity in the water. For these two reasons therefore, namely:—Excessive turbidity and danger of contamination, the civic authorities of the City of Saskatoon, acting in conjunction with the Provincial Bureau of Health, decided that it was advisable to guard the public health by purifying the water which was being daily distributed to the city's consumers for domestic use.

Requirements of Water Being Used for Domestic Purposes.—Water which is to be used for domestic purposes should possess the following qualities:—

- (1) It should be free from disease-producing germs.
- (2) It should be free from those allied organic forms, which may not as yet be