good-sized field stone since they make a perfect insulation against dampness and insure a dry floor. Cinders or gravel should be spread over the stones. Wet this material and tamp down thoroughly until it comes just within 6 inches of the top of the feed-passage form. This extra fill will be 10 inches deep since the finished feed passage floor level will be 10 inches above the level of the cattle walk.

Start at one end of the stable by setting on edge, parallel to the end of the stable and about 4 feet from it a 2 inch by 6 inch scantling, the length of which is equal to the width of the feed passage. Round off this scantling on the top from the centre towards each end so that the feed passage floor will be laid with a crown in order to facilitate sweeping any scattered feed into the mangers. Secure it in place by nailing it to stakes. Fill and level off with cinders or gravel up to within 5 inches of the top of scantling, then fill in the space between the scantling and the wall with 4 inches concrete, well tamped down. Before this concrete has had time to harden, put on the top coating and float off level with the top of the scantling. On completion of this strip of floor, move the scantling and stakes 4 feet farther on, repeating the process until the other end of the stable is reached. Take care to secure a gradual slope of 1 inch in 20 feet toward the end of the stable from which you wish to drain the mangers and gutters.

END PASSAGES.

Next commence laying the passage floors at the ends of the stable. When the manger shown in illustration No. 3 is adopted, the feed passage floors will be on a level 10 inches higher than the level of the cattle walks. We recommend that the end passage floors be laid to slope gradually from one level to the other to facilitate the use of floor trucks. A sloping fill will have to be made in each direction from feed passage floor to cattle walks. After being wet and well tamped down this fill should just come within 6 inches of the top of the sloping form already built across the ends of the manger, curb and gutter forms. Cut a 6 inch scantling to fit between the end stable wall and the sloping form and secure it with stakes about half-way down the slope. Lay this section of floor in the manner described above and then move the 6 inch scantling down to the lower end of the slope so that its working face will be in line with the cattle walk face of the low side of the gutter form.

CATTLE WALKS.

After the sloping end passages have set so that they will not run, remove the 6-inch scantlings and start to lay the cattle walks in the manner described for the feed passage floors. Make the surface hard and quite rough to prevent the cattle from slipping.

CATTLE STANDS.

By this time the sloping end passages and manger curbs will have become hard enough to permit of removing the curb-form sides next to the cattle stands and also the sloping forms. The curb itself serves as one form side of the cattle stand and the rest have been already built. Fill in with good-sized field stone as mentioned before. Cover the stone with cinders or gravel, wet and tamp it down till it is 6 inches below the top of the form on the gutter side and 14 inches below the top of the manger curb. This allows a fall of 1 inch from the curb to the gutter. Cut a 6 inch scantling to fit between the curb and the gutter form and lay the cattle stand floor in the same manner as described for the feed passage, taking care to maintain the 1 inch fall towards the gutter and to secure a rough, hard surface so that cattle will not slip. Slightly round the corner next the gutter.

Before commencing to lay the cattle stands the steel stall partitions and posts are put in place so that the cement can be filled in around them. Don't put a hand on or jar any part of the equipment after it is cemented in for five or six days until the concrete has time to harden fully through and through.

MANGERS.

By the time the cattle stands are complete, the feed passages will have time to harden so that they can be walked on and all the manger forms removed.

Now commence building the mangers as shown in illustration No. 3. Mould to the exact shape of the wood manger form, illustration No. 3A. The manger form templet has 2 feet 4 inches extension on each end, one of which is intended to rest on the curb and the other on the feed passage floor. In this position it gives the correct shape and level of the manger bottom. Throw in the concrete, roughly shaping it to the form of the manger and then, by drawing the templet along the manger with ends resting on curb and passage floor and at the same time by using a steel trowel, attain the correct shape and finish. Great care in this is absolutely necessary to make sure that if you have mangers they will fit snugly. The manger bottom must be hard and smooth and have the 1 inch in 20 feet fall the same as the floors. At the low end of each manger, cement in a manger outlet, which can be bought with the galvanized steel stall equipment, making sure that it is properly connected to the drain laid for that purpose. If the curbs are at all rough, plaster them smooth with cement.

GUTTERS.

If the cattle stands have become hard enough in the meantime, remove the gutter forms and

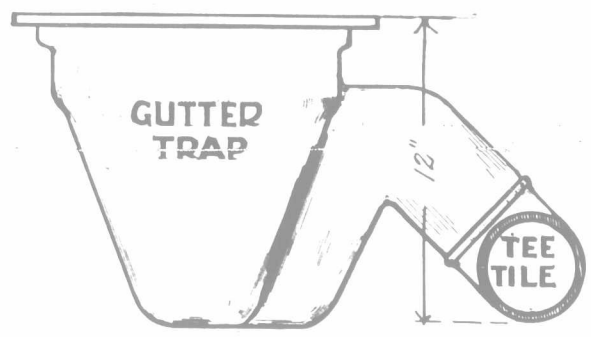


ILLUSTRATION N° 4

Showing gutter trap.

dig out enough earth so that the concrete in gutter floor will be sufficiently thick. Now concrete in the bottom and plaster the sides smooth as you go along. Take care to give the 1 inch in 20 feet fall so that the water will run off when the stable is flushed. In the lower end of each

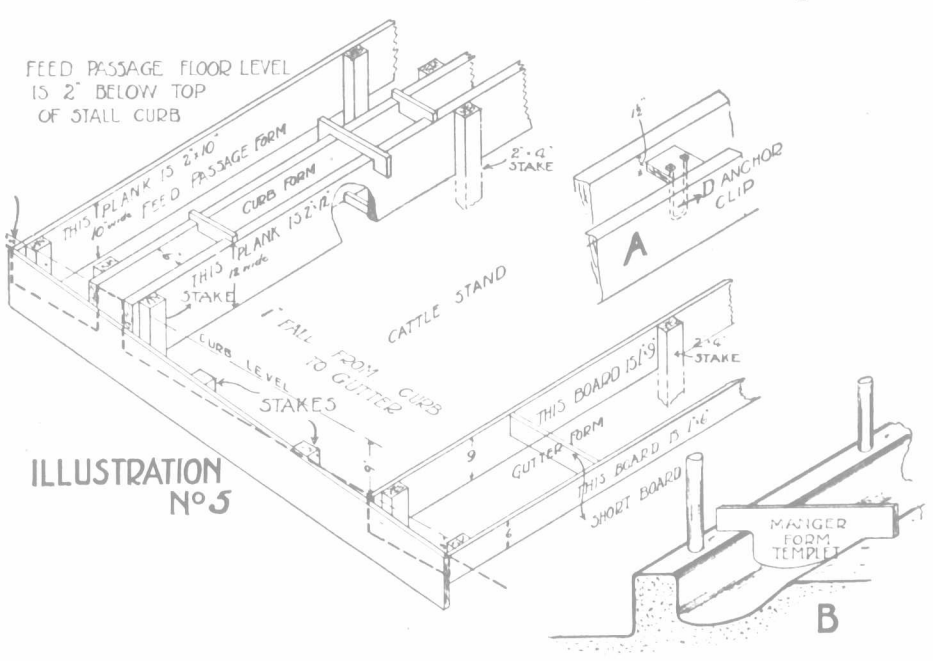


ILLUSTRATION N°5

Forms for cement work. This gives details of measurements.

gutter, cement in a gutter trap and make sure that it is properly connected to the drain. See Illustration No. 4.

The writer of this article will be very glad to give through "The Farmer's Advocate" more information about any of the points discussed above and to help farmers in any way to get ideal cement work done in their stables. By all means be careful in doing your cement work. If you are and if your steel stalls are properly installed, you will have one of the finest stables in the country. You don't build or remodel your barn more than once in a lifetime and it is worth doing well.

Wellington Co., Ont. W. G. B.

Exercising the Bull.

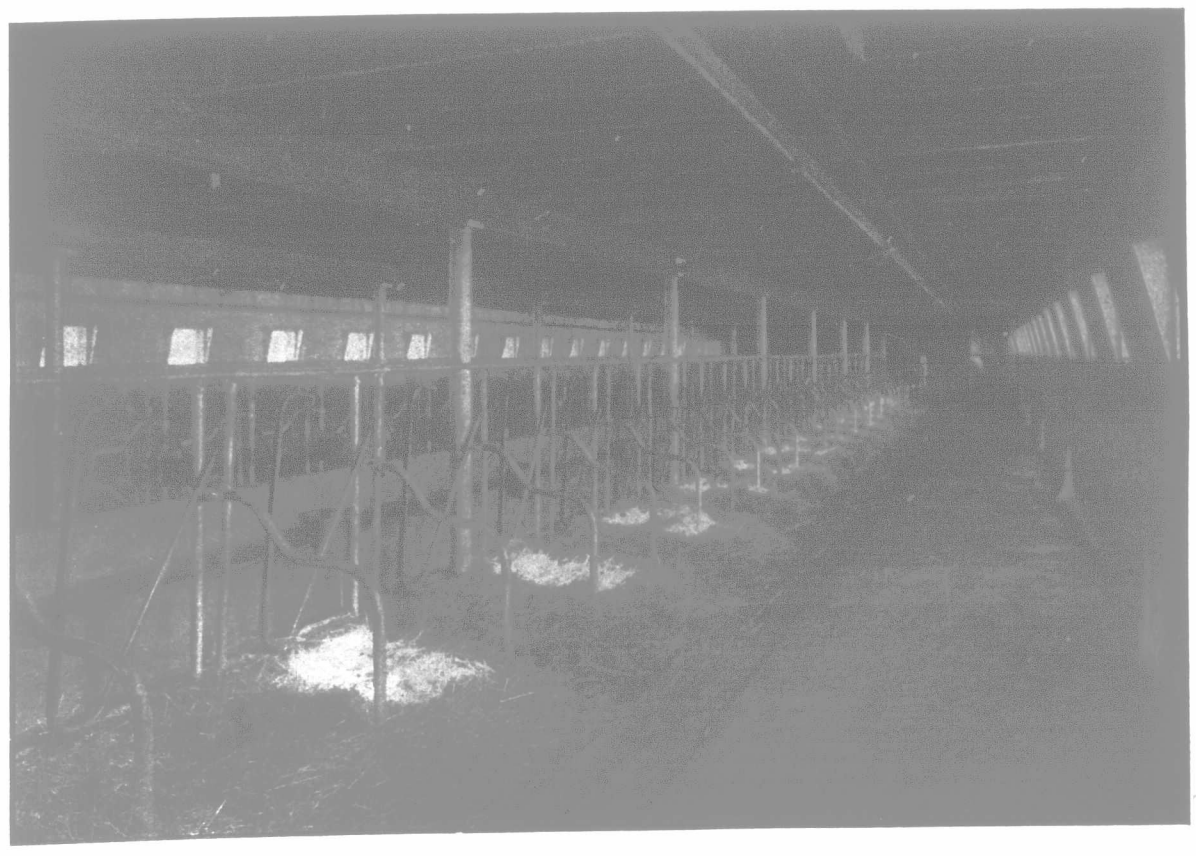
We recently read of a novel means of exercising a bull which is in use on a United States farm. The bull is kept in a large yard or pen 20 feet by 30 feet and six feet high, the whole built strong with posts close together. Running up over the side of the pen is a long stick, and hanging from the end of this by a chain is a large, square block of wood. This block hangs down near to the ground and the bull, as soon as let out into the yard, goes to work to bunt and fight the pendant block. He works hard and gets thoroughly exercised and even tired from his exertions. Some would think that such a practice would tend to make the bull ugly but the opposite is the case, he comes in gentle and ready to rest and eat. Of course, the writer holds, that, where practical, the bull should work on a tread mill or at some other suitable work. He advises strongly against running the bull with the cows in the field.

Summer Care of the Ram.

Rams are usually bought in the fall just prior to the breeding season. A ram, newly purchased, should be kept apart from other sheep and dipped before or immediately after arrival upon the farm. This is easily performed by mixing a few gallons of dip and thoroughly soaking the animal to the skin whilst standing. This method is inexpensive and effective.

Overgrown toes are frequently a cause of a ram's inactivity. It is imperative, therefore, that the feet should be trimmed. This is a simple operation, consisting of placing the animal on his rump with the head in front of the operator's legs, as in shearing, and cutting the hooves with a sharp jack-knife so that they are level and the toes are short. If this is neglected, lameness often results. Three minutes once in six weeks is sufficient to keep the feet in proper condition. Care should also be taken to prevent the caking of manure around the vent.

Sufficient pasture, salt, water and care of feet is all the attention required during the summer.



A Good Stable Job.

A sunny, sanitary, clean and comfortable finished stable.