Watering and Water Tanks.

Editor "The Farmer's Advocate":

In reply to your queries as to watering stock in winter, I may say that two years ago I put water basins in one cattle stable (for about 30 cattle), at a cost of about $45. From my experience so far, I do not think I ever made a more profitable investment, although certain disadvantages attach to this system. The disadvantages might be enumerated as follows: (1) The risk of not giving the cattle sufficient exercise; (2) the risk of the water pipes freezing in the stable; (3) uncleanliness caused by the cattle spilling the water into the mangers. With a little care, all these disadvantages may be successfully minimized. The advantages I would state thus: (1) A great saving of time; (2) warmer water for the cattle to drink, as a rule; (3) avoidance of turning cows out on stormy days; (4) ease in teaching calves to drink; (5) letting the cattle drink when they want it, and as often as they want it.

There are various schemes of stable watering, more or less good. The best is that which is cleanest. Some farmers have lids on the basins, which the cows lift when they want to drink. My basins are fastened in the partitions between the stalls. I find them clean enough, except in the case of some cows that will lap continually, and thus spill the water.

In your editorial you speak of having a trough in a protected place, and pumping fresh water into it daily. This, I think, is an excellent plan for young stock, though they will be drinking ice water almost invariably, owing to formation of ice in the trough, and the virtual impossibility of being on hand to pump fresh water just when the cattle want to drink. However, this is not a very important matter. I water about a dozen yearlings at a cement trough in the barnyard, which is covered with a lid most of the time. Notwithstanding its being in a protected place and being covered, the water in it freezes considerably in ordinarily cold winter weather. I do not think it a bad plan to turn cattle out regularly, although there are days—for example, when it is raining, or when a wet snow is falling—when it would be both healthful and convenient to water them inside.

As far as stable temperature is concerned, I aim to keep it only just above the freezing-point. Ordinarily, one can thus get good ventilation, but in extremely cold weather, with solid-stone walls, it is rather difficult to get sufficient ventilation without having the temperature fall below the freezing-point. Hence the desirability of having a non-conducting wall.

Your warning as to pampering stock is a timely one, and I have often thought that if one had a large, open shed, provided with racks for hay, and with a water-trough, and with access to a straw stack, and if the shed could be roughly closed in when the weather is stormy—that, with such accommodation, young, thrifty stock would be in almost ideal winter quarters. But, of course, there is the difficulty in feeding roots, and more or less fighting for the feed, unless the cattle are dehorned. On the whole, considering the convenience of feeding and the like, the stable is to be preferred, and, if farmers would be a little more careful to provide light, fresh air and exercise, many of the admitted disadvantages and dangers of stabling would be avoided.

Referring to Mr. Lummis' scheme for ventilating stables, it might be pointed out that the canvas would likely soon be rendered impervious to air by a heavy deposit of moisture or hoarfrost upon it.

As for cement tanks, I built one three years ago, 3½ feet deep and 9 feet in diameter, at very small cost, and it has been entirely satisfactory ever since. This tank is outside any building and partly in the ground, partly banked up with earth. I use it as a reservoir only, and have a float in it, which, attached to a stick that comes up through the cover, tells me how much water there is in it. I have also a cement water trough, two years old, that has given complete satisfaction. Wherever the foundation is good, cement is decidedly "the thing" for troughs and tanks."

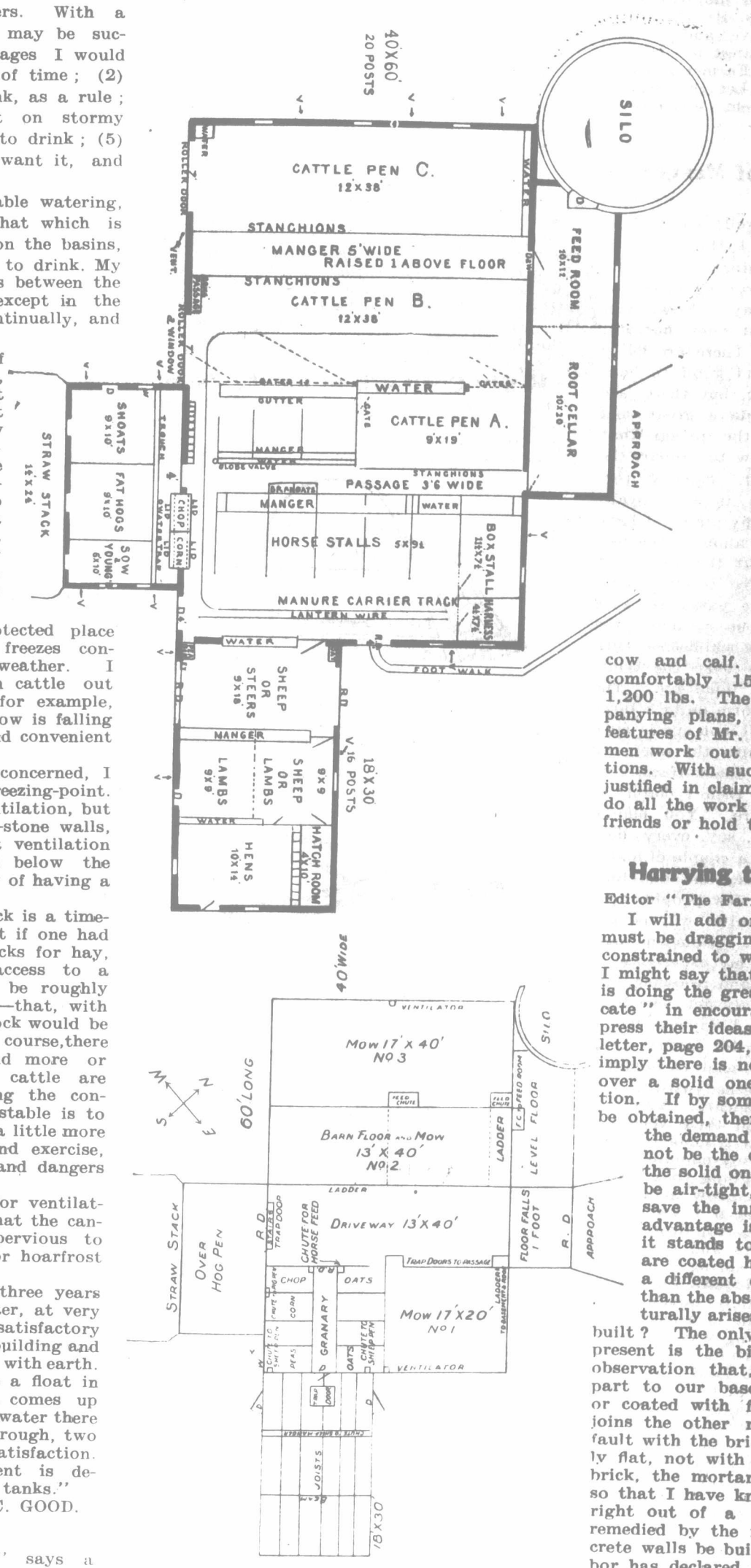
Brant Co., Ont. W. C. GOOD.

"Horses in Stock-yards market," says a Chicago exchange, "are selling at sky-high prices. It is a pronounced case of scarcity, despite prediction for several years past that colt crops were being raised that eventually would knock a large hole in the bottom of the market. Even that much-heralded hoodoo of His Equine Majesty, the chug wagon, has failed to make good in putting him out of business."

THE FARM.

A General-purpose Barn.

Most of the barns illustrated of late in "The Farmer's Advocate" have been specially used for dairy cattle. We have been asked to publish that of Mr. W. A. Clarke, West Middlesex, designed and used chiefly for beef cattle, but containing features well adapted to dairying or general purposes on a 100 to 200 acre farm. As it stands, it appears to be the product of sixteen years' evolution, new ideas being incorporated from time to time as improvements were suggested by experience. The silo and root-house are yet to



be erected. Our engravers have not shown the carriage, implement and ice house, 20 x 35 feet, with 14-foot posts, situated some 90 feet in a north-easterly direction from the main barn, and to the left of the gravelled driveway passing the residence, "Maple Villa," which faces the King's highway.

The compartment marked for sheep on plan is used as a steer pen, and is a handy place to throw the horse manure; making bedding for the cattle if for any reason it is not convenient to put into the yard where cattle, horse and hog manure is usually mixed, unless taken direct to the fields. The sheep and hen house is 18 x 30 feet, with 16-foot posts. The hogpen, 23 x 20 feet, 8 feet high, is under the straw compartment, 19 feet high, and the straw stack in the rear appears to be an ideal feature, very convenient for supplying bedding to all the stock. In the 40 x 60 building, this season there have been comfortably housed 32 steers, 5 cows, 6 horses and a pen of calves. There is also accommodation for a couple of colts, 20 head of swine, 20 sheep and 50 hens.

All the cattle are fed in stanchions, but are, with the exception of the cows, only confined when feeding. Water is not kept before them. A row can be fastened or loosened at once with a lever.

All the floors, except for implements, sheep and hens, which are of earth, are cemented and laid level, except cow stalls, no manure running away. Seven-foot roller doors in cattle, sheep (or steer) and hog pens, facilitate rapid cleaning, with two-horse wagon or sleigh, daily, except Sundays, and removal direct to fields. Swing or roller gates take the place of rigid, dark partitions. Water is pumped by an 8-foot windmill on 40-foot steel tower to supply tank, which feeds six troughs inside and two outside, kept open all winter. Ventilation is obtained by tiles through walls, chutes, trapdoors and sliding windows. Grain for market or chopping is dropped on wagon or sleigh at end of granary passage; returning, the load is driven on barn floor above and chop is dumped into granary bins which feed into double chop bins in stables or hogpens. Pen "A" holds 9 calves or 8 yearlings; or a gate 9 feet can be hung to make a box stall for cow and calf. The pens "B" and "C" hold comfortably 15 steers, loose, each of 1,000 to 1,200 lbs. The foregoing notes with the accompanying plans, will give our readers the salient features of Mr. Clarke's stabling. In most cases men work out details to suit their own conditions. With such a handy barn the owner feels justified in claiming that one man, if need be, can do all the work and still have time to talk to his friends or hold the baby.

Harrying the Editors to the Grave.

Editor "The Farmer's Advocate":

I will add one more hand to the many that must be dragging you to an early grave. I feel constrained to write simply to relieve my feelings. I might say that no other paper that I have seen is doing the great work of "The Farmer's Advocate" in encouraging farmers and others to express their ideas suitably. I see by Mr. Baty's letter, page 204, issue Feb. 7th, that he seems to imply there is no advantage with a hollow wall over a solid one, provided there is fair ventilation. If by some system perfect ventilation could be obtained, then it is true there would not be the demand for hollow walls, as there would not be the dampness to adhere and freeze to the solid ones. Now, it is true, if the walls be air-tight, no number of air-spaces would save the inmates from suffocation, but the advantage is they keep the stable drier, as it stands to reason that solid walls which are coated half an inch with frost must have a different effect on the atmosphere inside than the absolutely dry wall. The question naturally arises, How can a hollow wall best be built? The only hollow wall in this district at present is the big brick. And I can say from observation that, while the doors and concrete part to our basement are nearly always damp or coated with frost, the brick, save where it joins the other material, is always dry. The fault with the brick is that they are made perfectly flat, not with a groove on the top like small brick, the mortar, accordingly, having no hold, so that I have known a horse to have kicked one right out of a wall. This should be easily remedied by the makers. But why cannot concrete walls be built hollow? An ingenious neighbor has declared his intention of building a wall for his henhouse by filling up the center with empty salmon and tomato cans. But as it is too late to induce the Government to subsidize the canning industry sufficiently to provide cans to go around, we must think of some other plan. Others talk of using tile, laying row after row on top of one another, but this would take a great many tile. Why cannot one build a wall by