Economy in Toronto University to go to Great Britain and examine into recent British legislation and make a report which will be considered by the Ontario Government in preparing future legislation. Mr. Mavor's instructions are:

"To make inquiries concerning the Workmen's Compensation for Injuries Act, 1897: (1) As to its effect upon workmen and employers, or in the words of the Act, 'undertakers'; (2) as to the effect upon special and particular kinds of manufacturing establishments, firms and corporations; (3) as to whether the Act gives satisfaction in labor circles, to labor organizations and to labor generally; (4) whether the machinery provided by the Act for the recovery of compensation works satisfactorily to workmen and employers, (5) as to whether faults are found with it, and whether there are complaints of a general or specific character in relation to the law, or to its working by either workmen or employers; (6) whether there has been much or little litigation under the new law; (7) whether amendments have been suggested, and, if so, in what particulars, (8) whether there is any general feeling against the principle of the Act, and, if so, to what estent; (9) whether it has had the effect of reducing wages in any particular industries; (10) or of excluding trom employment any particular classes of persons-and generally to make inquiries respecting any other matter which has a bearing upon the law or its working, or upon the recovery of compensation under the law."

For The Canadian Engineer.

WATER.

BY W. M. WATSON.

Water is one of the most useful liquids, and on it depends our existence. For example, in 1848, the French village of Bozel, which used water from wells, contained 1,472 of a population, of whom 900 were goitrous, which is a disease showing glandular enlargement of the neck. To cure this a water supply was laid into Bozel from the town of St. Bon, when the disease decreased so rapidly that in 1864 there were only 39 people having traces of the complaint. In one of the North Yorkshire towns in England low fever and general lassitude was chronic with the population of the place. After a searching enquiry by the Government, the water supply was changed, and afterwards the people brightened up and their general health became good. There are many such cases as these recorded, which proves that it is of the first importance that the water we use for domestic purposes should not only be plentiful and convenient, but also of the softest and purest quality. We often give half a dollar for a good meal; a good bath improves the health and vigor of the body more than two meals, and those who have a plentiful supply of soft water may have their own private bath appliance and enjoy a daily dip for less than five cents each. To be compelled to wash in hard water, or in dirty rain water after it has done duty in washing the filth from the roof of the house, and even then, the only quantity allowed being about three pints to each washing, is cruel and sinful, because the Creator has given abundance, and expects us to supply energy enough to pipe the water to our houses and use it without stint and without waste.

Canada has plenty of good potable water open to view in her lakes, rivers, and fresh water streams, which if kept free from poisonous sewage will probably supply future generations, should the population increase a thousand fold, and even should the population become so dense, or a part of the population be located too far away from any of the fresh water storage, or streams, there is another abundant storage with its reservoirs and streams under the earth's crust, even more plentiful than the storage that is visible above the earth, which can easily be drawn upon at will, and often at a trifling cost per head. There are eminent geologists who state that under the bottoms of both lakes and rivers, there is as much water stored in the earth's strata that leaks through the beds the water rests on, as the lakes and rivers themselves contain, and many of the constant and inexhaustible springs are fed from this source, because it cannot be affected by droughts.

Besides the water that percolates through the earth, under the lakes and rivers, a large percentage of the rainfall sinks below the soil, and often descends several hundred feet and collects into streams, rivers, etc. There are also large caverns, or pockets deep down in the interior of the earth where the water is stored in large quantities, besides many of the earth's strata are capable of holding in themselves large quantities of water that can be extracted from them by using a pump. Chalk and a loose sand will hold about one-third their own bulk of water; oolite, one-fifth; magnesian limestone, one-fourth; while hard compact sandstone and pebble beds hold only one-eighth, and hard granite only one-fortieth its own bulk; impervious weald clay holds no water.

The annual rainfall over the earth's surface may be about 30 inches deep, one-third will be evaporated by the sun, another be used by the herbage, or find its way to the lakes or streams, while at least the other third will descend below the soil, and make its way over the face of the impervious strata, or through the porous rocks and layers of gravel, until it arrives at open fissures in the faults of the strata, which will again lead to rivers that supply the underground reservoirs, or ultimately discharge into the sea, river, lake, or springs at a lower level.

In England over 60 per cent. of the population secure their water supply from the storage below the earth's surface, and but for this kind of water supply part of the dense population would be compelled to move. It is estimated that the supply of water that can be withdrawn from the earth is at last equal to nine gallons per square foot of the earth's surface per year, of course I mean that part of the earth which is not covered by sheets of water. Then, water is about the best carrier of refuse, and is the most sanitary method of removing excrements and foul soluble matter from dwellings. By compelling water to remove our domestic dirt and refuse, we keep the land surrounding our dwellings free from contamination and the atmosphere free from disagreeable odors. We can dispense with the sickening privy pits and disgusting cesspools, and have our modern sanitary conveniences at a trifling extra cost over the antiquated systems. Moreover, water after it becomes dirty with carrying the refuses, can be easily cleaned again. Its nature is such that if proper mechanical appliances are supplied, so that every atom of sewage can be well aerated, the fluid will return to its former brightness and chemical purity. Water is a good servant that is willing to do most of our lifting and carrying, and it undertakes to do all our cleaning free of charge. We cannot use all kinds of water for domestic purposes, therefore a considerable quantity of the world's water supply must be rejected because a considerable quantity passes through strata that are charged with chemicals or minerals which become incorporated with them.

In Europe, experience has proved that many large streams of water having various chemical qualities cross the countries almost in straight lines from sea to sea, sometimes being near the surface and at other places over a thousand feet deep. The town of Leighton Buzzard, England, cut an 8-foot internal diameter well, lined with cast-iron cylinders 64 feet deep. Then they made a boring and lowered a 10-inch diameter tube down 200 feet more. At this depth of 264 feet sufficient water was secured to serve the town. The water was bright and clear until