

some illusions. He found there was really very little difference between the people here and those on the other side of the line. It was strange that the two English speaking people on this side of the Atlantic, who had made immense progress in other respects, should be so far behind in the matter of improving highways. Although there were three million miles of highways in the United States not much more than one per cent. of that distance had been permanently improved. During the last quarter of a century in the United States, attention had been devoted to the construction of railways rather than highways, and Canada was copying this example. This could not, perhaps, be deemed a mistake, but if it was thought necessary to diminish the cost of long-distance transmission by building railways, one-half the anticipated benefit would not be derived unless the railways were supplemented by wagon roads, so as to get the reduction of cost in the short as well as in the long haul. The people in the United States were awakening to the importance of this question, and now that the trans-continental lines had been built and the country grid ironed with railways, were devoting themselves to the improvement of the highways, so as to diminish the cost of transportation by horse and wagon.

MR. PATTULLO.

Mr. Andrew Pattullo, M.P.P., in an address which was followed with close attention, sketched the history of the formation of the good roads association. After the association succeeded in inducing the provincial government to appoint a provincial road instructor, the association ceased to have an active existence. This was a mistake because the association should meet at least once a year. The association managed to attract the ear of the country and no mistake had been made in the appointment of Mr. Campbell as road instructor. That gentleman had addressed over a thousand meetings and wherever he had spoken he had won approval and carried the judgments of his audience. The only regrettable thing was that there were not, in Ontario, half a dozen men of the same type as Mr. Campbell. The voting of a million dollars, by the legislature, for the improvement of roads, was another direct result of the association's work. How that appropriation was to be taken advantage of he could not say, but the matter was being threshed out by the municipalities, and it was to them that the legislature would look for guidance. "Have we reached the ultimate," asked Mr. Pattullo, and went on to say: "I believe not. I believe we will offer the municipalities of the province more money, in the near future, for the building of good roads. In saying that, let me frankly add that I do not conceive it to be the duty of the legislature to build the roads of the province. We cannot afford to do it. The best we can do is to offer you some

premium to help yourselves. I think, perhaps, the present assistance may be doubled or perhaps trebled, without drawing unduly on the resources of the province. We are just now discussing the taxation of some corporations; and without discussing what the result of future legislation may be, I believe that these great corporations, particularly the railway corporations, would be willing to pay a very large amount of taxation if the proceeds of such taxation were devoted to improving the highways of the country, because they would get the benefit of the expenditure as well as you." (Applause.)

COL. W. H. MOORE.

Col. Moore, the president of the National Good Roads Association of the United States, which has over 200,000 members, was the next speaker.

He said that he had listened with great interest to the address given by Mr. Pattullo, who told about the million dollar grant that the provincial legislature had given to the province for improving the present road system.

This grant he considered merely a trifling sum of money to the amounts being given by some of the states in the American Union, and instanced a case where one county in Texas is raising \$2,000,000. He assured his hearers that every dollar of money they spent in improving the roads of the country increased the value of their property fully ten per cent."

"The people are becoming so enthusiastic over this good roads question," said Col. Moore, "that it will be one of the strongest planks in the platform of the Canadian politician in the very near future."

Such has been the case in the States, where they have over three and a half million miles of roads.

He said that while the Ontario Good Roads Association is doing a great work, yet they should endeavor to form a Dominion organization, for the secret of getting good roads is due to organization, agitation, education and legislation.

FRIDAY MORNING.

Warden W. J. Anderson, of Lanark, presided at the Friday morning session.

CONCRETE CULVERTS.

Mr. David Moir, of Almonte, who was shown how to make concrete culverts last year by the expert sent around by the Good Roads Association, was the first speaker called upon. Mr. Moir, who had purchased some \$200 worth of moulds and is now making concrete culverts for townships, gave a short, practical address which he illustrated by means of moulds, sample pipes, etc., which he had with him on the platform, and brought out a number of valuable points in culvert construction.

Mr. A. W. Campbell, in the course of an address on culvert construction, strongly urged the use of concrete for this purpose, recommending tile for small sluices, arch-

culverts of concrete for openings over three feet in width, and concrete abutments for bridges.

FRIDAY AFTERNOON.

The closing session took place on Friday afternoon, Warden John Brennan, of Renfrew, presiding. The first speaker was Major James Sheppard, who discussed the use of implements in the construction of broken stone roads.

"You cannot," said the speaker, "get good roads without machinery. In buying machinery for this purpose it is a most unwise thing to attempt to save by cutting off some of the attachments usually sold with a crusher. You may save a few dollars on the first cost of the machine, but you will lose a large sum annually in the expense of operation. An illustration of this was afforded in Nova Scotia, where two machines were operating within three-quarters of a mile of each other, under precisely the same conditions. The one handled the material at half the cost at which it was handled by the other machine."

THE MINISTER OF AGRICULTURE.

Hon. Sidney Fisher dealt with the importance of good roads from an agricultural standpoint. "The price of that which a farmer has to sell is," said the Dominion Minister of Agriculture, "based upon delivery at the point at which it is sold. Every dollar added to the cost of delivery means, therefore, a dollar less in the farmer's pocket. In dairying, which, in a large part of Canada, is the greatest of our industries, the condition of the roads is a matter of special consideration. Good roads are important to this industry now; the importance will be increased if, as I believe, in addition to hauling milk to factories, we are soon to see cheese, after making, hauled to central depots to be cured in cold storage. As it is now, I believe five per cent. could be cut off of the cost of assembling the milk by an improvement of ten per cent. in the condition of the roads, and if the roads were improved by fifty per cent., the relief in transportation would be consequently increased. You can form an idea of how much that would add to the profits of an industry which is profitable even under present conditions.

THE U. S. OFFICE OF ROAD INQUIRIES.

Before the close, the visitors from the United States, Senator Dodge and Col. Moore again addressed the convention.

The Hon. Martin Dodge described fully the work being done by the United States Government's Department on Good Roads. This department, he said, has appointed a large number of scientific experts to examine, in all sections of the country, the road-building materials, and samples are sent to Washington for the purpose of testing them. These tests are made and the reports are published and distributed, especially to those who are interested in the matter. The same work is being done in all the states. If one state were obliged to go to the expense of