

on it with the shoe of the other foot making a wound which is ordinarily called a "calk" because of its having been made by the calking of the shoe. Care should always be taken to see that none of the hairs have been forced down inside the top of the hoof, or if they have, they should be carefully removed as many a simple wound of this kind has developed into a serious condition because those hairs set up inflammation inside the wall of the hoof. Intense lameness and great suffering invariably result from such wounds and the animal is rendered unfit for work for some considerable time with, in many cases, a veterinary bill to pay, all because a precaution that could not have taken ten minutes to perform was neglected by the owner.

PUNCTURED FOOT

In the not uncommon case of the sole of the hoof being punctured by a nail, after the nail has been removed the opening made by it should be rimmed out to a considerable size in order to allow any pus which forms to escape. If this is not done in many cases pus will form, and not being allowed to escape, inflammation is soon set up and a bad case of under-sole is the result in which possibly the whole sole will have to be removed before recovery can take place. In such a case the horse would have to be off work for weeks or possibly months and all because of a little want of precaution on the part of the attendant.

Methods of Silo Construction

T. H. Binnie, B.S.A., Carleton Co., Ont.

Do not on any consideration build a square or oblong silo. The walls of such a silo are not strong enough to stand the pressure caused by the great weight of the silage; and the amount of silage lost in the corners will amount, in a few years, to a considerable value. The best shape is circular. A silo should be more than twice as high as it is wide. Do not build a silo too large in diameter as the amount of silage spoilt from day to day will more than pay the interest on the cost of an extra smaller one. The main qualities of a silo are that the walls shall be strong enough to withstand the pressure and it shall be air tight. To get this, the first step is to build a good, solid foundation, commenced below the frost line.

STAVE SILOS.

Perhaps the simplest and easiest style of silo to be built is the stave silo. It should be made from two inch narrow plank properly bevelled, and held together by strong iron bands. The staves, after bevelling so that when fitted together they will form a circle of the desired size, are placed on end, on a solid foundation and properly fitted. These are strengthened and held in place by strong iron hoops which are so made that they may be tightened or loosened at will. Doors should be built at intervals from the top to the bottom so that the silage may easily be got out. It is not necessary to put a roof on this silo, but it is much to be preferred. This style of the silo should be kept well painted, both inside and out. If properly built and taken care of a stave silo is durable, rigid and airtight.

CONCRETE SILOS.

The site built of stone or cement has a bright future before it. The method of construction is much the same as the ordinary wall of stone or cement, but the walls should be strengthened by iron bands built right into the wall. Construct the walls from one to two feet thick at the base, tapering to about half that thickness at the top, depending upon the size of the silo. The iron bands should be complete circles and should be closer together at the base than at the top of the silo because the greatest pressure is at the bottom. Line the inside of the walls with a coat of rich cement so that the action of the acids

of the silage will not eat into the wall and injure it. This coating need not be thick as it is only to keep the acid away from the walls that it is applied. With doors properly placed, with a good roof and proper construction, a silo of this material should last forever.

LOCATION.

Whatever material is used in the construction we should place the silo in such a position that we will have as little handling of the silage as possible for it is very heavy stuff to cart about. In choosing the location, we have two points to consider. The silo must be so located that there will be very little difficulty in filling it and it should also be handy for feeding. No one cares to carry silage the length of the barn before he gets it to the cows. We should also choose a place that will be dry and not water-soaked for if the water gets into the silage it will soon spoil it. If your silo is built of wood it will soon decay if the boards become water-soaked. After the site has been chosen, build your silo very carefully so that it will be airtight and strong and you will be handsomely repaid for your trouble.

Summer Cultivation of Corn

E. E. Wismer, Essex Co., Ont.

After the corn is up, we make a practice of dragging it with a light harrow. When it is about three inches high, we start cultivating it with a Cockshutt two-horse cultivator. The first cultivation is a light one. Then in about a week, we cultivate in the opposite direction (our corn being planted in hills) and cultivate deeply. In succeeding cultivations, we set the cultivator shallower and shallower, so as not to injure the rapidly forming roots. We cultivate by means of the two-horse cultivator until it is not possible to use it longer without injuring the corn.

When the corn is shooting out in ears, we make use of the one-horse cultivator setting it very lightly to stir up the soil in order that it may conserve all the moisture possible. Hag weed is the worst weed that we have to contend with. It takes a lot of cultivation to keep it in check in our corn fields.

Road Making in Ontario

A. W. Campbell, Deputy Minister of Public Works, Toronto.

The present system of pathmasters and statute labor so general in Ontario is not a thing of which our people should be proud. In order that the work of road construction may be carried on sys-



An Oxford County, Ont., Road near Ingersoll

tematically and at a reasonable cost, it is essential that there be an efficient plan of management. The great defect of statute labor, with its large number of pathmasters rotating in office from year to year, is that it is utterly without system. There is no responsible head to direct the work, no one who can be held accountable for mismanagement. It is impossible to improve and construct all the roads of a municipality in one year; it is a work extending over many years,

and as such requires a plan and supervision which will reach into the future. This can only be accomplished by having a permanent head over this work; a road superintendent whose tenure of office will be similar to that of a municipal clerk or treasurer.

ABOLISH STATUTE LABOR.

It is desirable that statute labor be dispensed with, and that all the energy available be placed on a cash basis. By this means the road superintendent can demand from all employed by him, a reasonable day's work. He can perform the work where it is most required, taking up the worst pieces first, or the most heavily travelled sections, bringing them to a permanent condition, and steadily extending the work year by year. The cost of road construction is largely dependent on the cost of labor, and the amount of work performed, and it is not an uncommon thing to see an efficient road superintendent take hold of a road system and by careful management reduce the cost by one-half. This system has been adopted already by a number of municipal Councils, and they would not think of reverting to statute labor again.

SPENDING \$2,000,000 ANNUALLY.

The amount expended annually in Ontario upon country roads, in money and statute labor, is more than \$2,000,000. The expenditure is made too, with little or no attempt at a broad supervision, with the result that a large proportion is actually wasted and much of the remainder turned to poor account.

A careful examination of the methods pursued will disclose that, owing to faulty administration, careless and inexperienced supervision, and the improper influences which are brought to bear upon those in charge, our system of roadmaking is incompetent, utterly unjust and extravagant, and is almost solely responsible for their poor condition. No civilized country ever reaches its highest state of development without a good system of common roads. Bad roads are a source of a heavy economic waste. The impassable condition of country roads at certain seasons of the year tends to disorganize commerce and to throw the railway service into confusion.

CITIES MUST HELP.

An obligation rests upon the urban portions of the Province to assist in securing good country roads. All must bear a share of the cost.

In maintaining good streets and allowing the farmers to use them free of cost, the city has not discharged its obligation. The hauling of produce to the city and the hauling of merchandise back to the country in exchange demand good roads for economy's sake.

FIFTEEN COUNTIES UNDER ACT.

County road systems have in the present time been established in 15 counties, comprising over 40 per cent in area of the Province, to which the Highway Improvement Act is applicable. The counties operating under this Act have assumed an average of about 12 per cent. of the road mileage in each county, the total now amounting to 2,800 miles of road.

County Councils can do, and are doing, the work more cheaply than Township Councils. On the account the Act applies only to a "county" road system.

County systems of highways, where they have been established for two and three years, and the results are becoming apparent, are giving splendid satisfaction. The cost is found to be much less than extreme opponents are urging. In the great majority of cases roads are being built at an outlay not exceeding \$1,500 a mile.

The purpose of the Act is to have the county assume the entire maintenance of the more heavily travelled roads, while the townships will thus be able to give more attention to the rest.

PROVINCIAL AID.

An increased expenditure will no doubt be made, but this will be fully covered by the Gov-