they need it are neglected, grow worse and worse, and all the evils of bad roads follow.

What bad roads are doing for this country is only one side of the evil. The other side is what they are not doing. The loss does not arise to much from the money and labor wasted every year as it does from the absence of the benefits which good roads would bring. Our loss must be measured not so much by the money and labor we are throwing away on bad roads, as by the opportunities which would come to us if the roads were good.

One of the greatest obstacles in the way of road improvement is the narrow view taken of the question by so many citizens of this country. They have been accustomed to think of roads merely as incidental to statute labor; and statute labor they consider as a means whereby each pathmaster can get a little work done in front of his own farm which will be of direct personal advantage.

They do not see nor appreciate the benefits which would accrue to the township, county and province. They overlook the public good. But public good is merely individual benefit conferred on every citizen. Money and labor spent on the roads of the township will enhance the value of every farm by increasing the demand for farm land; it will increase the profits of the farm by reducing the expenses of the farm. The dairying industry would be immensely benefitted by good roads, fruit growing would become more remunerative; sale would be obtained for products which now are not grown because the market cannot be reached easily and ouickly.

Regarding country roads, he continues:

It would seem as though in everything the present methods in regard to roads in Ontario are contrary to good judgment. Gravel or broken stone is dumped loosely, without even spreading, on a badly gradled, badly drained sub-soil. In the use of these roads the same recklessness is glaringly apparent. When wide tires have universally replaced the nar-

row tires which are now found on farm wagons, a great part of the road question will be solved. Narrow tires of two and one-half inches in width have only one-half of the bearing on the road which would be provided by tires of proper width. By referring to the supporting power of soils discussed in the paragraph on "Foundations," the effect of this is more apparent. By the use of a six inch tire, the roadway will support, without yielding, twice the load which it could support with a three inch tire.

Narrow tires cannot be too strongly condemned. They cut and grind the road, plow and upheave it. Wide tires, on the contrary, are a benefit rather than an injury to the road, inasmuch as they act as rollers to preserve a smooth, hard surface. In some localities wide tires are objected to under the argument that they increase the draft required to move the load. This may occur under certain occasional conditions of very wet and soft roads. But when wide tires are universally used this objection will disappear, as the increased draft is due to the ruts and mud caused by narrow tires.

DIMENSIONS OF ROADS.

For the average country road, a graded roadway twenty-four feet in width between the inside edges of the open drains, will be ample to accommodate travel. For the average road, if the central eight feet is metalled with gravel or broken stone, it will be sufficient. (See Fig. 1392 "Plan of Country Road." The depth and with of the open drains will have to be governed by circumstances. Sufficient capacity must be provided to carry away all surface water. The depth must be dependent also on the fall obtainable. With tile under drains, deep open ditches are not needed to drain the road foundation. The use of tile does away with the deep and dangerous open ditches which may otherwise be necessary. The crown of the road should be such as to give a fall of one inch to the foot from the centre to the edge of the ditch.

Gormley's Seedling Cherry.—On page 317, volume 20, we referred to this cherry as being of great promise. To-day, July 12th, we have received another sample lot and consider them even superior to those received a year ago. Being of Canadian origin, no doubt the tree is very hardy, and would succeed over a wide extent of country. The color is bright red like the Montmorency, the form about that of the English Morello, and the flesh like that of a Bigarreau, not very juicy; it parts

easily from pit, without dropping its juice, flesh yellowish, a wonderful keeper, and therefore a good variety for distant shipments. Mr. Gormley writes:

"This is a seedling cherry tree about 25 years old. I remember the tree coming up in a fence corner. It has never had any care, but has grown well under neglect. I want to know if it is a recognized variety, for if it is new it is very valuable, as the quality cannot be excelled and it bears every year."