

I know that you do things on a big scale across the Atlantic, I would like to learn if you have a show that can beat this.

EMERALD ISLE.

Good Breeding.

The foundation of good breeding with plants and animals is judgment. Better breeding of animals and larger yields per acre of grain and grass is demanding a better breed of farmers. New systems and much thought are required to make farming pay on high-priced land. The successful breeder will never think he knows it all, but will be ready to learn from every reliable source. If he is a beginner in the breeding of stock he will start on a small scale and grow in the business. As the stock improves through better breeding, and the farm crops receive better attention, it will be but a short time before the effect of good judgment will be felt.

Good breeding of animals means clear thinking, and lots of it. It is that kind of work on our farms that is needed. The time to start is right now. Find out in which department of live stock on the farm you are the most familiar and improve it, then carry the work on with the other stock and there will be no doubt of ultimate success.

There is another advantage in breeding good stock on the farm, which appeals, however, to some more than others, and that is the personal satisfaction it gives the farmer. It is a pleasure to count the farm animals as being among the best in the community. Children raised under such environments grow up with a better view of farm life. They will take a greater interest in the things about the farm.—[Successful Farming.

THE FARM.

Cause and Cure of Bad Roads.

Editor "The Farmer's Advocate":

It was with a feeling of great pleasure that I read your editorial on "How not to make roads, and as for your illustrations, they were simply grand, and I hope every farmer and municipal officer that has eyes to see may see them. "To start the ball rolling," I am pleased to answer your three questions.

1st. Similar road conditions to those your camera so faithfully portrayed may be observed in Peel County.

2nd. The frost is partly responsible for the bad roads; but the greater part of the responsibility lies with the farmers themselves, because it is by them that most of the work is not done, and work is done that ought not to be done. Then, too, if the councillors and officers do not do their duty to the roads the farmers have it in their power to give them a free pass at the next election to stay at home.

3rd. (a) The ratepayers could improve the roads by mixing a little brains, interest and enthusiasm with their work; by meeting in Farmers' Institute clubs and discussing the question of good roads, making plans of the work to be done, etc. (b) Municipal councils can improve the roads by the manufacturing of cement tiles for culverts, drains, etc.; by getting the proper road machinery, and being sure to put it in the hands of competent workmen. (c) Provincial Governments could aid very materially in the purchasing of road machinery; by the making of short stretches of permanent road in the different townships as object lessons; and, I might say, shame lessons, because a piece of real good road in the middle of one of those bad stretches would surely shame the people that they would try to improve the latter.

I would like to hear, through the columns of your valuable paper, from some of the presidents or secretaries of farmers' clubs, as to how often they hold their meetings, what they have found to be the best means to get farmers interested so as to attend and take part, and of anything that has been done by the club to better the condition of the farmer.

Peel Co., Ont.

E. E. W.

Endorses the Wind-power Mill.

Editor "The Farmer's Advocate":

I notice in your issue of May 3rd an item headed, "What is the Farmers' Best Power," wherein the writer, who signs himself Farmer, strongly condemns windmills for any other use than for pumping water. He says they are very expensive to keep up, and that people owning them take over 50 per cent. of their grain to the mill to be ground, etc. Now, I have erected on my barn a 14-ft. windmill, and am pleased to say I find it a very satisfactory and cheap power. I have used it since December, 1903, and it has not cost me anything for repairs as yet, and it pumps water for over 40 head of horses and cattle, cuts chaff, grinds nearly all the grain I grow on a 200-acre farm, and cuts the roots—as roots will keep nicely cut two days ahead and if you are doing chores around the barn there is scarcely a day there is not wind enough to cut roots some time in the day. It is true some plates will not last very long, owing to being cast untrue, but I have only happened on one pair of those. I always run my plates close enough together to catch all the small seeds in any kind of grain, and I grind peas or barley into a flour, which I can do with a good wind. A pair of plates lasts me from 10 to 12 months, barring accidents with nails. This is my experience, and I know others who will say the same.

A HOPE TOWNSHIP SUBSCRIBER.

A Test Auger.

We are indebted to Wallace's Farmer for the following description of how to make a simple, inexpensive tool, called a test auger, for boring into the ground to determine the character of the subsoil:

"Take a common inch auger, cut the shank in two and have threads cut on each piece. Then add sections to it, using half-inch gas pipe and connections, which any blacksmith can make at a very small expense. These sections of gas pipe should be about two feet long for convenience. Then by adding section after section he can go down to any depth that he wishes. An inch auger is large enough, as in very tough clay soils a larger auger will be difficult to pull out. Our first test auger was a two-inch auger. While it did very well in light soils, it was not satisfactory in heavier ones. A test auger is simply a common auger extended.

"An arrangement of this kind will not cost more than a dollar or two, and its use will give the farmer a very clear and definite idea of what is under the surface of any particular part of his farm.

"Quite a number of our readers are asking us whether it is possible to dig a well and drain small areas into it, where no outlet is available. An auger of this kind will enable them to settle this point. If on boring down they find within any reasonable distance that there is a bed of gravel or sand, it is possible that a scheme of this kind will work. They can also ascertain the depth at which water may be found, and save the trouble and expense of digging a well as an experiment. These are some of the advantages that result from providing yourself with an auger and finding out what you have in the way of soil."

or point, and that road to the other place or point, and thereby saving time and trouble to the travelling public.

DAN. R. CHISHOLM.

Antigonishe Co., N. S.

How to Improve the Roads.

Editor "The Farmer's Advocate":

That there will have to be a radical change from the present method of making and mending country roads is obvious. The probability is that there will in the near future be a large amount of money spent on our concessions and side roads. Surely that money ought to be spent in the most beneficial and profitable way. Our old method of statute labor was not the best in the world; still, with all its drawbacks, it is preferable to the present. Although I voted for the present commutation, if I had to vote again I would vote for the old way, hoping some better way than either may come about.

This letter is not to have reference to governing of the work, but to show how the roads should be made to be the most beneficial, at the least expense. The first work to be done is draining, which is the foundation of good roadmaking, as it is the foundation of good farming. When I say draining, I do not mean open ditches at each side of the road, but a tile drain, tiles to be not less than three inches in diameter, put in to the depth of two feet and a half right along the center of the road, and run out at the culverts. The next work after draining is to grade the road from each side, not making the road high, with deep ditch on each side, as is usually done, because those high-graded roads are the worst kind that can be made, as I will endeavor to explain. Suppose there is no tile

drain, do your side ditches take away the bottom water from the road, which it is very necessary should be done? I would say no. They may take away the surface water, and that is all they will take. The side ditches are dangerous, both in summer and winter, when teams have to pass each other. Roads that are rounded in the middle, without ditches, give people the privilege of the whole width without being dangerous. In winter, when the roads are full of snow, the ditches are worse than ever, as it is dangerous to take one side or the other because of the ditches. There is something worse about the high-graded road that very few have thought



King Christian of Denmark (86316).

Young Shorthorn bull sold for \$4,720 at the dispersion of the herd of the late Mr. Philo L. Mills, Nottingham, England, May 3rd, 1906.

Flax Fiber for Twine.

There is a good prospect that flax fiber is to take the place of sisal and manila in the manufacturing of binding twine. One twine company is now negotiating with farmers throughout the flax-growing district, with a view of buying this year's flax crop in the bundle. They have spent some years experimenting with flax as a material for binding twine, and claim to have perfected a process which is now in operation that gives results which are entirely satisfactory. They also claim they can produce a binding twine that is in every way equal to sisal or standard twine, and at a much lower price. As running the straw through the threshing machine destroys it for making first-class twine, they are contracting to buy it in the bundle. Flax for this purpose should not be less than twelve inches in length from the butts to the lowest branches. It should be reasonably free from weeds, and should be cut with a self-binder as close to the ground as possible, thereby giving it the greatest length of fiber. The instructions to the farmers who propose to grow flax for fiber are to carefully shock, and leave it in the field until it is well cured. When sufficiently dry for baling or for stacking, it will be delivered in bundles at the nearest railroad station, where it will be received and paid for according to its quality. The twine manufacturers will buy the entire crop. They can only use the straw when it has been kept straight.—[The Farmer, St. Paul, Minn.

Finger-boards at the Crossroads.

Editor "The Farmer's Advocate":

I notice with pleasure your very practical suggestion in the matter of farmers, and others, having their names written on the road gate leading to their houses, and trust it will be adopted and become general. I beg to make another suggestion, and one which, I think, should be taken up by our municipal boards, viz.: In Nova Scotia and every Province of the Dominion the country is intersected by roads, leading almost in every direction. Would it not be useful to have a signboard showing that this road leads to this place

of. Imagine a high-graded road frozen from the center down the grade to and below the bottom of the ditch, probably two feet. Where is the bottom water that is cased into the middle of the road to escape? Nowhere but to the surface, in the middle of the road, where the frost first comes out of the ground in the spring, to make bog-holes for our expensive gravel to be buried in. Would not a tile drain be a good investment there?

Someone may say, are we to dig up the middle of the road where it is graded and gravelled? I will say yes, and it will be cheaper than putting gravel in a mud hole year after year, and still the roads are bad. What I have written is from practical knowledge and observation, and I will give two illustrations in point for proof. On the Wellington road, south of London, was a place that used to be almost impassable at the time the frost was coming out of the ground in spring. The bog-hole was done away with by a tile drain up the center of the road, and that section of the road has been good ever since, in all kinds of weather. Another instance: On the fifth concession of Westminster, Mr. Cousin, then a Township Councillor, caused a piece of drain to be dug down the center of the road and tile put therein to take water from a low place in the road. It could have been dug for half of the money down the ditch at the side of the road. That is a part of the road that has needed no repairing since, while many a load of gravel has been put on both east and west of it. After the work was done some people pronounced the councillor crazy, but the extra money laid out on the tile drain has been redeemed long ago, in the saving of gravel, and this is a better part of the road to-day than that east and west, where new gravel has been used.

Now, what I would suggest to township councils is to try the tile draining on the parts of the road most needing draining, if they doubt the practical working of the tile-drain method for saving gravel.

I hope to hear more from fellow farmers, so that the powers that be may have a thorough knowledge of what is good roadmaking from the farmers' standpoint.

Middlesex Co., Ont.

JOHN LAWSON.