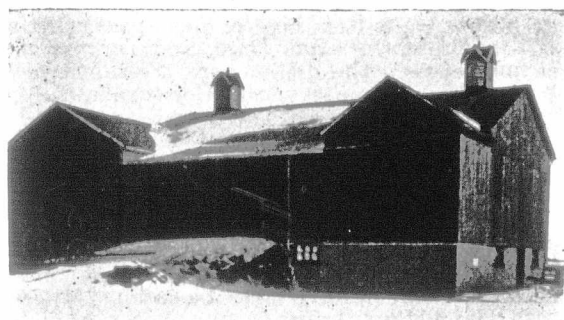


Old Barns Rearranged.

I send particulars, drawing and photo of my barn, 48x85 ft. Originally, the barn was composed of one structure, 35x55 ft., and an open shed, 30x48 ft., which we moved to the end of the barn, even on one side and extending out 13 ft. on the other. We then built a lean-to, to fill it out even, putting a gothic over the silo, which is 28 ft. high. This plan gave us more floor space than any other construction, and with less wall. The old lumber off the side of the shed and the end and side of the barn completely sided the barn in its new shape. The entrance to the barn from the house is to the south, the yard is on the east, and the driveway on the



EXTERIOR VIEW OF S. M. SANDERS' REMODELED BARN.

west. The advantage of this plan is to save steps, the root house, well tank, silo, and chop bin being as near together as they could possibly be and suit the up-stair arrangement. All the stock in the building can be fed in the quickest possible time, as it is only a few steps in either direction. The water is pumped by horse power or hand, the roots pulped in the same way, the pulper and pump both going at the same time. The water is piped from the tank to the water box for the loose cattle; it also goes to a barrel regulated by a float valve. From there it goes to all the stock in the building that are tied up. Two animals drink out of one iron box. The water also goes out to supply the engine, fed from a barrel set in the bank so that the hose of the engine can reach it. The tank in the barn is 4 x 4 x 12 ft. We use the engine for cutting straw, grinding grain, and filling silo. The barrel regulating the water system is in the corner of the root house, and a vat at the side of the tank for soaking feed for pigs. The manure from the loose-cattle pen is drawn direct to the field about once a month. We can drive in and turn around with the wagon or sleigh, going through a seven-foot doorway.

Huron Co., Ont.

S. M. SANDERS.

[NOTE.—The housing of swine in same building with cattle, especially dairy cows, is not to be commended, unless separated by air-tight partitions.—ED.]

Joseph E. Gould's Dairy Barn.

To the Editor FARMER'S ADVOCATE:

Enclosed please find basement plan of my cow barn, erected in 1899, for 36 cows, and loose run for young stock. I think the plan will explain itself. It was originally made for a dairyman in Wisconsin, and has been sent to three others since, who have expressed themselves in the highest terms.

The root house, two silos and implement house are in a lean-to. The water troughs are of galvanized iron, running the whole length and supplied from overhead tank. The water is pumped into tank by gasoline engine in separator house. The walls are frame on stone foundation (6 inches above ground level), the frame 10 feet high (between floors); two thicknesses of boards inside, with paper in between, and the same outside; hollow space between 4 inches.

Ventilation.—Cold air enters near floor from the outside by four boxes, which are turned as soon as they get through the wall, and run up 8 feet from the floor, when the cold air discharges. Four ventilator tubes run up from within 18 inches of the floor to roof, and then along rafters to cupola on top of barn. (Height of peak of barn from floor of stable, 49 feet.)

The manure is drawn out every day by tram to the field, and spread out even. The wagon or sleigh is backed into the passage. The small tank in separator house is large enough to hold two

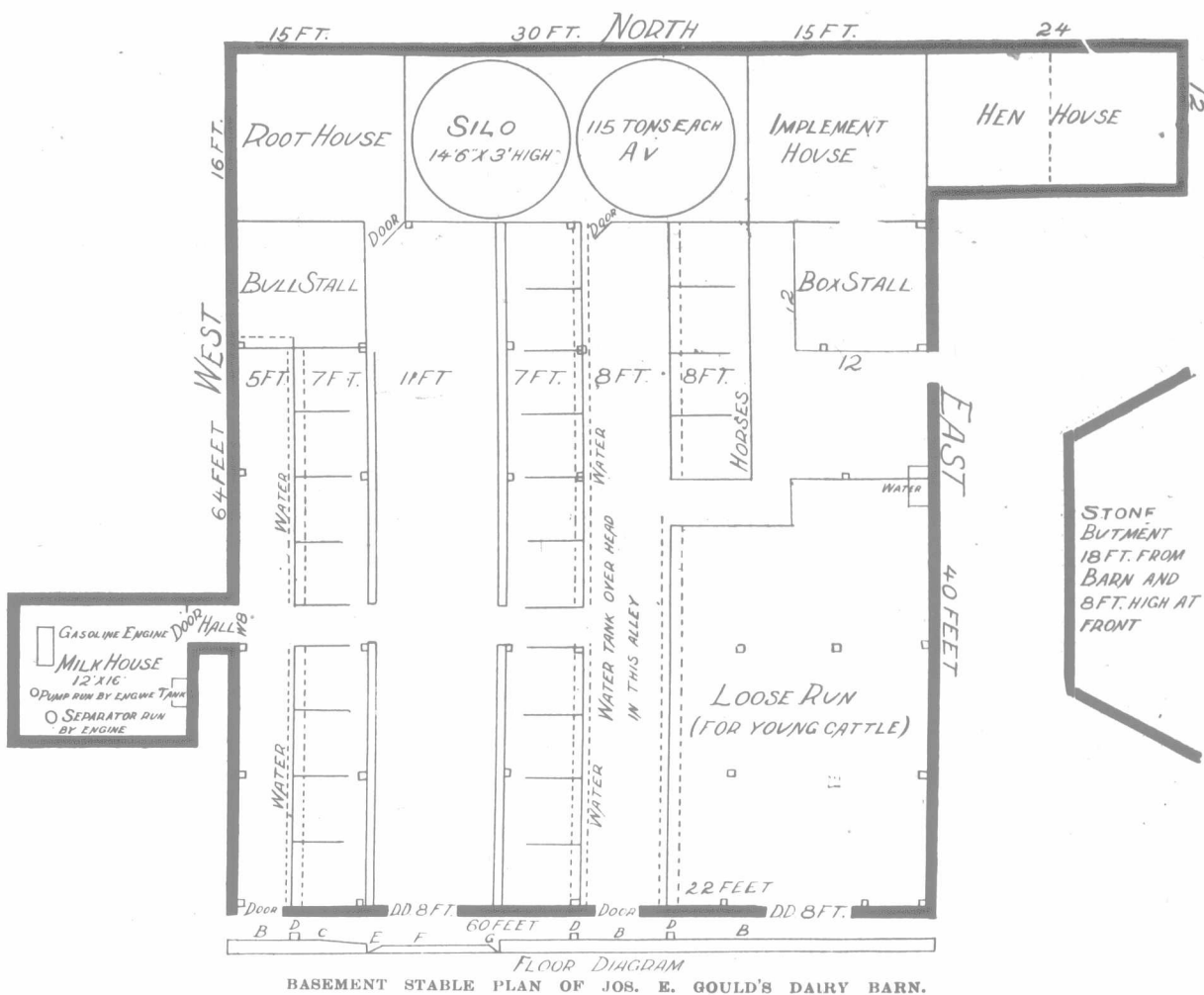
cream-shipping cans. (Cream is sent to the creamery four times a week by train.) The water is pumped into this tank from the well daily to keep it cool. The object of the tank over the main feeding alley is first to allow of the chill being taken off the water by the temperature of the stable (never lower than 59° and higher than 70°), and also to supply the water troughs. The trough between horse stable and open run is supplied this way. Water is pumped each time the separator is run, and before the pump is started all troughs are filled before the cold water is put in. The tank never leaks. The stalls are 6 feet for two cows, and are double stalls (Jersey cows). There are sheds outside for other implements and wagons. The carriage house is independent and away from barn. We have only one driveway (16 feet) above, and the wagons are backed out. We use blower cutter (15 tons per hour) to cut and fill our silos, and we set it on the barn floor behind the threshing machine, with an engine outside (west) of the barn, and all straw is cut at the time of threshing.

Ontario Co., Ont.

JOS. E. GOULD.

[NOTE.—The inconvenient arrangement of having to back sleigh or wagon into stable to haul out manure might be obviated by shifting the position of silos in the lean-to, so as to leave space between one of them and the root cellar to drive through.—ED.]

The land intended for corn having been plowed in the fall, as it is in most cases (and for this purpose a clover sod is preferred), manure being applied during the fall and winter, spreading as drawn, if the field be tolerably clear of thistles and other weeds, it may not be necessary to plow in the spring, the only preparation required being frequent harrowing and cultivating to destroy weeds that may spring up and to conserve the moisture of the soil. Excellent crops have been grown by this process of preparation, but if for any reason spring plowing is found necessary, it should be rather shallow and followed immediately with the roller and harrow. If manuring has been delayed till spring, plowing will be almost a necessity, though not absolutely so if the manure is very short, as it can in that case be worked into the land by surface cultivation. A clover sod may be plowed in spring and a good seed-bed be prepared by cultivation, and a good crop grown. Sowing is usually done from the 15th to the last of May, and may be done either in hills three feet six inches to four feet apart, the land being marked off both ways and the seed deposited at the intersections with a hand planter, or by making a hole with a hoe and dropping the seed, or it may be sown with the grain drill, two or three tubes only being used, as they can be arranged to sow the desired distance apart, the other tubes being closed. The distance



Corn Planting and Cultivation.

Maize has become one of the most important farm crops, especially for ensilage purposes, in many sections of Canada supplying probably the cheapest and best fodder we have for cattle and other live stock. The certainty of the crop under average conditions, its ability to grow and thrive in dry and hot weather, and the great bulk of feed it produces from a given area of land, gives it great value for feeding purposes, providing an abundance of succulent food for winter use, together with a large amount of matured, or nearly matured, grain, if cut and stored at the proper period. With reasonable care in the selection of varieties suited to the locality, and such preparation and cultivation of the soil as any average farmer can readily bestow upon it, there need be no difficulty in securing anywhere from ten to twenty tons of this excellent fodder per acre, and a silo that will prove satisfactory may be built for a price which the ordinary farmer can well afford, while one who lacks faith in the silo, or the means wherewith to build, can, by good management, secure the dried and cured corn by stacking or storing in the barn in such condition that by cutting it and mixing with other foods he may have very satisfactory winter fodder stored in ample supply and at a minimum of cost.

Corn-growing has been successfully practiced by many farmers in different parts of the Dominion, for many years, and such have little need for information on the subject, as they have studied it in all its bearings, but to those who are new beginners or needing pointers, a few general observations may be helpful.

apart of the rows in this case should not be less than three feet, and three and a half is preferable. Many corn-growers claim that even for ensilage they can secure as much weight and a better quality of feed, especially in the amount of grain per acre, by the hill system than by drilling, and that by being able to cultivate both lengthwise and crosswise the cultivation is more complete and the yield correspondingly greater. With the hill system, from six to ten quarts of seed per acre is recommended by growers, and probably the mean between these amounts will be found satisfactory, leaving three or four plants to a hill. For drilling, some growers claim that a peck per acre is sufficient, while others prefer to sow at the rate of one-third to half a bushel, and if the plants are found to be too thick, to reduce the number by vigorous harrowing or with the hoe. The tendency is, however, to sow too thickly. As the best growth of stalks and the largest and earliest-maturing ears are secured where the plants are thinnest, they should not be nearer than one foot apart in the row, and doubtless fifteen or sixteen inches would be better. The land should be rolled immediately after sowing the seed, and in the course of a few days, before the corn is up, harrowed to kill any weeds that may have sprouted and to admit the air and retain moisture. Harrowing may be repeated before the blades appear above ground, and once or twice after. This treatment will effectually kill nearly all weeds except thistles, and will hasten the growth of the corn. The horse hoe should be used as often as needed, and it will pay to use it every week or ten days, and especially after each rain, as soon as the land is dry enough and before it gets too dry. The loosening of the surface soil has the effect of conserving the moisture in the land. Cultivation should be continued as long as a horse can readily pass between the rows. It should be fairly deep at first and shallower as the corn grows higher and spreads its roots further out between the rows, as deep cultivation at that stage may cut many of the roots and fibers which feed the crops. The corn crop responds generously to reasonably

