

use of poor road metal (gravel or stone) is likely to continue until there is someone who, by experience, is able to select the best material available, and is provided with proper implements to screen and crush it when necessary. Nor can statute labor ever provide the means necessary for putting metal on the roads in the right way, first preparing the road by the use of machinery, then properly spreading the metal and rolling it.

Whenever statute labor is employed, it is advisable to employ it properly on the road. The grading machine should be operated by men employed by the council, before statute labor commences, and the work of ditching, grading, building of the culverts, the preparation of gravel or stone, should all be performed under the council by contract.

#### Cold Storage.

In pursuance of the acts recently passed by the Ontario legislature, whereby aid will be granted municipalities, co-operative companies, cheese and butter manufacturing companies in the erection of cold storage buildings, a bulletin has been issued by the Department of Agriculture containing plans and specifications for a combined ice house and refrigerator chamber, the cost of which is estimated at \$210. The capacity of this building is small, about half a carload, but the Ontario Public Works Department will, if desired, furnish plans for larger buildings.

A cold store would be of very great advantage to every municipality, whether urban or rural, and it would be well for councils to look carefully into the subject. Merchant, farmer and consumer will be benefited by having in every village and town, a refrigerator where perishable produce, particularly in hot summer weather, may be saved from decay during a temporarily glutted market. Poultry, butter, eggs, and fruit are among the farm products which can be most profitably stored. In regard to the advantages of cold storage and the plans adopted, the bulletin referred to says:

"The preservation of the perishable products of the farm, such as fruit, butter, cheese, meat, eggs, etc., is fraught with great blessing alike to the producer and consumer. In any year when an unusually large quantity is produced, if some portion cannot be carried over until the demand recovers, much of it must be wasted, and all of it will be reduced in value. By means of a cold storage system wherein the best existing methods for delaying decay in perishable products are employed, the goods can be held by the producer until the market demands them. The consumer thus secures for his use these delicate luxuries for a much longer period.

"That system of cold storage which will most commend itself will be: first, reliable; second, durable; third, simple in construction; fourth, easy to maintain; fifth, within the reach of persons of limited means.

"The plans and specifications herein presented for cold storage buildings will, it is believed, comply with these conditions, and if followed closely will give the maximum results in efficient cold storage.

The system is known as the Hanrahan System. It is used largely in the United States for long distance transportation and otherwise, and has given excellent satisfaction. It is within the reach of those possessing limited means, and its use will add largely to the profit as well as the pleasure of farm life.

"The principles involved are thorough and continuous circulation of air, the evaporation of all moisture and its condensation on the ice in the ice chamber. The odors and gases are also absorbed by the melting surface of the ice, with which the air containing them is brought into direct contact. The products are thus maintained in a dry, even temperature, best calculated to resist decay and leave them in the best possible condition when exposed for sale in a normal atmosphere."

#### The International Roads Congress.

The Good Roads Congress held in Port Huron last month, was one of the most satisfactory of these gatherings which has yet been held. Convened at a point on the boundary line between Canada and the United States, the proceedings partook largely of an international character, and as such, were of a very striking nature. Among the speakers were Hon. Martin Dodge, Director of the Office of Road Inquiry, a bureau connected with the Department of Agriculture at Washington, Gen. E. C. Harrison, engineering expert of the same bureau, ex-congressman Hutchins, of Chicago, ex-congressman Linton of Michigan, Prof Smith of the Michigan Agricultural College, Andrew Pattullo, M. P. P., Woodstock, A. W. Campbell, Provincial Road Commissioner of Ontario and others. Most energetic in inaugurating the convention, and in carrying it to a successful issue, was Chief Consul, H. S. Earle, Detroit, Michigan.

A feature of the convention was the construction of a mile of macadam roadway, for which the city of Port Huron had appropriated a sufficient amount of money. This work was from time to time visited by the convention, and addresses were delivered on the ground. The road machinery exhibited was also worthy of the considerable attention it received. One machine was of more than ordinary interest, being a traction engine, which, by changing the wheels, could be converted into a road roller. This is an implement which is destined to be of great service to rural municipalities for operating road machinery.

A committee consisting of Hon. Martin Dodge, Director Office Road Inquiry, Andrew Pattullo, President of Good Roads Association and Col. Carl Moote, of St. Louis, Mo., was named for

the purpose of conferring with the executive committee of the Inter-State Good Roads Association with a view to effecting a permanent national or international organization in the interests of better roads.

Resolutions adopted at the International Good Roads Congress were:

"Whereas the United States government in the earlier days of the republic espoused the cause of road improvement by building and maintaining national roads, and whereas aid has been given to the Western Railroads both by land grants and bonds, and whereas it is a well and long established practice of the general government to aid in transportation over water by deepening the rivers and harbours and the water communication between the great lakes, therefore be it resolved: that the same liberal policy should be extended to the over-land transportation upon the common highways of the people and that every reasonable aid should be extended by the United States government and State governments to reduce the cost of transportation upon the highway.

"Resolved, that the good work heretofore accomplished by the Office of Public Road Inquiries of the United States Department of Agriculture should be extended as rapidly as possible, and that every state in the union should be reached not only by the literature published by that office, but by public addresses and object lesson roads produced by the most skillful experts in the most economic and scientific manner.

"Resolved, that the state and local association for the encouragement of road improvement should be formed in all parts of the country and that members of congress should be requested and urged to further increase the annual appropriation to be devoted to this purpose."

2. "Whereas, one of the great questions of the present day is, how to improve our public highways, and in its discussion we are confronted by another, to wit, what is the best way of utilizing our prison labor so as not to come violently in contact and in competition with honest and free labor in any of the several branches of industrial pursuits, now therefore be it:

"Resolved, that we the First International Good Roads Congress do wish to declare that we are in favor of utilizing to the utmost possible extent prison and convict labor in preparing road material and placing same on the highways, so far as it can be done without interfering with good government and honest labor."

3. "Resolved, that we recognize the deep interest manifested by the Southern Railway Co. and other railway interests in sending representatives to this convention, and we most earnestly indorse the importance of their suggestions in having the leading highways of the state constructed and improved so that they will run at right angles to railways, and thus facilitate most cheaply the means of communication between the railways and the common roads of the country.