A SUBSTITUTE BETTER THAN THE ARTICLE DISPLACED.

The recent rapid advances in the price of lumber should set farmers to thinking as to the best substitutes for the lumber heretofore used on the farm. They must not make the mistake of supposing that the advance in lumber is temporary, or that it is artificial. It is natural, logical and inevitable.

Here are the directions for making concrete tanks: Dig a hole for the foundation about 18 inches deep and whatever size you want to make the tank, outside measurement. Put a layer of rock about the size of one's fist in bottom of foundation, and pound down hard. Put in another layer of rock and pound down, continuing thus until within four inches of the surface of the ground, then use four inches of concrete. The concrete is made of good cement and gravel mixed—one part of cement to five parts of good clean gravel. If the gravel is coarse, make a filler by adding sand to cement.

Make a box, inside measurement same as outside measurement of tank. Use three-sided posts at each inside corner to prevent sharp corners on tank when finished; for sides and ends, use one 2 x 4 around bottom, and two 2 x 12's above, making tank 2 feet 4 inches high. Then make another frame or box, flaring, being 12 or 16 inches narrower and shorter at top than the first box, and 28 inches narrower and shorter at the bottom than the first box. Place the two boxes squarely on the foundation, one inside the other, the top edges of the two frames or boxes being the same distance apart all the way around. Then fill in between the two boxes with concrete in layers, working it gently with trowel (do not pound it in), carrying the layer around and around the tank, to prevent building one side faster than another and pushing it out of line. When space is filled to top of frames, smooth top off nicely with trowel. Make a shade of canvas or something to keep off the sun, so concrete will not set too fast, making outside hard and inside soft.

After it has stood about 48 hours, draw nails and take frames away, then give tank a "brush coat" to cover any rough places. You then have a tank that will last a lifetime,if properly made. The walls will be six or eight inches thick at top, as desired, and fourteen inches thick at the bottom of the wall. The object of this shape of wall is to resist the side pressure in freezing. The thick, flaring walls have a tendency to make the ice bulge upward instead of out. One of our tanks was over two-thirds full of water when the mercury dropped to eight degrees below zero. The water froze to the bottom, but this did not affect the tank in the least. No stock should be allowed around the tank until it has been built a week. Never let a tank wagon, when threshing, back up to a concrete or any other kind of tank. Make them drive alongside. If the tank is in a barn-lot where wagons drive up and punch it with the tongue, a two-inch plank should be attached to the tank to check the blow, as the concrete gets so hard it is liable to chip in pieces if struck by a hard instrument.

All supply, overflow and drain pipes should be put in place, and concrete filled in around them as the tank is being built. It is well, in putting up your first tank, to have someone that understands concrete work to put it in, as it is very important to have the material in the right condition, and when the job is begun it should be finished before stopping. When concrete sets, it is impossible to make new concrete stick to it. The corners of the inside box should be rounded to avoid sharp angles in inside corners of the tank. The inside box should be made with dressed side boards turned out, and outside box with the dressed side turned in. Stays or braces should be nailed on outside of outside box and inside of inside box to prevent boards from springing and making creases in sides of tank.