

all roots fed to be reckoned at 10c. per bush. He must keep an accurate account of all costs except labor, and make a monthly report to "The Farmer's Advocate," and if they do not cost more than \$5.49 per hundred, the price we have received for the last three years, I will pay the cost of the experiment. I am sure a test of this kind would be of interest to the farmers. Why I mention this is because he says if farmers had warm pens they could have their sows farrow earlier. There are thousands of modern hogpens in the County of South Oxford. I contend that hogs cannot be successfully grown from young sows farrowing in the winter time, but I am willing to have the experiment tried under the most favorable circumstances at the Agricultural College. One word more. He says there are three phases of the question—raw material, manufacture and sale. Now, sir, I would like him to understand, once and for all, that the Canadian farmer intends to look after the raw material independent of any help from the Americans. S. A. FREEMAN, Oxford Co., Ont.

## THE FARM.

### Problems in Roadmaking.

By A. W. Campbell, Deputy Minister of Public Works for Ontario.

The work of road improvement for the coming season should already be under consideration by the various municipal councillors. Wherever a progressive system has been established, plans for each spring and summer should be considered early in the year, in order that the work may be carried out methodically and at the most favorable season.

Statute labor, while retained in a great many townships of the Province of Ontario, has been wholly commuted or abolished in a large number, now approaching one hundred and fifty. Where statute labor is commuted, it is the usual custom to collect a rate of fifty or seventy-five cents a day, although in some cases the rate is as much as one dollar. In view of the increasing price of labor, and the comparative prosperity of the country, a rate of seventy-five cents a day is desirable. Where the statute labor list is wholly abolished there is substituted for statute labor an increased proportion from the general funds of the township for road purposes, and this is usually regarded as the more equitable course.

Having reduced the work of road improvement to a cash basis, either by commuting of statute labor or increasing the annual appropriation from the general funds, the expenditure under the above systems is made through a road commissioner for the township, who is subject to the direction of the council. In some cases townships are divided into two, three, four or more road divisions, and a commissioner is appointed for each. In other cases, while only one or two road commissioners may be in charge of the work, the township is divided into several road divisions for the purpose of returning the expenditure to the various sections which have contributed it.

In establishing an up-to-date system of this kind, many objections have to be met, and much prejudice has to be overcome. One of the first necessities in any community where it is proposed to establish a proper system of roadmaking, is that there be a man or several men, public-spirited in character and of broad views, who will devote their services to the carrying out of such a scheme; and to this end it is a first necessity that public interest be aroused, and as much sympathy as possible created for the movement.

There has been a fear on one hand that the abolition of statute labor would result in largely-increased taxation. Practical experience in every case has refuted this objection, for the new system has resulted in so much benefit to the roads, and in so much economy in the general scheme of carrying out road improvement, that the increased cash payment has not been felt. No townships which have given the new system a fair and honest trial have gone back to the old methods. It must be emphasized that it is not sufficient to merely commute or abolish statute labor, but a competent scheme must be provided in its place, and this must be energetically and faithfully carried out.

Among other notable steps, the Provincial Government has enacted a measure aiding the construction of county road systems to the extent of one-third of the cost, and, as a first appropriation, has provided the sum of one million dollars, to be drawn upon as rapidly as the work progresses. It is surprising how fast this legislation is being taken advantage of, some of the counties in the last three years having expended as much as a quarter of a million dollars; and the majority of counties in Ontario have framed and are now completing county-road plans. In view of the persistent opposition to this movement at its inception, it is exceedingly encouraging to know that such a change of sentiment and expression exists among the people generally, and in this respect they have awakened in re-

gard to matters pertaining to road improvement generally.

The improvement of main roads under county systems is providing for the smaller municipalities models upon which to base both their work and system of management. As a result, even the townships are building roads in long stretches instead of, as heretofore, endeavoring to make a general improvement by a series of patches, continued from year to year. All municipalities are buying modern road machinery, including grading machines, stone-crushers and road rollers. Townships alone have invested in these implements fully \$100,000, with which to carry on their work more rapidly and more perfectly.

First construction of roads is important. Proper repair and maintenance of roads must not be overlooked. It is useless to spend considerable sums on road construction if this outlay is to be lost in a few years through neglect. Roads, when once well built, should be kept in a good condition for all time, and the first expenditure thereby preserved. Practically all roads require some treatment every year, and in some cases attention should be given several times in one season. The only rule is that repairs should be made as fast as the signs of wear appear. Ruts and depressions must be filled up, the center of the road kept crowned and the wheel tracks full. The sides of the road must be cut down and sloped; drains cleaned out and outlets opened.

Statute labor methods are not adapted to this work, and only by a comprehensive system in which work can be obtained at any and all seasons of the year, can roads be properly and economically maintained.

Rural England owes much of its beauty, not only to good roads, but also to the well-kept roadsides, the magnificent trees and beautiful hedges. It is a power that creates a love of the country and an unflinching patriotism. Grade and level the roadside as well as the road. Establish a good sod. Keep down the weeds. Let the fences be neat and tasteful. Plant groups of trees and shrubbery. Utilize any springs available near the road to make drinking places for horses and cattle. In doing all this, preserve nature at her best, making the most of natural advantages. The roadsides cannot, need not, be converted into lawns, but they need not be the unsightly emblems of chaos that we so frequently find them. In building our roads, the original beauty of nature is destroyed, and we owe it to ourselves to make such atonement as we can by restoring a certain amount of order and ornament.

### Notes from Ireland.

#### A COUNTRY OF SMALL FARMS.

Perhaps the best idea that can roughly be given of the character of the farming industry in any country is that afforded by a statement as to the sizes of the holdings into which the land is broken up. When considered in this way, Ireland, taken in its entirety, must be regarded as a country of small farms. To readers in Canada—where we often read of tracts of 160 acres being offered to settlers to start with—it may appear rather ludicrous to state that in the little green Isle of Erin, out of a total of about 600,000, only about 165,000 holdings exceed 50 acres, the big remainder of 435,000 being under that size! There are in Ireland no less than 45,000 farms under one acre in extent, and only 1,500 exceed 500 acres. The size of farm most commonly met with in the country is that ranging in area from 5 to 30 acres, holdings of this extent numbering, in all, 288,000, or nearly one-half the total in all Ireland. Statistics, as a rule, do not constitute the most attractive reading for ordinary individuals, but the figures which I have given above are of instructive interest, as conveying a very good idea of the sizes of the farms from which Irish agricultural produce is turned out. The figures also suggest, among other things, why it is that the adoption of co-operative principles on approved lines are so essential to the development of the agricultural industry of the country.

#### AN OPPORTUNITY NOT AVAILED OF.

Irish farmers, although shrewd enough in some things, are not always as wise as they might be. For instance, they have never gone in for winter dairying, except to a restricted extent, and there can be no doubt that their lack of enterprise in this particular direction has been the means of depriving them of a considerable monetary return that might be theirs each year. This subject is suggested to me by recent reports from Glasgow, indicating that in the markets there quite a serious scarcity has occurred in the supply of butter, and that dealers were perplexed as to where they could get their requirements met. The explanation appeared to be that, owing to the rather exciting time which the subjects of the Czar have been indulging in lately, the Russian export trade was considerably interfered with—indeed, practically demoralized—and that this, combined

with the fact that Canadian arrivals were also limited, and Irish creameries were, for the most part, following the winter habit of the polar bear, and taking things quietly, accounted for the paucity of butter for the folks in Scotland's commercial capital. The wide-awake and progressive Dane obtained the reward of his industry by experiencing a substantial rise for his produce. The situation in the trade aroused not a little attention in this country, and much prominence had been given in the press to the subject, the papers urging on farmers the great opening that exists for Ireland in the British markets during winter time. Viewed from a practical standpoint, however, my opinion is that winter dairying on a large scale is an impracticability so long as tillage is restrictedly carried on. Until farmers see their way to raise sufficient roots to keep up the milk flow of their cows, there do not exist very hopeful prospects of winter dairying becoming a recognized branch of Irish agriculture. It is certainly, however, one of the substantial prospective benefits that should urge on the farming community the claims of the more extended use of the plow.

#### LOCAL PLOWING MATCHES.

Talking of plows leads me to touch on another very seasonable topic. On a former occasion I made reference to the fact that local shows in Ireland were becoming more and more numerous each year, and that the development and advance in importance of these institutions were being accompanied by a revival of interest in modern breeding methods and the trend of live-stock improvement. For obvious reasons, it is principally during the summer that these events are held, and up to a few years ago it was the custom for the promoting body to consider its work done for the year when the show was held, and to relax its efforts until the next fixture claimed attention. Of late, however, this has been undergoing a change, and in many instances throughout the country we now find that during the winter months plowing matches are being organized, with every indication of their increasing in number and benefit. In keeping with their desire to foster the extension of tillage in every conceivable way, the Department of Agriculture have exhibited great interest in the organization of these matches, and have encouraged them in every way. Attention has been drawn to them by the great advisability of holding such fixtures as early in the plowing season as possible. Behind this suggestion there is a wealth of vitally important advice to the Irish farmer, as its adoption would strongly emphasize the great wisdom of the treatment of land in autumn, which has very many advantages to commend it. But with this digression, to return to the subject of plowing matches, there is no doubt that the spirit of friendly rivalry prompted by the proceedings has the excellent effect of bringing into play all the skill and knowledge of the competing operators, and stirring them up to an effort to do their best, not only on the "field of battle," but also to justify their claims as exhibition plowmen when they return to their work at home. It has been suggested—and with a good show of reason, too—that these matches should be followed by a lecture by some expert, or a conference among the competitors and local farmers on the general subject of plowing—how it is best done, what objects should be aimed at by the plowman, the effect of the operation on the land, etc., etc. As yet this proposition has not been adopted, but it may be classed among the things that are being hoped for in the near future.

"EMERALD ISLE."

Dublin, Ireland, Jan. 5th, 1906.

### Taxation of Forest Land.

To the Editor "The Farmer's Advocate":

At first glance, there seems to be no substantial reason why the land on which a forest stands should not be taxed. I can see a very good reason why the forest itself might be exempted, and for the very same reason fruit trees ought to be exempted, and that is because farm stock is not taxed. Fruit trees and forest trees are both productive after they arrive at maturity, but it takes so much expense to bring them to maturity, and, during that period, they are not only non-productive, but are eating up capital in the labor involved in taking care of them, that they ought to be on a par with live stock. Live stock of all kinds is productive in one way or another, just as fruit trees or forest trees would be, and so it would seem to me there ought not to be any difference in the taxation of them, but the land on which the forest stands, I should say ought to be assessed at the same value as land alongside of a similar character, growing field crops. A forest ought to be as profitable as ordinary farm crops, if well cared for and preserved, properly renewed, either naturally or artificially, with the most valuable kinds of trees. Lands for such purposes might well be cheap lands—hillsides too steep for the most profitable cultivation, rocky lands. All such in this country would undoubtedly pay better in forest than anything else.

Wentworth Co., Ont.

E. D. SMITH.