through hundreds of yards of sand and fine gravel. Assuming this to be so, the advantages of natural filtration will be secured without the expense of inefficient artificial filter beds, or of extensive reservoirs or settling basins.

The plan proposed for Brantford amounts practically to a series of gang wells, about fifty being required for each million gallons per diem. As the wells will be only about 16 feet deep each one will be dug down to the clay stratum upon which a little reservoir will be formed, and from this a tile pipe about 6 inches in diameter will rise to the surface. The water pipe will be introduced within this and connect above with the gang pipes and the pumping machinery. A small reservoir, amounting practically to an extensive well or filtering gallery, and fed from the same sources as the gang wells, will be established near the works, and maintained for possible use in emergencies.

Ordinarily the water will be delivered direct from the bottoms of the wells to the consumers, and will have a temperature of about 56 degrees Fahrenheit in the hottest weather, sufficiently cool for drinking without the use of ice.

The public water supply question which we have briefly glanced at is one of the most profound interest and importance to every city and town in this Province; but the question of the drinking water supply of the rural population is one of even greater magnitude and consequence. About one-fifth of the population of Ontario, say 450,000 people, live in the cities and towns and about four-fifths, or 1,800,000, in the rural or country districts, and depend now as they always will depend, almost wholly on well water for drinking and cooking purposes. As the large majority of this Province rely on this source of supply it is fortunate that on the whole the supply is equal and commonly superior in quality for drinking purposes to that available for use in cities.

The water of a deep and isolated well is substantially equivalent to pure spring water. Such a water should contain little or no organic matter, and may be perfectly free from any trace of such under the microscope. Such a water when as usual free from an undue amount of mineral ingredients, is an ideal water for drinking purposes; it is nevertheless really available for a great majority of the 1,800,000 rural inhabitants of Ontario.

It would thus seem that the rural population ought to be well supplied with good, pure drinking water. Unhappily, however, the fact is that the rural population are not as a rule supplied with pure drinking water. On the contrary, that used by the great majority is impure and unwholesome, for at least a very large majority it is undoubtedly bad, and for a great number of these, for a large portion of the time, it is absolutely so offensive as to cause its use, unless boiled, to be as much as possible avoided.

The contamination of wells in cities and towns is a matter well understood, and the necessity of abandoning these in populous places is fully realized. But it is certain that no sufficient attention has been directed to the great subject of the pollution of the drinking water of the rural population. The living springs at farm houses, where such exist, are nearly always open holes receiving the springs, also dirt, dead leaves and foul surface water; the sides are covered with vegetation; they are exposed to the approach of farm animals and always accessible to dogs which often deposit the seeds of tape-worm. The wells are either open or imperfectly covered, and readily admit foul surface water; earth worms work their way into them through the surface soil; toads seeking water in dry weather creep under the imperfect covers and drop into the wells, the fragments of their dead remains being often visible in the water pails. The discharge of house slops and the droppings of fowls and cattle contaminate the adjacent soil. The wells are also often polluted by the drainage of barnyards, hog pens, privies, and occasionally even of slaughter-houses. Generally the water is only sufficiently polluted to impair the health of those using it freely. Occasionally from some of the above named causes it is so much polluted and for such long periods as to contaminate the whole blood of those habitually using it. Here is sufficient cause why occasionally an isolated family, apparently exposed to no contagious disease, may be smitten by a deadly fever, or perhaps all but swept out of existence by a putrid diphtheria.

The relation of impure drinking water to typhoid fever, diphtheria, and some other diseases, is beginning to be understood; but the essential importance of pure water as to maintaining a high standard of bodily health in the community is not much considered. If more than 75 per cent. of the human blood is simply water, it ought to be obvious to the lowest intelligence, that an ample supply of