

A Cheap Cement Tank.

Editor "The Farmer's Advocate":

I noticed an inquiry in "The Farmer's Advocate" of Jan. 17th re cement tank leaking. The only way to stop a cement-concrete tank from leaking is to plaster it on the inside well; it does not require a heavy coat. Mix it equal parts sand and cement, and put on as little as you can, but be sure you have covered all the surface. The person asking the question said he built the walls eighteen inches thick. He simply wasted about two-thirds of the concrete. Six or eight inches would have been quite sufficient. I built a concrete tank in the fall of 1905. Not a very large one—4 ft. by 5 ft. outside, and 4 ft. deep. The walls are only 6 inches thick; one side, against the stone wall, is only 4 inches. I plastered it well as stated above, and in two weeks I filled it with water, and it did not leak a particle, nor has it ever leaked since; I used it last winter like that. Then, last summer I plastered it on the outside, just to make it look a little better.

In building a larger tank, the walls might be made a little heavier, say 8 or 9 inches in the bottom, finishing with 6. Putting a bit of chain or a small bar of iron bent at right angles around the corners, say 18 inches apart, as you raise, will strengthen them, and possibly prevent cracking.

I noticed another man giving his experience with wooden tanks. I would say away with the wooden tank and build cement, as it can be built for one-half the cost, and lasts much longer. In this section farmers are building cement troughs at the well, as well as large tanks. I know of several large tanks built with the silo curbs. I think they are standing well, whether indoors or out. My tank, referred to above, cost me just \$3.50, not counting my own labor. I built it in a day, except the plastering. I inquired the cost of a wooden tank about the same capacity, and the price was \$8. In addition to the tank proper, I raised the bottom up to a level with the water basins (about 3 feet) with stone and concrete, so that you see there was a good deal of material below the tank, and all included at the small cost of \$3.50. In conclusion, I would only repeat what I have said about the plastering on the inside, as the concrete will not hold water, if built two feet thick, unless it is plastered. I would not be without "The Farmer's Advocate" if it cost three times as much.

Huron Co., Ont.

SAM J. PYM.

Likes Rotted Manure for Top Dressing.

Editor "The Farmer's Advocate":

I saw in "The Farmer's Advocate" of Jan. 10th an article on the care of manure, raising the question, whether it was best to spread in winter, leave it in the yard, or put in piles? My observation in the matter is this. Manure spread in winter upon crust or snow must leach away to some extent, especially if there be much rain; if in pile, it has a chance to heat and destroy bad weed seeds which might be in the hay or grain. Some say it does not have a chance to heat, but if put up in proper shape it will heat in good time to top-dress for spring crop. I generally allow about two loads of horse manure to be placed in the center of pile, and then unload from all sides, placing more horse manure in the pile after, if seen fit. I have had sixty loads, all told, in one pile, and when spring work was ready, twenty-five loads was all that was left of the sixty loads. When the disk harrow was set at work, it was a pleasure to see how the well-rotted manure, distributed with a manure spreader, worked in with the clay loam.

Lanark Co., Ont.

D. A.

An Ontario Co. Basement Barn.

Editor "The Farmer's Advocate":

I am almost a daily reader of your valuable paper, and I have read much in it about basement stables. I built a large barn in 1904, size 60 by 100 feet. The walls are of stone, 10 feet high, on a trench 3 feet under ground filled with stone, making a wall of 13 feet of stone. The walls are 22 inches thick, and a good coat of plaster put on the inside. We put 23 three-inch tiles through the wall near the top, and divided them all around. These keep the stable well ventilated. In a very cold time we have to close up some of them on the north and west of the stable. I find that the air is much more pure than in a stable where there are two openings to the roof, and the stable is only about half the size of mine. I might say that I would not wish for any better. I put in large windows, the top part of each is hung in the center, and we can open them any time. The stable floor is all of cement, but in the main horse stalls we planked under the horses. For the horses' mangers we raised the bottom about 8 inches, for the cattle 6 inches, and behind the cattle we left a drop of 6 inches, with no trench. We have the floor behind the cattle and horses sloping towards the

heels, about 2 inches in 7 feet, and that keeps the passage clean. We also have the floor behind sloping towards the outside doors, 1½ inches to 40 feet, and find it lots, if not too much. We have water basins in for 22 head of cattle, and find it is a good thing; the cattle can drink whenever they like. I keep both horses and cattle in this stable, with no closed center walls, and so far have not had a vet. to see a sick cow or horse.

GEO. R. A. MILLER.

Ontario Co., Ont.

Twenty-share Beef Ring.

Editor "The Farmer's Advocate":

Would you please publish the chart for a 20-share beef ring that appeared in "The Farmer's Advocate" last March or April, in which every member gets a boil, a roast, and a slice of steak. Please give explanation in full of how it works. Does the man that puts in a stall-fed beef in the spring get allowed any more per pound than those who put in grass cattle? How much per head is the butcher allowed for killing and cutting up?

Bruce Co., Ont.

WESLEY WARD.

[Note.—We reproduce the chart and table referred to. We have no other information that

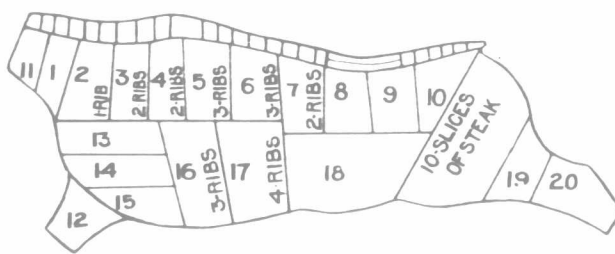


Chart for 20-share Beef Ring.

would be helpful as to how it works out in practice, but have been assured that it proves satisfactory. Our impression is that no difference is allowed in favor of a stall-fed beast over a grass-fed one. The allowance to the butcher for his work would, we presume, be a matter of agreement between him and the ring. Will some one who has experience with beef rings give our readers the benefit of their knowledge through our columns.—Editor.]

The Sorrows of the Mouse.

Editor "The Farmer's Advocate":

In response to the invitation to send contributions on the handling of manure, I might say I prefer drawing it direct from the stable to the field and laying it down in heaps a rod apart each way. It has the advantage over putting it in a manure shed of requiring handling but once. If manure is left in the shed till summer, it has to be drawn at a busier time than now. The trouble of hitching up a team every day or every alternate day will not more than counterbalance the work of wheeling out the manure.

I am convinced there is less waste incurred by laying it in heaps than by spreading as applied. The heaps are very soon frozen solid, after which no gases can escape into the air nor liquid soak into the ground. In case of a thaw, the heaps will remain frozen, unless the mild spell is unusually prolonged. Only once this winter have the heaps been thawed sufficiently to allow of being spread, and even then the frost was not entirely out. From the appearance of the water in the hollows, I would judge there has been practically no waste from soakage. If spread as soon as the frost is out in the spring, the manure can be shaken out without any trouble.

Spreading it direct from the sleigh has some drawbacks. After a snowfall, it must be almost impossible to tell where one has come to the previous spreading. There must be more or less waste at every thaw. I remember spreading some freshly-drawn manure on about six inches of snow in March, and the streams of water that ran over and away from the field were the color of good strong coffee. If the manure had been laid down in heaps, I am convinced there would not have been such waste.

I think, Mr. Editor, you are getting the stable question pretty well ventilated, whether the stables themselves will be benefited or not.

I noticed in a late issue of your valuable paper a pathetic tale regarding the sad fate which befell an unfortunate mouse which had been immured in a glass bottle. It seems to me, if this most magnanimous mouse had been placed in a straw bottle of the same dimensions in every respect as the glass one, and exposed to our zero breezes, his death would have been a much more speedy one, and less sad.

With regard to the question of moisture, I would like to add, no one has any cause to complain of dampness on the ceiling of the stables during very severe weather, unless his stable is exceptionally close. It is during a mild spell that the roists and lofting will be noticed dripping

with water. Why is this? The explanation seems simple. During severe weather the openings are sufficient to carry away the moisture as fast as it is breathed out by the stock. But when the cold moderates the moisture cannot get out, and the air becomes so full of moisture that it can contain no more, which then condenses on the most available points. Should the walls be blamed for this state of things? Certainly not. Would a wooden wall be the remedy? No, it would not. It is not a question of walls at all. The walls do not generate moisture, nor do they admit it. It comes from the cattle's breath, and no number of plies of boarding, be the walls never so hollow, will affect this condition in the slightest degree, other things being equal.

Middlesex Co., Ont.

ADAM BATY.

[Note.—The phrase, "other things being equal," contains the suggestive kernel of thought. With walls of equal tightness and conductivity, the internal moisture and temperature must be the same in all cases; but if we can, by use of several plies of paper or boards, secure a wall that will lose less heat by conduction than stone or concrete, we can allow just that much freer ventilation (while maintaining a given temperature), and the more ventilation we allow, the drier will our stable atmosphere be.—Editor.]

The Latest Ventilation.

Editor "The Farmer's Advocate":

Although but a recent subscriber of "The Farmer's Advocate," I have read with considerable interest the discussion on stable ventilation. In your issue of January 17th you give an account of Mr. Baty's idea, which is pretty nearly what I had thought out.

My idea was to have a ventilator, say a foot square, running overhead of feed passage from outside to outside of two walls, but instead of covering it full length with lumber, let it extend from outside of wall to say a foot or so inside, made of matched lumber; then merely have a frame extending to other wall, and cover say one-third of the length from each wall with good heavy jute bagging or rice sacking, and cover the center third with a coarse, open jute, such as cheap potato bags are made of. By covering, I mean to put the jute on the two sides and bottom of frame of ventilator. Now, have a slide in ventilator at each end near the wall, and say ventilator runs from north to south across the stable, and a cold north wind is blowing open slide in north end but partly, and south end full, and I think you would be able to regulate ventilation as desired. The object in having heavy jute near the ends is to temper the cold air before entering, or rather distributing over the stable, and I have the idea that the foul moist air will penetrate the jute and be driven out the end opposite to which wind is blowing in. On a mild or calm day both ends of ventilator could be left full open. This, I think, is cheaper than any ventilator I have yet read of. As to windows, I think many of them a good thing, as we all know plenty of light is good for stock and a destroyer of disease germs; but the idea of opening windows much, which let in considerable draft, I don't like. If we could cover them outside with jute, and still have light, we could ventilate very well. I have, however, used white cotton over windows, and find it works very well, but is not very durable; yet, for all it costs to cover the windows you open with 5c. cotton, it will well repay one, as it lets in no wind and gives an excellent ventilation. In putting on cotton, it would be better to use a strip of cloth or something under tacks to keep wind from tearing it where tacked on. I am using cotton on my hen-house, and find it gives good light and ventilation, and is almost as warm as glass. A good storm door can be made by covering a light frame with cotton.

You might, Mr. Editor, express your opinion on this system of ventilation. I know your opinion on the bush-lot, and it differs from mine, for I am holding about one hundred acres, and if fenced it would get so thick you could not get into it to fall or get out a tree; and if, say, ten acres were exempt from taxes, they would have to raise it on the other part of the bush, or some other property.

Simcoe Co., Ont.

A. LUMMIS.

[Note.—The ventilation system suggested seems quite feasible, but the proof of the ventilator is in the working of it. When it has been tried, let us hear how it turns out. The idea of putting canvas curtains over opened windows is excellent. The correctness of the principle has been amply demonstrated in poultry houses. Regarding the wood-lot, Mr. Lummis' opinion is probably not so divergent from ours, after all. If his woodland is already too thick, pasturing for a time may do no harm; but for most of our thinned Ontario woodland grazing hastens its destruction, and fencing out stock is the prime means of restoration. A tax exemption by law could not do Mr. Lummis any harm, though in his particular case it might not do any good. That does not alter the fact that such a law would have a beneficial tendency in ninety-nine cases out of a hundred.—Editor.]