Ontario Good Roads Convention.

Railroads, local and transcontinental, steamship lines, and electric radial lines bulk largely in the public eye and in the newspapers, but of equal importance are the public highways, to which every property owner can demand access. The improvement and management of these formed the burden of the addresses and discussions at the Convention of the Ontario Good Roads Association, held in Toronto, March 2nd, 3rd and 4th. Municipal delegates from all parts of the Province formed the bulk of the gathering, but there were, besides, many county engineers, road superintendents, and private individuals interested in the good-roads movement, who had come at their own expense. The "Government Standard for County Roads," "Road Management in Different Counties," "Road Metal," "Benefits of Good Roads," "Steel and Concrete Bridges," "Road Dimensions," "Earth Roads," "Cost of Roads," "Cities and Good Roads," and allied subjects, were discussed by practical men before a practical, hard-headed audience. When a speaker showed that he knew his subject, many and pointed were the questions he had to answer.

The convention appeared rather long-drawn-out, some of the sessions being somewhat tedious, and the large number who were in attendance on the second day, thinned off to a mere scattering on the last afternoon.

The presence of three Iroquois Indian chiefs and a warrior from the different Ontario reserves, was an interesting feature, and their plea for an extension of Government-aided roads through the reserves was favorably received, and a resolution in sympathy with it passed.

In the State of Massachusetts many leading roads have been built, costing about $8,000 per mile, said Harold B. Parker, Chairman of the State Highway Commission. Oil or tar surfacing, to resist auto wear, has proved fairly successful. Automobiles, of which there are 25,000 in that small State, pay an annual tax of 50 cents per horse-power. Receipts from this total up to $325,000, which is turned over to the Highways Commission.

New York State is also spending lavishly on macadam roads, having already spent $50,000,000. As explained by Engineer G. C. Diehl, of Erie County, Buffalo, there are three different classes of roads under construction: State roads—great thoroughfares from city to city—paid for by the State; county roads, and township roads, which are State-aided.

Some officials of the Ontario Motor League had a place on the programme, and others of them were given a hearing by request. These gentlemen seemed anxious to have farmers understand that they wished to be friendly, and that farmers' interest in good roads was identical with their own. They argued that cities and towns should help, and were willing to help in the building of roads. They asked for the support of the Good Roads Association in urging upon the Government the building of Provincial trunk highways, at Government expense. Visiting delegates were all presented with tickets for the Automobile Show, then being held in the city.

BRIDGES: STEEL OR CONCRETE.

The bridge question received a good deal of attention, both in addresses and discussion. Some delegates from northern counties spoke of still using wood in these structures, but the almost unanimous feeling was that wood, while most useful in its day, should now not be mentioned or thought of. In regard to the merits of steel, as compared with concrete bridges, Frank Barker, C. E., County Engineer of York, read a very full and complete paper. His preference was for concrete. When steel bridges first came into use, he said, it was expected that they would be practically indestructible. But the life of many of them was short. Some that had been put up cheaply by bridge companies had not lasted over fifteen years. Fifty years, he contended, was as long as any of them might be expected to be safe. The chief trouble with steel bridges, as was brought out both by Mr. Barker and by others in discussion, and by Jas. A. Bell, St. Thomas, City and County Engineer, in his excellent address on "Concrete Highway Bridges," was that municipalities failed to keep them painted. Rust worked constantly unless this were done, and in time rendered them unsafe. Mr. Bell, whose experience as engineer reaches away back to the times when steel and concrete were unheard-of bridge-building materials, was given an excellent hearing, and answered readily many pertinent questions that were fired at him. The bridge question seemed to have special interest for the delegates. Mr. Bell believed that, for long bridges, a steel overstructure, with concrete foundations, was ideal. In comparing the two materials for bridge purposes, it was to be remembered that a steel bridge was at its strongest the day it was opened for traffic, while a concrete bridge was weakest then, and got stronger with age.

BRIDGE DESIGNS.

Culverts of concrete are universally recognized as the only proper kind. For bridges up to 16 feet in length, a reinforced concrete flat slab is best, in thickness about an inch for every foot in length. From 16 to 40 feet in length, reinforced concrete beams, covered with concrete floor, are most suitable and cheapest. When the length is from 40 to 100 feet, then the solid-concrete arch is the best form. In an arch bridge, special attention must be paid to having abutment foundations good, as the tendency of a weight on an arch is to spread it. The requirements of the future should be kept in mind, also, in laying foundations, as a concrete structure is practically everlasting. The tendency of creek beds is to get lower; very seldom do they fill up. And, as in consequence of the extension of draining, heavier spring floods are to be expected, abundance of room for the greatest possible waterflow should be provided.

STRENGTH REQUIRED.

In the matter of strength, also, the requirements of the future should be reckoned with. At present, some municipalities are unable to make use of a steam roller, on account of their bridges not being able to carry such a weight. All bridges should be strong enough for a 15-ton roller to cross safely.

APPEARANCE.

As concrete lasts for all time, practically, both design and execution of buildings of that material should be such as to be pleasing to the eye.

GOVERNMENT STANDARD FOR COUNTY ROADS.

"The Government Standard for County Roads" was the subject of an address by W. A. McLean, C. E., Provincial Engineer of Highways. There was no absolute standard applicable to all sections. Conditions varied, as, for instance, in Frontenac Co., stone has to be taken out of the roadway, while in western counties scarcely any was to be found. Besides the question of road-making material available, there were other factors, such as the amount of traffic the road had to bear, which were also given consideration.

Before a Provincially-aided county road can be begun, the county must appoint a qualified superintendent to supervise the work. This is wise, as, without competent supervision, neither good nor cheap roads will be built.

General directions are that road must be 24 feet from shoulder to shoulder, with a rise from side to center of one inch to the foot, the central part being covered with crushed stone or good gravel, 8 feet wide, and 8 inches thick. Where subsoil is wet, tile drains are to be inserted, preferably close to the roadway, rather than in center or in ditches, and there must be free surface drainage everywhere.

It is expected, also, on the ground of economy, that proper machinery will be used. A steam roller will save repairs, and the need for very fine crushing of stone. Where stone is plentiful, it is expected that crushers will be used.

Bridges are to be of steel and concrete for long spans, and of concrete for short spans or culverts.

One object in this movement is to establish model stretches of road for local road-builders to copy.

In answer to questions, Mr. McLean said there was no standard for upkeep of such roads; that a span of 50 feet and longer of reinforced concrete was quite practicable, and that the mixture for top of such bridge was 1, 2 and 4, and for sides 1, 3 and 6, of cement, sand, and stone, respectively.

The report of the Executive Committee showed that only sixteen counties had accepted the Government's offer of bearing one-third of the expense of special county roads. These are: Carleton, Halton, Hastings, Fontenac, Lennox and Addington, Lincoln, Lanark, Middlesex, Peel, Perth, Prince Edward, Oxford, Wellington, Waterloo and Simcoe, and the amount received is about $700,000 in all. An agitation to have the Government's proportion increased to one-half, is joined in by twenty county councils.

EARTH ROADS AND SPLIT-LOG DRAG.

In many sections of the country, said W. B. Rittenhouse, of Beamsville, Lincoln County, on account of the lack of gravel, earth roads are the only kind possible. He maintained that by using the split-log drag, such roads, once graded, could be kept in excellent condition, at a cost of $5 to $10 per mile yearly.

DRAINAGE.

Most of the speakers on road construction spoke of drainage as the groundwork of road-building. C. Talbot, Middlesex Co. Engineer, advocated putting in tile-drain system previous to gravelling or metalling roads, as being true economy.

COST OF A METALLED ROAD.

Several estimates of the cost of a road of broken stone were given, the average being about $3,000 per mile. A cord of crushed stone weighs six tons, and cost of applying varies, according to length of haul, etc. On one stretch, the cost, including crushing, hauling, spreading and rolling, was $5.39 per cord. Where material is brought in by rail, cost is much increased.

The list of speakers other than those mentioned included Geo. S. Henry, York Co.; Controller T. L. Church, Toronto; Mayor Geary, Toronto; T. L. Kennedy, Peel Co.; H. G. Bleecker, Belleville; C. J. Foy, Perth; J. L. Taylor, Hamilton; J. M. Young, Wellington Co.; C. R. Wheelock, Peel Co.; A. McG. Rankin, Frontenac Co.; H. J. Bowman, Berlin; Chas. Anderson, Lennox and Addington; Jas. Sheppard, Queenston (views of roads and bridges); and R. H. Jupp, Simcoe County.

Resolutions that Government aid to county roads should be increased from one-third to one-half of the total cost, protesting against Essex and Kent Counties being allowed to divert such aid from county roads to public ditches, and favoring Government beginning a system of main leading roads, were passed.

Officers elected were: President, W. H. Pugsley, Richmond Hill; Vice-Pres., Thos. Kennedy, Cooksville; Sec.-Treas., Col. Farewell, Whitby; Assistant Secretary, W. A. McLean, Provincial Engineer of Highways, Toronto. The Executive consists of officers, and R. H. Jupp, Orillia; Warden Hall, Prescott; K. W. McKay, St. Thomas; and L. A. Hamilton, Lorne Park.

Rod in Pickle for Mrs. Hopkins.

Editor "The Farmer's Advocate":

Just finished reading Mrs. Hopkins' article, in last number of "The Farmer's Advocate," "Why Boys and Girls Leave the Farm," and I do not agree with her at all.

Mrs. Hopkins may be (and undoubtedly is) a woman of education, but in her effort to tell why boys and girls leave the farm, she has come far short. She lays it to rudity of farm life. Does she know anything about farm life? My impression of Mrs. Hopkins is this, that she has spent part of her days on a farm, and possibly married one of those nice city chaps, with a pile of cash, or in some other way has risen above (as it seems to her) her country cousins, and undertakes to tell them something she knows very little about.

There are just as well-mannered and well-dressed people in the country as in the city. Will Mrs. Hopkins deny this? She claims she wrote for helpfulness, not criticism. Where is the helpfulness in solving this great problem? Surely Mrs. Hopkins has not set it forth; and as for criticism, I am sure she will get all that is coming to her. Mrs. Hopkins is an extremist. She sees nothing whatever in the people who live on farms, and everything in people who live in the city. Does she not know there are extremes in both country and city as well?

Did Mrs. Hopkins ever see a farmer's wife climb in a wagon with a basket on each arm? I am sure Mrs. Hopkins is ignorant of the things she is writing about, as will be seen from the statement made, namely: "It is an understood fact in the farmer's family that the farm is for the boy." It may be sometimes, but not always. Mrs. Hopkins says it is always.

THE COUNTRY FOREVER.

Lincoln Co., Ont.

A bill to amend the Motor Vehicles Act has been introduced into the Legislature of Ontario by Valentine Stock, South Perth. It aims to lessen danger to farmers' wives and children in charge of horses, by compelling motorists to stop and assist them past. Under present Act, many motorists, when signalled to stop, simply drive on till horses jump, or do not stop at all. It is intended to bring them to "immediate" stop when signalled to do so. It also aims at bringing offenders to justice promptly. The present Act allows "reasonable" time in which to produce license. The bill would provide that licenses should be carried, have recorded on them previous conviction, if any, and on second offence be taken from them.

A merger of nearly all the canning factories of the Dominion is announced as having been consummated. The new company will be known as the Dominion Canners, Limited. There are fifty-six factories in the concern, with a capital of $10,000,000. It is intended that competition will be limited, and expected that prices of canned goods will be increased.

A department of experimental breeding, with special reference to the laws of heredity, and the improvement of animal life, has just been opened at the College of Agriculture, Madison, Wis., under Dr. Leon J. Cole, of the Yale Scientific School, who originally graduated from the Michigan Agricultural College. He subsequently represented the U. S. Bureau of Animal Industry in breeding work on Rhode Island.

Sixteen young men have been taking the month's course in agriculture at the Collegiate Institute in Collingwood, Ont.