

doubly surprised at the greatly improved appearance of the road. The all-important thing—the one likely to be neglected—is the frequent use of the drag. If a farmer neglects cultivating his corn or potatoes till the weeds get the start, he is up against a hard proposition. It pays, and pays well, to attend to the cultivation in time; so, too, with roads—a little attention in time is equally as important. The old adage, "A stitch in time saves nine," applies all right on the road question, and I know it from experience. I think there is enough intelligence among the farming community to appreciate the value of good roads, in the saving of time, the wear and tear, and the pleasure to be derived in travelling over them, that they would be willing to pay even an additional tax, provided they were assured the money would be judiciously expended. The system of maintaining our earth roads in the very best possible condition, as briefly outlined above, I am willing to admit, might not be so easily carried out by the municipal councils. It so frequently occurs that only a portion of a road needs dragging at a particular time, and it would be almost impossible for the road commissioner to be on hand always at just the right time to do the very best work. It appeals to me that farmers residing along the adjacent roads should take enough interest in them to see that they are kept dragged as often as required. It would not take very much of their time, and could generally be done at odd times. They are on the ground, and can readily see just when the work can be done to best advantage. I think many farmers, if they once took, say, quarter, half or a mile of road, and used the drag faithfully for one season, would be so pleased with the results that they would then willingly thereafter maintain the portion of road free. Under the old statute-labor system, that has outlived its usefulness, with the then limited knowledge of road construction, too many took little interest in the work. There were those who looked upon putting in their statute labor as a holiday, and often there was a rivalry as to who could tell the biggest story or crack the wittiest joke. Those days are gone, and we of to-day, I trust, seeing the great need of paying more attention to our roads, are willing to give some of our time and money to the work. Good roads, like good horses, vehicles, or anything else, always have their value.

I have learned to make much use of the drag on roads that I had thought impossible. Experience is the best educator.

Handles on the drag I have found of decided advantage; would not think of getting along without them. I have also been able to make good use of the drag in closing the trenches of tile drains. It is the best thing I have found for removing snow from ice; by using a long chain for a hitch, you can carry off a large quantity, which, when far enough removed, have your team draw sideways, and two men assist on the handles, and the drag is free, ready for another load. Those who may have occasion for such work, should just try it, and be convinced of its utility. I will close my remarks for the present by appending a few stanzas which have previously appeared in "The Farmer's Advocate," but are worth repetition.

W. B. RITTENHOUSE.

Lincoln Co., Ont.

DRAG THE ROADS.

When the smiles of spring appear,
Drag the roads;
When the summer time is here,
Drag the roads;
When the corn is in the ear,
In the winter, cold and drear,
Every season of the year,
Drag the roads.

When you've nothing else to do,
Drag the roads;
If but for an hour or two,
Drag the roads;
It will keep them good as new,
With a surface firm and true,
Fall in line, it's up to you,
Drag the roads.

Will you do the proper thing?
Drag the roads;
Get the system on the wing,
Drag the roads;
Give the drag a lively swing,
Toss the laurel wreath to King,
Hats off! Everybody sing,
Drag the roads.

A WENTWORTH COUNTY BARN PLAN.

Please find under separate cover plan of barn owned by John Gathercole, and built by myself. This building will accommodate 24 cows tied in stanchions. Building is equipped with the King system of ventilation.

GEO. MILES (Jr.).

Wentworth Co., Ont.

TO TIGHTEN THE FRAME OF A GATE.

A very simple and effectual means of tightening the frame of a gate is to run double strands of soft wire both horizontally and upright, and twist each pair of strands together with an old file, or any piece of iron or steel. This has the effect of making a twisted-wire rope or cable, as soft wire so twisted will not untwist when the file or whatever it may be is removed. A couple of such wire ropes upright, and a couple more cross-wise, will draw and hold the frame of a gate together in good shape. The same method of twisting the wire may be used to advantage for many other purposes. A strong tensile force can be exerted by the twisting of a wire.



Earth Road Graded and Kept in Condition with Split-log Drag.

Scene along Cherry Avenue, showing row of cherry trees on west side, and plum orchard to the back, along road referred to in Mr. Rittenhouse's article.

THE DAIRY.

ANOTHER VOTE FOR PASTEURIZATION.

Editor "The Farmer's Advocate":

The Gore factory has been pasteurizing its whey the present season for the first time. The whey when delivered is quite hot, and apparently in a much sweeter and more pleasant condition, and contains neither scum nor sediment. Have no means of testing

may be made to look clean by rinsing, they are not bacteriologically clean unless scalded with hot water or live steam.—Editor.]

SKIMMING OF FACTORY MILK ILLEGAL.

In the fall of the year, when the cheese factories cease making on Saturday nights, and when a thick, leathery cream rises on the Saturday night's milk held over, a number of patrons are sorely tempted to skim off a proportion of the cream and make from it the family's weekly supply of butter, sending the skimmed milk to the factory on Monday morning along with the rest.

Various sophistries are employed to still the inner voice of conscience, and give an appearance of justification to the practice. We have heard it argued that the cream which rises might as well be made into butter, since otherwise it would only go into the whey vats. As a matter of fact, this impression, however it originated, is almost wholly groundless. It is true that in cheesemaking there is always a slight loss of butter-fat, and under some conditions the loss is slightly greater than under others, but at the very worst the total loss is, in the whole cheesemaking process, but a small fraction of the total butter-fat content of the milk.

Just here, a word of explanation may be in order as to how it comes that there is any loss of fat in making cheese. First of all, as the knife which is used for cutting the curd passes through the coagulated mass, dividing it first into slices, and then into cubes, a certain number of fat globules pass out from the cubes of curd into the whey, and during the firming process and subsequent stirring of the curd, additional slight losses occur. Unless the milk contains, say, four per cent. or over of fat (which is richer than is ordinarily found in the average of a vat), this mechanical loss will be very little greater from fairly rich than from poor milk; and in any case the loss is small, averaging only about .23, or twenty-three one-hundredths of one per cent. Another slight loss occurs in the cheddaring process, the degree of this depending to a great extent upon the condition of the milk and the efficiency of the maker. The two losses together will ordinarily amount to about .25 to .3 per cent. of the total weight of whey, or an average of .28 per cent., though the percentage varies, as above indicated.

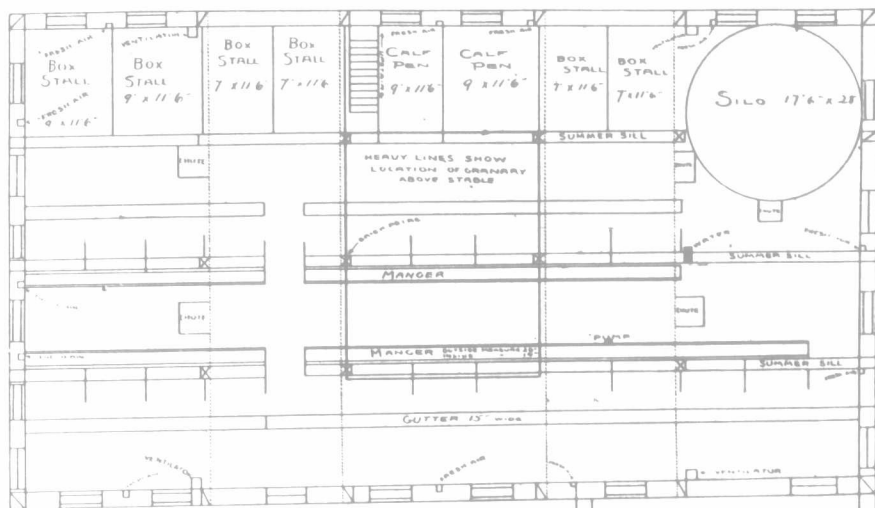
From the fact that stirring of the milk by the patrons is advised, some may conclude that the object of it is merely to prevent the cream rising, and that if the cream does rise, it cannot be incorporated with the curd. The truth is that the

primary object of stirring the milk is to cool it quickly, and thus keep it sweet longer. The keeping of the cream from rising is a secondary consideration. It is true that if the milk is not properly cooled, or is left at too high a temperature, the cream will toughen, and will be hard to incorporate with the milk the next morning; but if the milk is properly cooled, say to 60 degrees F., the cream, though it will still rise, can be readily incorporated with the milk the following morning, on being agitated.

Now let us see wherein lies the injustice of skimming milk sent to the factory. Cheddar cheese is supposed to contain between thirty and thirty-five per cent. of fat, and, to make a proper cheddar, the milk must contain a normal percentage of fat. Whenever any fat is taken from the milk, the product will be partially skim-milk cheese, which is inferior in quality, and the making of which is directly against the Dominion law (Inspection and Sale Act), while Ontario statutes (The Milk,

Cheese and Butter Act, 1908) expressly forbid skimming, as well as watering, of milk sent to cheese factories, and provide rather heavy penalties for these offences.

It should also be understood that the skimming of milk materially reduces the quantity of cheese



Barns on Farm of John Gathercole, Wentworth Co., Ont.

as to its feeding value, but feel quite convinced that it is considerably increased; the hogs seem to relish it better. The cans are sweeter and certainly much easier to wash; have not discovered any grease adhering to the can. Formerly during the hot weather it was necessary to scald the cans every day; this season it has scarcely been necessary at all. The cans, so far as I can judge, seem to corrode less, and, as a result, would last longer.

I certainly think that the pasteurizing would have a tendency to improve the quality of the milk and cheese, especially with those who were careless in the care of milk or manufacturing the cheese. The cheesemaker charges \$1.00 per ton of cheese. I am quite sure it pays to have the whey pasteurized, and would prefer that the practice be continued.

Oxford Co., Ont.

GEO. R. COON.

[Note.—While this letter is very satisfactory as indicating the greater ease with which the cans may be washed when the whey is pasteurized, it would be misleading if the impression went abroad that pasteurization is a substitute for cleanliness or for care in washing cans. Pasteurization or no pasteurization, every milk can should be washed and scalded every time it comes home from the factory. Even though the cans