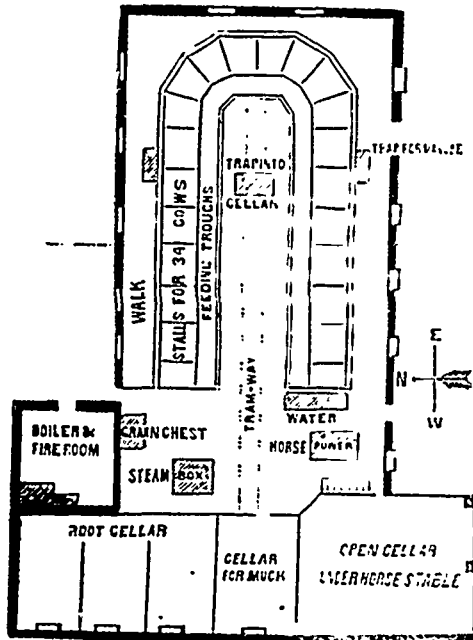


The Dairy.

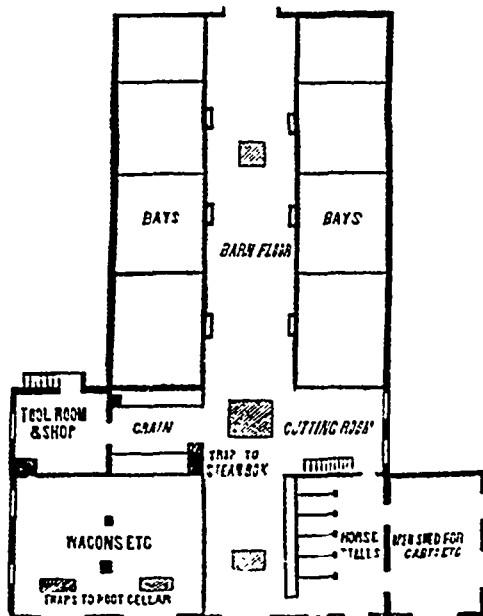
The "Edgewood" Milk Barn.

In our last issue we gave the pith of some suggestions about "Milk Farming," contributed by Donald G. Mitchell to the *Annual Register of Rural Affairs* for 1867. We now proceed to lay before our readers a description of the Milk Barn planned by Mr. Mitchell for his own use on his farm of "Edgewood." Convenient buildings are fully half the battle won in taking care of stock, or carrying forward any operations, agricultural, mechanical, or commercial, that



BASEMENT AND CELLARS OF MILK BARN.

require to be attended to under a roof and within walls. It is often with the farmer, when prepared to build, a matter of no small difficulty to plan his proposed structure. He knows what accommodation he wants, but how to get it in the most economical and convenient manner, "aye there's the rub." What suits one man will not be entirely appropriate



MAIN FLOOR

for another, but often, by seeing a plan actually drawn, it is comparatively easy to modify it, so as to suit one's own purposes. It is with this view that we lay before our readers Mr. Mitchell's plans, not at all supposing that they will exactly suit any one who may be led to examine them, still less that they will

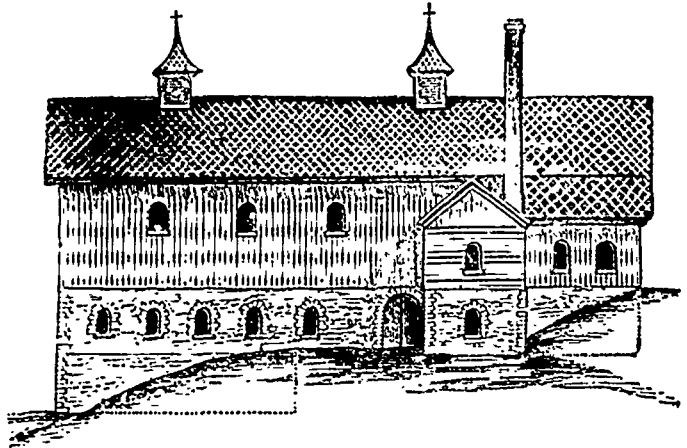
please everybody, but in the belief that they may be useful as a study, and suggestive as an example.

This barn is adapted for a liberal use of roots in winter, and also for the system of soiling in summer. Of the roots which a milk farmer may grow to a profit, Mr. Mitchell ranks the mangel wurzel first, the carrot next, and the swede turnip third. For a dairy farm where winter butter is made, carrots and parsnips are highly recommended, as fitted to give both richness and colour to the butter. The mangel wurzel is more succulent, more easily grown, and as easily harvested as a turnip crop. The great objection to the carrot is the expense and trouble of harvesting it. The objection to turnips because of their giving an unpleasant flavour to the milk, Mr. Mitchell thinks may be to a considerable extent, if not wholly met, by certain simple precautions. A little sprinkling of nitre in the cans or pans will destroy the turnip taste; or what is better, if the cows are brought to this diet gradually at first, by giving a few slices covered with bran, and afterwards increasing the allowance by slow degrees, there will be no disagreeable flavour about the milk. For saving of trouble in feeding, it is best to store the roots in the barn cellar, though they will keep well enough pitted in the field, arranged in pyramidal heaps, covered with a foot of straw, and a foot of earth over the straw, with due regard to drainage. In the cellar carrots keep their natural condition better than turnips or parsnips, better perhaps than any root that is grown. All roots ought if possible to be harvested in sunny, dry weather, thrown in heaps, and well shaken as they are thrown, and a final shake given them when they go into the cart for hauling. If they can be dumped down the cellar trap, they will be still further shaken, and all this will tend to free them from dirt, a very desirable matter, for to wash roots daily for feeding is a troublesome, expensive thing, and there is no possible, or imaginable profit in feeding mud. Both a turnip cutter and a steaming apparatus should be provided.

In regard to summer feeding, Mr. Mitchell advocates the system of soiling in part, and has kept this in view in his barn arrangements. Nothing can be more favourable to a full flow of milk than the juices of the early spring grass, upon which we can turn the cows to graze in the month of May. As a preparation for this succulent diet, plentiful rations of carrot or mangel wurzel should be given during the latter part of April. With seasonable and copious May showers, the pasturage maintains its luxuriance up to the middle of June. At this season there is apt to be a falling away of the pasture supply, and if grazing only be depended on, there is no help to be had until the earliest mown meadows can be resorted to. In August there is often another time of scant pasturage, and this together with the hot weather then usually prevalent, tells fearfully upon the yield of milk. How are the cows to be kept up to the mark at these times? Doses of meal or bran may help the matter somewhat, but the surest and most effectual plan is to grow green forage crops, and feed these to the milch cows under the cool shelter of the stable. This is soiling, and is the true method for every milk-farmer to adopt. Of the crops that may be grown for this purpose, winter rye comes in the earliest; next clover, or what is better, if it can be grown, lucerne; then oats or spring-sown barley, and afterwards Indian corn drilled in close rows, or sown broadcast. We wonder Mr. Mitchell says nothing of vetches. Sown with a small proportion of oats to help to keep them upright, they furnish an excellent green fodder. Of Indian corn, Mr.

Mitchell prefers to sow the long kernalled Maryland variety, as giving greater breadth of leaf, greater height, and more rapid development, though some prefer sowing the sweet corn, as furnishing more saccharine qualities in the stalk. We have grown the large Southern corn as a soiling crop in the vicinage of Guelph, and find it answer admirably. Until frost comes, this green crop may be sown at intervals, and when it does come, the carrot and turnip tops will follow suit and prepare the way for the roots themselves.

Mr. Mitchell's barn plan is provided with all appliances necessary for the system of winter and summer feeding, of which we have given a brief account, and nothing more will be necessary in addition to the engravings—which speak for themselves—except a few explanations, and these will be best given in the author's own words: "The boiler and fire-room, it



MANURE CELLAR. NORTH ELEVATION. ROOT CELLAR.

will be observed, are entered only by an exterior door, and steam is conveyed to the cooking tank through the wall. A manure cellar is under the eastern half of the stable, extending from a point indicated by the dotted lines on either side. A tramway is provided, leading down the centre of the stable, for the distribution of food, and for transport of muck from the cellar, partitioned from the root cellar for that purpose. The tram-way car should be furnished with a moveable box for cooked food, another for muck, and a third and larger open frame for the reception of green fodder dropped through from the barn floor above.

Water should pass in a trough—indicated by the two lines within the feeding-boxes—completely



WESTERN ELEVATION.

round the stalls. This trough should be covered to exclude dirt, and provided with traps against every manger, which traps the cows will easily learn to lift with their noses. The gutter for liquid manure may be made to discharge at any point into the cellar below. "Stanchions," as fixtures for cows, are most economical of space; but I prefer the ring and chain fastenings; these allow of an unobstructed view of the animal, from either front or rear, and show I think a little more of humanity in the herdsman. The upper floor is simply arranged, and will explain itself, when examined in connection with the basement and elevations. The farther trap upon