

in the vicinity. The Board of Health officials will be conferred with and a thorough examination of the waters from a bacteriological standpoint will be undertaken. After the scientific examination has been completed, Mr. Powell will report as to the nature and extent of the contamination and the precautionary measures necessary to protect the residents. The responsibility which rests upon each country in connection with the waters under examination will also be considered. The problem of investigating and inquiring into the condition of waters in different countries believed to be contaminated is now occupying the serious attention of every country where the danger is found, and it is most necessary that remedial measures be considered at the inception of the pollution. In such a connection a commission has for the past ten years been conducting scientific examinations on the waters of the Thames River in England.

**Toronto, Ont.**—Mr. E. A. James, Highways Engineer, is back in his office again after a tour of inspection of the work being done by the Commission in York County. At Unionville the abutments for the new bridge are finished, and the bridge at Markham Village has been started. In the western part of the county a new concrete bridge is under way at Kleinburg, and a 40-foot concrete retaining wall near Woodbridge to protect the roadway from the spring freshets of the Humber River is being built. The repair gangs are all out and busy at their work of keeping the good roads in proper shape. Spoken to regarding the road on Yonge Street, Mr. James explained that within the city limits, near Hogg's Hollow, it is badly rutted in places. Near the foot of the hill the oil put on by the Commission had not penetrated the earth, but had formed a crust on top. This was now breaking up, but the repair gang would soon have that in first-class shape. "If they are prepared to give us the money," said Mr. James, "we can easily lay asphalt roads in York County. But they would cost \$25,000 per mile as against the \$5,000 the Yonge Street roadway has cost. There is also the cost of repairing an asphalt roadway to be taken into account, and this would prove almost prohibitive in the county. The plant required is too cumbersome to be easily moved long distances over the county roads, and it would pay to move it only to districts where extensive repairs were necessary. Then a well-built macadam roadway is better fitted to carry the class of traffic that uses the country roads. Commissioner Harris compelled the owners to remove the cleats from the wheels of motor trucks in Toronto, because of the damage they did to the asphalt. What a heavy traction engine, with its cleated wheels, drawing a tank, would do to a country road built of asphalt can be better imagined than described."

**Toronto, Ont.**—One of the things which it is understood the Ontario Government may lay hold upon when the Legislature convenes early in the new year, is the problem of water purification and sewage disposal. The numerous instances of difficulty which municipalities have encountered during the past year and the general desire for reliable methods of solution were instrumental in the sending of Dr. J. W. S. McCullough, chairman of the Provincial Board of Health, to the Continent this summer to gather information on the subject in general. He returned recently from a nine weeks' tour of investigation and will present an authoritative report within a short time to the Cabinet. In the same manner a report will be made up for the consideration of the Federal House by Dr. C. A. Hodgetts, chairman of the Commission on Conservation, who travelled in company with the Ontario representatives. Dr. McCullough, in company with Dr. Hodgetts, made an especially exhaustive study of sewage and water conditions in Great Britain, and brought home voluminous notes on the different systems in use in the different cities. The aim in every case was to find the extent to which the civic authorities were succeeding in producing water for

domestic and public uses of a necessarily high quality and uncontaminated by the sewage, which perforce was disposed of in proximity. Twenty large sewage plants of different natures were visited in Great Britain. The water systems, while varying in smaller details, nearly all came under two general divisions of filtration, viz., mechanical and slow sand. Another feature, however, was observed in the ozone process utilized in Paris.

**Windsor, Ont.**—Governor Ferris, of Michigan, is personally urging the Governors of each State to name delegates to the Third American Road Congress, which will be in session at Detroit during the week of September 29th. Thirty Governors have named their delegates, and it is expected that a number of the governors will be present in person at the Congress. Governor McCreary, of Kentucky, which State has recently established a State Highway Department, expects to attend the meeting. It now seems assured that the heads of every State Highway Department from Maine to California will personally take part in the big meeting, and as a result of this unusual interest the demand for exhibit space by manufacturers has been unprecedented. All available space has been reserved by nearly one hundred manufacturers, who will display their products, including every kind of road-making machinery, engineering instruments, concrete machinery, bridges, culverts, concrete, wood block, asphalt, tar and oil preparations. Important progress is expected to be made in three great questions affecting the road movement. The Congress will endeavor to agree upon a policy of national aid, which, with the united support of the good roads workers throughout the country, will be submitted to the Congress of the United States. Steps will be taken at the session on State Road legislation, to be held under the auspices of the American Bar Association, to the formation through official action by the several states, of an interstate commission to codify and simplify existing State road laws. At present, most of the States are laboring under a weight of antiquated and contradictory road laws, and it is plain that the Commission will recommend simple, clear-cut and uniform road laws as a substitute for the mass of useless existing road legislation. Maintenance of roads will be discussed from every standpoint during the sessions held by the American Highway Association, the parent organization in the Congress, and the engineers will endeavor to determine among themselves upon the steps which should be taken in the several States to insure adequate maintenance.

**Winnipeg, Man.**—Considerable discussion has taken place in regard to what can be done by municipalities in the construction of good roads under the Good Roads Act, chapter 73, of the Statutes of Manitoba, 1912. Under this Act a municipality can issue debentures at a rate of interest not exceeding 5 per cent., spread over a period of forty years or less, which have to receive the approval and consent of the electors of the municipality in the usual way of all by-laws, and the interest on which is guaranteed by the Government, in order to insure the better sale of the debentures. The Government provides the municipality with an engineer, upon receiving a proper request by resolution of the council to do the engineering work for the municipality, lays out the roads, makes recommendations as to same, gives estimate of the cost, likewise of all bridges to be made, and generally furnishes the municipality with plans for the development of roads coming under the Act. The Government also co-operates with the municipalities in every way in order to assist them to bring their municipality under the Act, furnishing them free all engineering services, making plans, estimates, and carrying out the work of construction. By taking advantage of this Act taxpayers will find that the actual cost of construction may possibly be lessened, and by the issue of debentures payable in a long term of years the present taxpayer does not have to pay for all work done, but