

in the inner parts leaves the overhanging roof ten feet wide for wagons, and as it is ten feet high there is no difficulty in driving under to unhitch. Buggies may be sheltered on the shady side, and if it is feared that snow would drift into them one or two sides of the shed may be boarded up.

The workroom above will hold a lot of smaller tools, and is a good place to make repairs, mend harness or store seed grain. By putting the truss above it with an inch truss-rod coming down to the cross beam there is a clear space of thirty feet in the shed below. The whole thing is built in joint construction, posts 2 x 8, in two pieces, built up solid below the cross beam, this made of three pieces of 2 x 10, bridge truss of 6 x 6, rafters 2 x 4 or 2 x 6, according to whether they are ever to hold much weight.

A bridge stairway may be arranged wide

iron, so it does not take as strong a roof as all wood. It does not take a skilled mechanic to build a shed like this; it is lightning-proof and will last indefinitely. Galvanized iron can be safely put on with four-foot spans between strips and the standard eight-foot lengths can be worked in without any waste whatever. Have the walls 6 feet high at the back and 10 feet at the front. Then in cutting the bevel on the sides, the pieces that are less than 8 feet long will fill in, and what is more so there will be no waste in cutting. I would recommend sliding doors of the same material 10 feet high at the front. Where it is convenient to get posts from the bush this shed would be much cheaper than where the 6 x 6 inch posts are used.

The cost of this building without labor would be less than \$100. As for location, I think that close to the horse stable would be the most con-

reached perfection in silo construction. Yet, I can honestly state, after eighteen years' experience in feeding silage, and with different kinds of silos, the one I recently erected is proving the most satisfactory.

It was built with the intent to keep out frost, for my past experience with a "tub" and other kinds of wooden silos taught me that the freezing was a great disadvantage. I do not know whether the freezing of the silage affects its feeding value or not. But I do know that it makes it very difficult to take out, and, if fed in any quantity in a frozen condition, is decidedly injurious.

To describe my silo briefly, it is simply a round concrete silo, 14 feet in diameter and 35 feet high, built with steel curbs. The difference between this and other concrete silos is that the walls are not entirely solid. They are partly hollow, having a dead-air space. It was built in the following manner: The base is sixteen inches thick, and two and one-half feet high. The inside of base is flush with the rest of silo, and forming part of silo. The curbs were then taken up, and the outer ones placed in five inches. This 11-inch wall was continued five feet. This wall, with base, making 7½ feet, is under ground, where no frost protection is required, and is solid. When the curbs were taken up, the outside one was again taken in five inches, building a wall of six inches, which was continued fifteen feet.

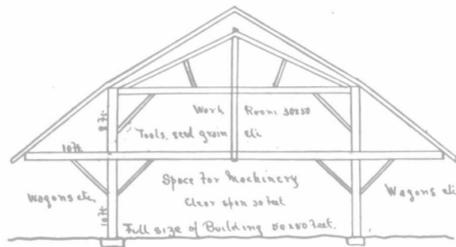
Elm strips, 3 x 1 inch, sawed nearly through every four inches, were placed around this wall, and slightly tacked with nails, until a wire was placed on outside of strips, when a handy jack wire stretcher tightened the wire until the elm hoops fitted closely. The ends of the wire were then fastened, holding the hoop in place. These hoops were placed every two and a half feet apart. Hemlock sheathing was then placed around the silo and tacked to these hoops, thus leaving a space of one inch all around the silo. An elm hoop, constructed in the same manner as those already described, was placed around almost even with the top of the eleven-inch wall. On this the outer curb was lowered. On tightening the curb, we found that, as the lumber was not all the same thickness, and the curbs not exactly true, we had not an even space of three inches, as was desired. The curbs, however, were tightened a little away from the eleven-inch wall in places, to give the desired thickness. It would have been better if the solid eleven-inch wall had been one inch thicker.

This three-inch wall of concrete was continued until it was even with the six-inch wall. They were then joined together, making one solid wall, tapering to about seven inches at the top.

The lumber, previous to being placed in position, was well soaked with water, and allowed to swell all that it would. It was placed no higher around silo than we expected we would be able to build concrete wall during that day. Strands of No. 9 soft wire were placed in outer three-inch wall about a foot apart. The gravel for the same passed through a screen previous to being used. Wire was also used in the other wall of silo. Filled stones were used in building the lower 7½-foot wall, and the top twelve and one-half foot wall. I did not consider it necessary to continue the air space any higher, as a silo of this height will easily settle eight feet if filled, and I count on feeding out more than four feet of silage before the cold weather sets in. I had no trouble with frost during cold weather of last winter. The following is estimate of cost:

| | |
|-----------------------------------|-----------------|
| To contractor, for building | \$ 95.00 |
| Wire for reinforcing | 4.50 |
| 42 barrels of cement, at \$1.35 | 56.70 |
| 700 feet hemlock, at \$15 per M. | 10.50 |
| 90 feet elm, at \$20 per M. | 1.80 |
| 50 yards gravel, at 25c. per yard | 12.50 |
| Hauling gravel | 20.00 |
| Board 4 men, 10 days | 2.00 |
| Total | \$223.00 |

The 42 barrels of cement do not include amount used in plastering.



FIGS. IV AND V—A SHED BUILT "UMBRELLA STYLE" PROVIDING TOOL-ROOM ABOVE

enough and sloping enough to take a vehicle up into the workroom for painting or repairs. The posts rest on stone or cement pillars. No floor is needed. In some cases a room or two could be finished off in the upper story for an extra hand to use now and then. This is a rather expensive kind of implement shed but substantial and convenient.

Fig. 6 shows a small rough lumber shed made of posts set in the ground, the siding nailed on horizontally direct to the posts. It is better than nothing at all and cheap, but the snow will drift through in winter.

No detailed estimate of the cost of any of these structures can be given. The cost will vary with the price of lumber in one's locality and the way he sets about building his shed. A very substantial shed, after the style of Fig. 1, with a framework of posts, sided with rough lumber and battened and roofed shanty style, large enough

venient, as you could hitch onto or unhitch without unnecessary driving. The bill of materials for this building is as follows:

- 3 pieces 6 x 6, 12 feet long for posts; 3 pieces 6 x 6, 10 feet long for posts; 3 pieces 6 x 6 8 feet long for posts; 8 pieces 2 x 8, twelve feet long for sills; 40 pieces 2 x 4, 12 feet long for strips; 12 pieces galvanized iron 6 feet long for back; 24 pieces galvanized iron 8 feet long for sides; 12 pieces galvanized iron 10 feet long for front; 24 pieces of galvanized iron 8 feet long for roof; 12 pieces galvanized iron 10 feet long for roof; 4 bags cement.

Man.

OLIVER BROWN.

Cement Silo With Hollow Wall

Farmers of the Canadian West are evincing an interest in silo construction, in order that they may provide corn silage for winter feeding of stock.

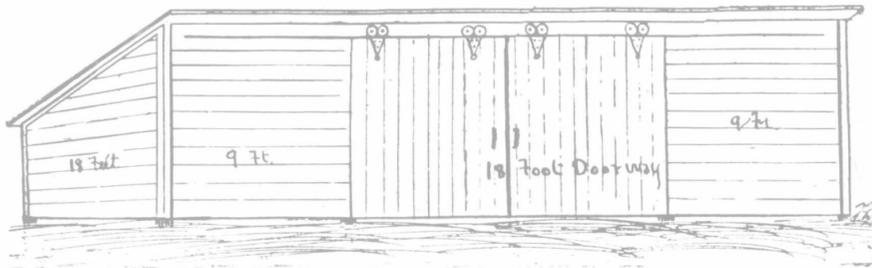


FIG. VI—THIS SHED IS BUILT OF ROUGH LUMBER, NAILED ON POSTS, AND CAN BE PUT UP AT VERY SMALL COST

to accommodate all the machinery on an average-sized farm can be built for a hundred dollars. In some localities sheds of this kind could be built for even less.

Man.

BUILDER.

Galvanized Iron Implement Shed

EDITOR FARMER'S ADVOCATE:

The implement shed on the average farm should be not less than 24 feet square to hold all the implements, and I recommend building it of galvanized iron on a wood frame and in two compartments, one 10 by 24 feet and the other 14 by 24. As it takes 14 feet for an eight-foot binder to back into I would build a shanty roof, as it takes less material and such a roof can be made almost flat. The frame may be 6 1/2 x 6 inch posts set in cement. The snow will not lie on galvanized

Opinions differ as to the most satisfactory material for construction. Cement, however, is very popular. Some have used hollow cement blocks and report satisfactory results. Others have adopted other means of construction with this valuable building material. W. B. Struthers, of Perth County, writing to London *Farmer's Advocate*, outlined how his silo was built and also gave details as to cost. Perhaps those who purpose building in the West can adopt a plan from his suggestions that will prove satisfactory in this part of the Dominion. Following is Mr. Struthers' letter:

As I built a silo during the summer of last year, different from any yet described, I thought it might be of interest, and probably of value, to some of your readers. While they may not build one like mine, yet it may suggest something even better, for I do not consider we have