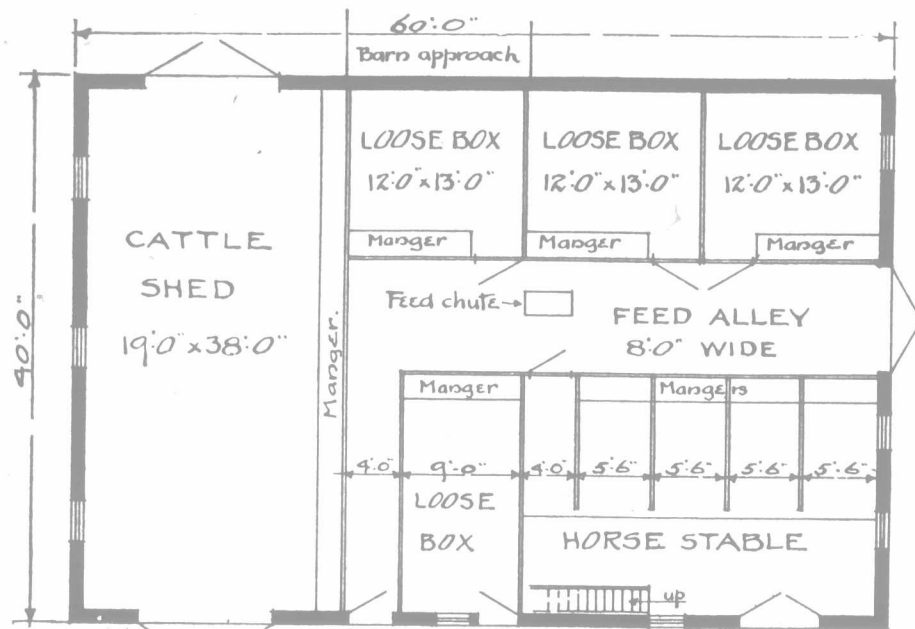
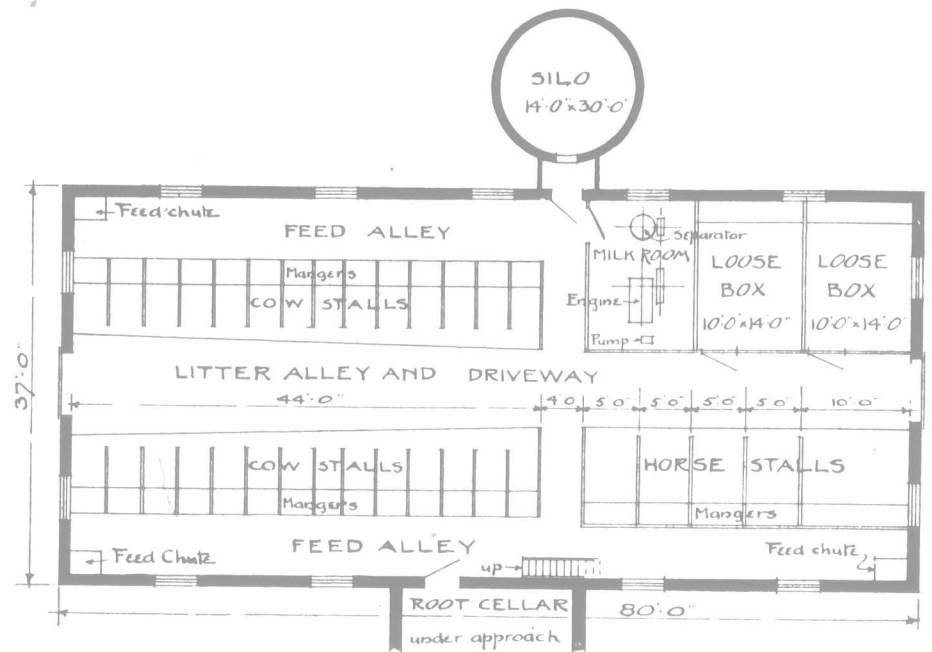


Barn Plans and Different Styles of Construction.



Loose-feeding Barn on John McAlister's Farm, Elgin Co., Ont.



A Glengarry County Barn.

Last week we illustrated a few house plans, from which we hope readers were able to get a few helpful ideas. This week we are publishing four barn plans, and two other illustrations showing plank-frame construction. Look them over.

John McAlister's barn, as shown, is a loose-feeding barn and cattle stable. He has another barn cornering the one illustrated, in which cows and horses are kept. Our artist inadvertently put the words "horse stable" in one corner of the plan reproduced. These are double stalls for cattle. The cattle in the large shed are fed from the barn floor above.

Edwin Z. Kemkes' plan is one on which he intends to remodel his barn this year. It may interest some of our readers.

Our Glengarry Co. Subscriber says, in sending his plan, "The object when laying it out was to make it as simple as possible, and at the same time convenient. The central alley-way runs from end to end of barn, and permits of stables being cleaned by driving sleigh or cart between the rows of cows and loading manure from either side. Cement floors and drive-way are finished rough, to prevent animals slipping. Gutters are run at an angle to make provision for different-sized cows. The upper storey has barn floor thirteen feet wide in centre and on each side are two mows of equal size, with feed chutes at corners of barn and on each side of floor. The roof is of galvanized iron, with ventilators and eave-troughs of same material. The size of barn is 80 feet by 37 feet and it cost \$1,600, which includes our own time at regular wages. It would cost more than that, however, built at the present time."

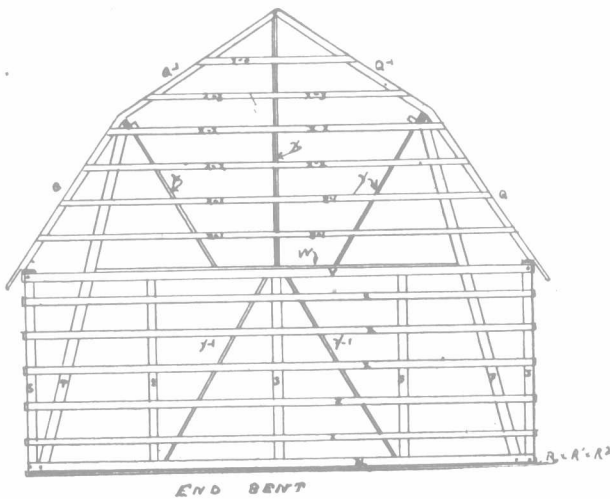
P. G. Dunton says his barn is very handy, well-lighted, and is equipped with running water, a gasoline engine, and a milking machine. The stalls are all filled with milk cows, and the box stalls with calves.

New Styles of Building.

Each year it becomes more difficult to secure timbers to put up a substantial, old-time frame for a barn, and farmers who remodel their barns or are forced to erect new structures in this age are turning their attention to the use of plank and metal. From an economical standpoint in the way of available space for storage and amount of material required, the heavy frame structures

do not compare favorably with the newer type. Comparing the plank and timber frames for strength they are considered to be about equal. A frame is no stronger than its weakest part, and after cutting the mortise and tenon to hold the timbers together the weight rests on a small thickness of timber; with the plank-frame the splice retains the full strength of the lumber.

Men have many ideas regarding the type of barn and method of construction which should give most satisfactory results. What will serve the needs of one may not appeal to another. In circular No. 92, issued by



Method of Constructing End of Plank Frame Barn.

the Dominion Experimental Farms, E. S. Archibald, Dominion Animal Husbandman, illustrates four methods of construction and itemizes the amount of material required for one bent of a barn 38 feet in width. Heavy timber frame, plank truss and frame, gothic truss, and self-supporting roof are explained. We herewith publish the illustration and give the context of the description. It will be noticed that space is left for stabling, but the specifications do not include the material

from the ground level to the ceiling. The material required for that part would be the same in all four structures, and posts for supporting the beams in the stable could be either of wood, steel or concrete. The framing of the ends of the barn is not included in the description given by Mr. Archibald, but the accompanying illustration shows a satisfactory method of framing and bracing the ends.

Heavy Timber Frame.

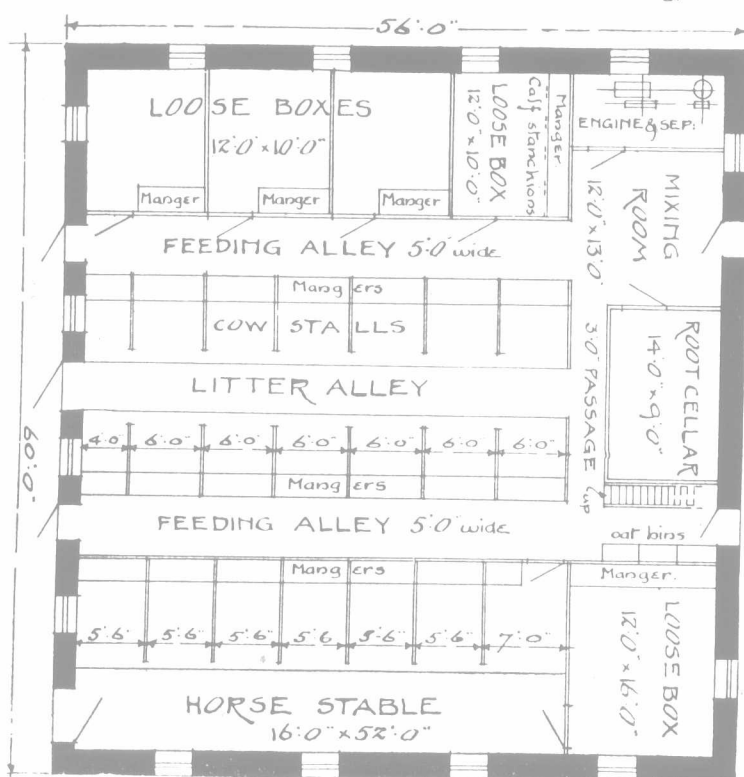
A method of constructing the timber frame is shown in section A, and following is a list of the materials of the loft frame of a barn 38 feet in width, including one truss and the framing of fourteen lineal feet of the barn to the next truss:

	Board feet.
Wall posts—2 pieces, 17 ft. by 10 in. by 10 in.	284
Centre posts—2 pieces, 29 ft. by 8 in. by 8 in.	309
Wall studs—8 pieces, 17 ft. by 4 in. by 4 in.	182
Cross girt—38 ft. by 8 in. by 10 in.	254
Cross girts—2 pieces, 14 ft. by 8 in. by 8 in.	150
Lineal girts—2 pieces, 14 ft. by 8 in. by 10 in.	188
Plate—2 pieces, 14 ft. by 8 in. by 10 in.	188
Purlin plate—2 pieces, 14 ft. by 8 in. by 10 in.	188
Braces—2 pieces, 16 ft. by 6 in. by 6 in.	96
Wall brace—80 ft. by 4 in. by 6 in.	160
Props—8 pieces, 4 in. by 6 in.	100
Rafters—16 pieces, 28 ft. by 2 in. by 6 in.	148
Collar beams—8 pieces, 6 ft. by 2 in. by 6 in.	48

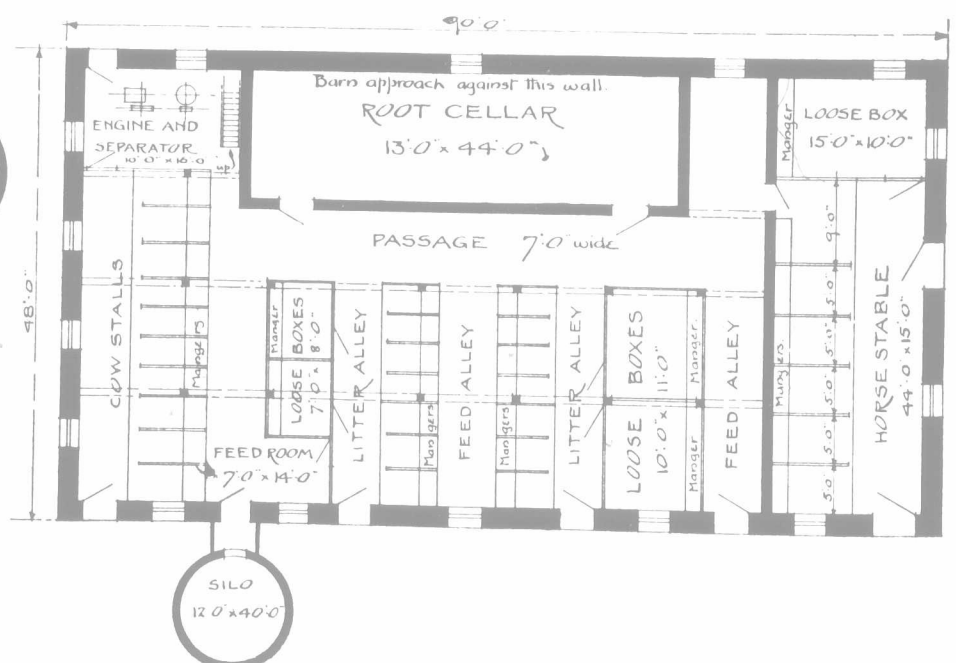
Total lumber required for the 14 feet.....2,595

Plank Truss and Frame.

It is quite possible to construct a strong frame with two-inch plank. As a rule these barns are hip-roofed, which tends to increase their capacity. They are so constructed that there are no posts to interfere with the movement of implements, etc. on the barn floor. In the three styles of plank-frames illustrated and described the frames are made of plank and boards one and two inches thick and from four to twelve inches in width. As neither mortises nor tenons are required the building can be erected in a short time. The weight of the roof is carried to the side walls at joists. Section B is claimed



Barn on P. G. Dunton's Farm, Brant Co., Ont.



Plan Sent by Edwin Z. Kemkes, Waterloo Co., Ont.