

In discussing the matter of "Road Improvement," few ratepayers, and especially those who are engaged in doing the work in their own particular section, realize the magnitude of the public work upon which they are employed, and few wait to think how important their little section is in the great net-work of highways which traverse the country, and which is of such vital importance to its industrial, its commercial, its agricultural welfare.

The people engaged in the performance of statute labor, as well as the people of the local municipality, believe that road-making is of a purely local character, and that its object and its influence need not extend much beyond the limits of their township. Frequently we hear it said that traffic now-a-days is of such a local character that main roads are out of the question, and that the most local system is all that is required to solve the problem of road construction.

It requires, however, that people should hear the road question in its comprehensive and in its commercial phase fully explained, and the influence of roads upon the country's welfare clearly illustrated, in order to fully appreciate how far-reaching is even the back concession line, and that it is not only a local, a township, a county, a provincial or a national, but an international problem to determine the other end of that concession line.

The reports of this convention will, it is understood, be fully published and distributed, and it is fair to assume that such reports will contain a greater volume of important information on this question than has ever been published in connection with a similar convention. It is to be hoped that some of these reports may reach the offices of at least a number of newspapers, and that they will be carefully gone over, adjusted, and at least a fair summary presented, in order that similar publications may take up the thread of this instruction and present it as far as possible to the people of not only the United States, but Canada and every other country that was there represented.

At the conclusion of the convention the following resolution was adopted :

Resolved, That this convention heartily endorses the proposition for federal aid for the construction of public roads in the United States to the extent of one-half of the cost of same, and that each delegate in this convention pledges himself to use all honorable means to secure the support of our respective delegations in Congress of this principle.

Resolved, That believing as we do that the road question is a paramount one now before the American people, we urge that in the election of all public officers they be required to stand for federal aid for road improvement generally.

Resolved, That this convention unanimously endorses the proposition of county, state, and national aid.

Resolved, That we heartily approve and commend the work of the Office of Public Road Inquiries of the United States Department of Agriculture in collecting and disseminating information and co-operating with communities in object lesson and experimental work. We believe that its practice of road-building has been far-reaching and will prove of immeasurable value to the people. The demand for better methods and greater light is insistent in general throughout the country. While the office has accomplished a prodigious amount with the limited means available, it has not been able to respond to more than an insignificant fraction of the demand. It is a kind of knowledge that all people want, and it is pre-eminently proper that the Government should furnish it.

We, therefore, earnestly demand on behalf of the people that Congress at its next session appropriate not less than one hundred and fifty thousand dollars (\$150,000) for this office in order that it may be able at once to increase its facilities for its vitally important educational work.

Resolved, That we recommend that the Office of Public Road Inquiries should be advanced to a bureau to be known as the Bureau of Public Roads, and that an increase in the appropriation of money applicable should be made commensurate with the demand of this office.

Resolved, That it is the sense of this convention that all convicts and vagrants shall be employed in work upon the public roads and highways, and not in competition with honest labor as at present.

Resolved, That the delegates appointed to this convention be appointed by this convention, a committee to organize in the different states and territories, not already organized, county and state organizations as the primary organizations to this body.

### WIDE TIRES.

Narrow wagon tires are the great destroyers of good roads. The injury done by these increases as the wagon gets older, and the wheel wobbles loosely on the axle. A narrow tire on an old and heavily loaded wagon can do more damage to a road in one trip to market and back than would pay for a new wagon. Wide tires, on the other hand, are a benefit rather than an injury to the road. They have a greater bearing and do not cut into the road. Instead they roll it down, smooth, and compact it. Instead of two inches of road surface supporting the load, wagon and all, by doubling the width of tire, the load is distributed over twice the road surface. In making wagons consideration should be given not merely to the strength of the wagon and its wheels, but also to the strength of the roads to be travelled, and the kind of wagon they have strength to support.

Tests have been made from time to time of the effect of wide tires, not merely on the roads, but also on the pull required to move the loads. Among these tests have been those made by the British Association for the Advancement of Science, in 1902; by the experimental station of Missouri University in 1897, and more recently by the U. S. War Department. The results in all cases have been practically the same.

(1) With regard to the roads, it is found that wide tires leave a road in better condition than before passing over it.

(2) As to tractive effort, the only practical disadvantage of wide tires arises where the road is so soft, that the wheels sink into it, and the mud sticks to the rims and packs between the spokes. On very hard, smooth roads, or roads covered with dust, wide tires require a very slightly increased tractive effort. On all other classes of road the advantage is in favor of the wide tire.

The practical application of the result of tests is that, for traffic on country roads, if wide tires of four inches and upwards are generally used, there would be a decided improvement in every class of road. The tractive power required would be less, and the cost of keeping the roads in repair would be much reduced. If all farm wagons were equipped with wide tires, the muddiest and stickiest of our roads would be very much improved, and many of what are now known as bad roads would be, for the most of the year, in fair condition. While the majority of wagons continue to have narrow tires, the few having wide tires are heavier to draw on very muddy and sticky clay roads; but on the great majority of roads, the average country road, the advantage is in favor of the tire four inches wide and upwards.

Unfortunately, it has been found a difficult matter to enforce the use of wide tires, for several reasons. A wide tire law would necessarily specify certain widths of tire for certain loads, or for certain sizes of wagon axle. But in doing so, it is difficult to adopt a schedule that can be readily followed. A law can scarcely be framed that would be applicable to all sections of the Province. Municipal by-laws operate unsatisfactorily with regard to traffic from adjoining municipalities.

In the state of Michigan municipalities may allow a rebate of statute labor to those using wide-tired wagons. Such a permissive measure, rather than one that is compulsory, has evident advantages. In the meantime, it is to be trusted that public opinion in Ontario may be aroused, and that the use of wide tires will become popular because of their manifest advantage to all concerned.