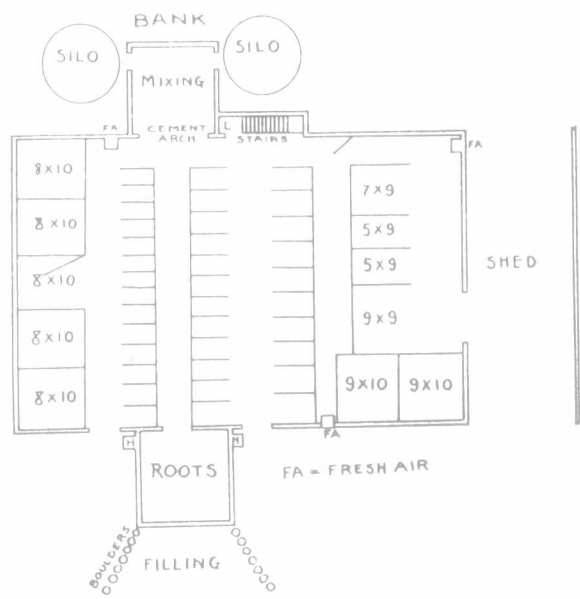


it fill the bill, so we were compelled to patch up one from both sources, with anything we had learned thrown in for variety. It is only the

There are no frills on our work. It is only the result of our conclusion as to what was most suitable to a common dairy farm. These features we had to keep in mind, viz.: cleanliness, convenience, durability and cheapness, in the order mentioned. The last should have perhaps come second, but we found that the other three might not seriously overrun the cost we had prepared for. But at best they make a team hard to drive together, and to unite them all in a barn has kept this household busy for one season. Right here let me acknowledge my indebtedness to "The

men seemed correspondingly low? But perhaps more than that is needed to make for cheapness; so I asked for prices, and then asked for more. I went to see stuff wherever I had any hopes of finding any. In the end, I bought from a dealer in old metal, piping for the partitions between the cows, as also for some gates, besides I beams to reinforce the cement bridges, and some rod iron, just as good for my purpose as new, and at ridiculously low prices as compared with that of the new.

Besides, I thought it would be profitable to look ahead a little, and in the plan make every post or other piece of lumber, if not every bolt



First-floor Plan of Gordon L. Lamb's Barn.

Ground-floor Plan of Gordon L. Lamb's Barn.

Farmer's Advocate" and "Plank-frame Barn." It is only the combination that seems to me to be in any way new. And now let me tell you what we did.

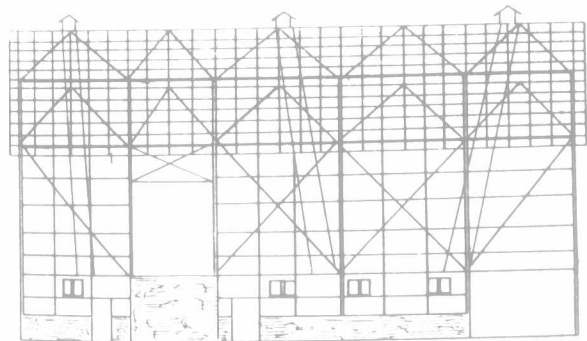
We noted the disadvantages of a complete cement wall, as also of a wooden one. I got prices on various kinds of lumber and timber, standing, and hewn and sawn. I got tenders from all the principal metal-roofers, and this is what we decided on:

For cleanliness and warmth, we chose cement for the floor and three feet of the wall.

For convenience—after our scurry to get the long rows of cattle out on the morning of the fire—we decided on cross rows. Three chutes from the ceiling of stable to peak of barn, with doors

and nail, serve just as many purposes as possible. My attention has more particularly been called to this by some of the expensive barns I visited, where costly beams and posts have actually got in the way; tremendous arches have laboriously been raised up, all to satisfy the fad of "getting rid of interior timbers," and then the immense space is at best only partly filled by heaps—not mows—of fodder.

Now, I laid out to make all the studding of the stalls and alleyways carry the barn floor. These being only a few feet apart, required only very light timbers for beams, and there are no

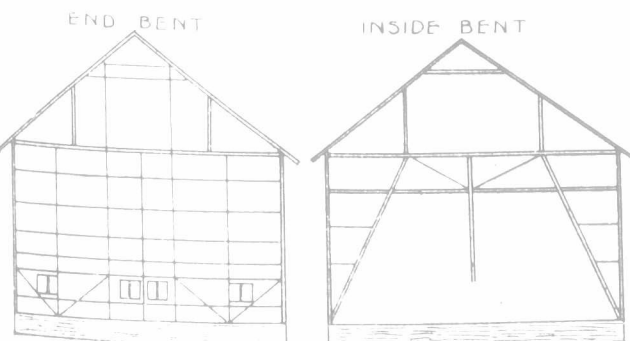


Frame of G. L. Lamb's Barn. Side Elevation.

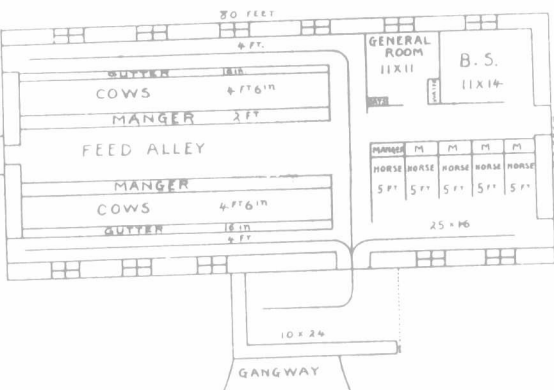
on both sides, serve for letting down fodder, as well as letting up foul air.

For durability, everything in the way of wood must be kept away from the ground, and this is obtained by the cement wall. Of course, at the ends of the threshing floor, because of the approaches, the cement had to rise to the level of the barn floor, but here we made a root house, 12 x 12 inside, by 8½ feet high, on one side of the building, and a similar room for a mixing-room on the other side. These are at either end of the principal feed alley, between two rows of cattle. The roofing we used is No. 26 corrugated galvanized iron.

For cheapness, need I say more than that we both worked under high pressure late and early, and worried a good deal that the pressure on the



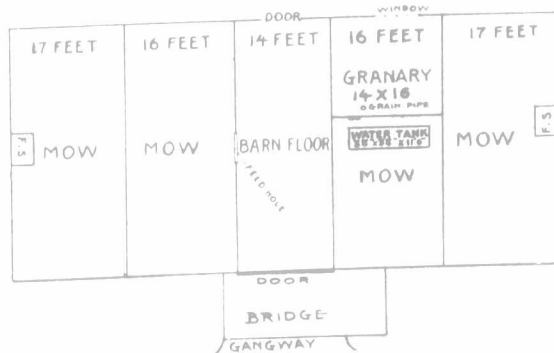
G. L. Lamb's Barn Frame.



Ground-floor Plan of Barn of Thos. G.
Kendrick.

big posts standing in the way of cattle or men; neither are there any low beams obstructing the light.

Then, the raising of the frame was a very simple matter. I have never been in favor of bees, where they can be avoided, for they are usually expensive assistance, and especially at such work as the raising of lig hents in modern buildings is the risk of life too great to excuse them. Some defend them on their social merit, and I can appreciate this argument, but let them be confined to the husking of corn or something similar. No amount of sociability, or any other consideration, would pay me for the crushing of a life or the breaking of a limb at my raising.

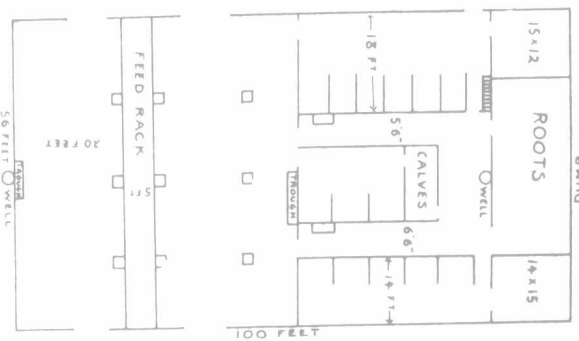


Plan of First Floor of Barn of Thos. G.
Kendrick.

All that was needed to raise our bents was, besides the team and tackle, and teamster, a man at each foot, and one at the brake. Of these three, only the brakeman was in any way exposed, so there wasn't much uneasiness on that score. (Once the team was started, the bent went up to its place in a few minutes, and, by spreading the lifting chains twenty feet, the strain was about as evenly distributed as possible. If anything hung fire, too—and we did not escape everything in that line—there was no crowd of men standing around waiting for dinner.

As to the riddance of interior timbers, I think it has gone too far. Anyhow, I had no notion of getting rid of all interior timbers in my new barn. You will note that the truss hanging between my bents serves the purpose of dividing my four mows into eight. Why an architect who is stretching four fork-tracks from end to end of his plan worries about a few posts in the interior, is more than I can understand.

As to the desirability of widening the threshing floor at times, I have allowed for it by hang-



Thos. Chisholm's End-drive Barn. Ground Plan.

ing up the middle of the bent on one side, with iron rods to the top of the main braces, instead of letting the small middle post go down to the floor, as with the other bents. In order, then, to get all the threshing floor I want, I only have to hold the grain or hay back the required distance for the first six or eight feet, and after that let it come out to the truss again. All this tends not only to greater convenience in operating, but also to lessening the cost of material and building considerably.

Now, as to the plan itself: I have tried to make it so clear that it will not need much description. About material, I used only inch pine for sheathing, all widths—narrow to the sun,



End-drive Barn. First-floor Plan.

and for the strips under metal 18 inches apart, and the wide on less-exposed sides.

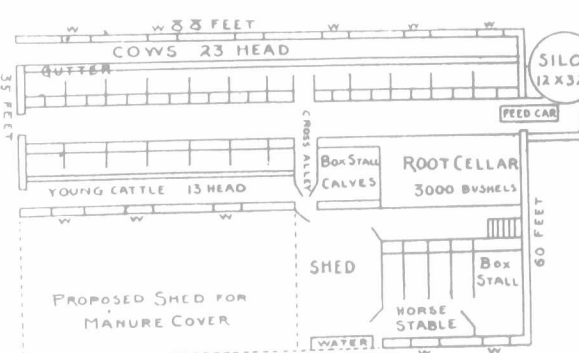
From cement to top of stable I put double boards, with two sheets tar paper between. Floor of barn is double boards, mostly cheap ash, with tar paper between.

Main posts are of two pieces, 2 x 8, with plenty of blocks between. The main brace is also of 2 x 8.

Main plate is of two pieces 2 x 8, one spiked to top of posts and crossbeams, the other to the outside of posts.

Purline plate is of only two pieces, 2 x 6, put on the same as main plate, but well supported by braces.

The top of the end bents are two pieces 2 x 8,



I. W. Swartz's Basement Plan.