

him believe the truth when he wants to believe an error."

Now, the farmer who is up with the times will save the liquid as well as the solid excrement, and it cannot be spread over the soil, which is usually wet and often frozen in the winter, and so is not in condition to absorb and hold the fertilizing qualities of manure as it is soaked out by the winter and spring rains and melting snows. But, worse still, the soil is often frozen in winter and covered with snow, on which the manure is spread, the snow often going very rapidly with the spring sun and rains, and at least half of the manure's value is washed away. Some have said that on the hillside this might be the case, but the fact is that there is no land we cultivate that water does not find its way off from. Would the farmer who spreads manure in the winter think that commercial fertilizers could be applied in the winter without a loss, and yet some of these fertilizers would not lose so large a per cent. of manure, unless bodily washed away. Of this class of fertilizers, I would mention ground-bone.

In conclusion, I will say that there is nothing more worthy of the careful attention of the farmer than the building-up and maintaining of the fertility of the soil.

Lightning Rods—Construction and Value.

Attached to the report of proceedings of the last annual meeting of the Mutual Fire Underwriters' Association of Ontario there is published considerable information on the protection of buildings against lightning, and the use and construction of lightning conductors. This information has been collected from both English and American sources, and represents the latest conclusions on the subject. Incidentally, we learn from the report that a few companies in Ontario make a reduction in premium where buildings are properly rodged, and rods kept in good repair.

We subjoin a few of the suggestions in regard to protection from lightning.

The secretary of an American insurance company reports that, while 60 per cent. of all the losses sustained by that company had been by lightning, but \$250 had been paid for damages to rodged buildings. Of forty mutual companies in Indiana, not one had ever had a loss on a properly-rodged building. Of 654 lightning fires in Ohio in 1908, only one building had a modern lightning-rod on it.

A lightning-rod should be run from permanently moist earth up to and along the ridge of the building, and down to permanently moist earth. If a building is over 100 feet long, a third cable should be run down the side of the barn, near the middle. Upright points should be five feet high, and about 20 feet apart. Cables of well-galvanized wire not less than $\frac{1}{2}$ inch in diameter, are recommended for rods. The cost for material for rodging a 100-foot barn is placed at \$10 to \$15.

A metallic roof, properly connected to the earth, affords a reasonably good protection from lightning. Where frame buildings with tin roofs prevail, there is little destruction from lightning. The lower end of rain spouts should have metallic connection with the earth. If there are no down spouts, it is desirable to run a wire conductor from each of the four corners of the roof to the ground.

Steel windmills or derricks need no protection, as they are a protection in themselves. A steel mill on a wooden derrick should be grounded with a heavy galvanized-iron wire.

Wire fences should have ground wires attached at short intervals of not more than 100 feet.

The condition of a lightning-protective system should be watched, and repairs made when necessary.

More About New Ontario Opportunities.

Editor "The Farmer's Advocate":

In answer to your inquiry regarding conditions and improvements in New Ontario, I would say that I have 24 acres cleared, and own 160 acres, the usual Government allotment. We raise peas, oats, hay and vegetables, such as potatoes, parsnips, carrots, onions, lettuce, cucumbers, but as yet we are unable to grow tomatoes, corn, etc., with any great success, on account of the light summer frosts. For wheat, barley, etc., while it, no doubt, could be grown (it has by experiment), to sell, there is no mill, and no sale, as yet. The settlers grow enough for their own feed. Average yield for oats is probably 10 bushels to the acre; potatoes, about 200 bushels. Root crops do well in loamy clay soil. The average prices for grain and roots that are salable are: Oats, about 60 cents; hay, from \$14 to \$20; potatoes, 90c. to \$1.00 per bag; carrots, etc., 20 cents.

Regarding the returns from a farm here, the settlers mainly are only making a living, and making such improvements (which improvements may represent the net returns to about \$75 per year). As the majority of settlers in this locality only have from 15 to 40 acres, this amount of clearing is necessary to keep an average family



A Good Way of Fastening Hoops on a Stave Silo.

Two or three 4x4 inch standards, set up as staves, and projecting two or three inches beyond the outer circumference of the plank staves, serve to run the threaded ends of hoops through. Nuts, blocks and washers are used, of course, to tighten the hoops.

and a very limited number of stock, say one team and a cow.

One piece of land here has been under constant cultivation seven years, without fertilizing, and the same this year is producing a good crop of wheat. It is mainly pure clay, but plows up nicely, and bakes very little. On the Government roads, the average farm is valued at from \$500 to \$1,500.

A man owning a homestead, having \$500 capital, and is willing to work, in ten years should have sixty acres cleared of ordinary timber. Of



Hoeing His Own Row.

course, some land is covered with second-growth, small tamarack, spruce, birch, tag alder, etc., and is easily cleared for, say, \$20 an acre, ready to plow, roots out and all; while heavier timber would cost \$30 per acre, the larger stumps being left for years to rot, with a consequent loss in returns for a number of years, the soil being the same in both cases, since the light timbered lands were originally covered with heavy timber, too.

If another excursion is held to this country, I trust it will be convenient to visit this community of Brentha, say, along the Government road from Heaslip, on the T. & N. O., to Charlton. The land is exceptionally good, and in places level for nearly two miles.

ALBERT QUITTENTON.

The English Sparrow.

The English sparrow is looked upon by the Minnesota State Entomologist, at the Experiment Station, as a menace to farmers, not only destroying grain, but also driving away useful birds. The Division of Entomology suggests that a very humane way of destroying them is to feed them wheat for a few mornings in the winter, in a straight line, in yard or field, and when the birds have become accustomed to the system, to rake the line with a gun loaded with fine shot. Destroying sparrows' nests several times in succession, as they were rebuilt, has discouraged nesting in the locality. Destruction by means of active poisons is not recommended by the Division, because the dead birds are eaten by cats, poultry, etc. The Entomologist has discouraged their roosting during the winter under the eaves of his own home, and defiling the building, by use of a small collecting pistol of fine shot, shooting them off their perches at dusk.

THE DAIRY.

Chicago Gets National Dairy Show

At a meeting of the Board of Directors of the National Dairy Show Association in Chicago, June 18th ult., it was decided to hold the fifth annual show in the Chicago Coliseum, October 20th to 29th, 1910. This means a change of location for this show this year, as last year it was held in Milwaukee, and in truth, the decision had been previously made to hold it there again this year.

Creamery Needs and Suggestions.

Four outstanding needs in our creamery industry, so far as the patrons' duties are concerned, are thus enumerated in a folder entitled, "The Babcock Test vs. the Oil Test," issued by the Ontario Department of Agriculture:

- (a) Richer or higher-testing cream supplied to our creameries.
- (b) Separating done under more cleanly conditions.
- (c) The cream cooled immediately after separating, and kept cool until delivered at the creamery or to the cream-drawer.
- (d) The use of the Babcock test on the farm, for testing individual cows and the cream which is supplied to the creamery.

SUGGESTIONS HOW TO OBTAIN THESE RESULTS.

1. Regulate your separator to skim not less than a 30-per-cent. cream.
2. Be sure that the speed of the separator is maintained at the required number of turns of the handle.
3. Separate the cream in a room which can be kept clean, free from dust and impure air.
4. Wash the separator every time it is used.

You would not think of asking anyone to eat his or her dinner off a plate which had not been washed since the previous meal. Therefore, why do some of our patrons ask people to eat butter which has been manufactured from cream separated with a separator which has not been washed since it was last used?

5. Cool your cream to a temperature of 50 degrees by setting the cans in ice, cold spring water or cold well water immediately after it has been separated.

6. Keep your cream cold and sweet until delivered to the drawer or at the creamery.

7. By sending sour, curdled cream to the creamery, you are the loser, not only in the quality of the butter manufactured from such cream, but also in your test. This means dollars and cents to you. Are you interested in dollars and cents? Is it not for the purpose of making money that you keep cows?

8. Use the Babcock test for testing your cows and the cream you send to the creamery. By the use of the test, you can tell whether your dairy operations are a paying proposition or not.

Keep the milk clean, and cool it promptly. These two things—cleanliness and prompt cooling—will insure against milk being returned from the factory, save under very exceptional conditions.