

Stable Floors and Stanchions.

Editor "The Farmer's Advocate":

In answer to the inquiries of G. S. and your solicitation for plans of cow stables and floors, I will freely give your readers my most approved plan, as I have tried a few and seen many. I might say your suggestion as to raising the feed alley to the top of the mangers has too many disadvantages and is too costly also for most ordinary farmers, and there is nothing much gained but an endless running up and down steps to get to feeding, and where one is loaded with heavy roots that are seldom if ever brought in from the end or by silo cart it would be a nuisance, and in many stables one's head and fork handle would be striking the joists, as the back of the manger should be two feet high, at least, with a slant of six inches to the foot, making the manger two feet wide in the bottom and three feet wide at the top, then the cows can always reach their feed, and not much ever gets thrown out. If any wider than this at the bottom they cannot reach their chop or ensilage, resulting in a dirty, musty, unappetizing manger. The raised feed alley would make the cleaning of the mangers a backaching job, and this is one of the essential daily jobs that must be done to get the best results. If the old-fashioned stanchion is used, make the top rails out of 2 x 6 black ash or other similar wood, and the bottom sills or front to the manger of 2 x 8 plank. Cut your upright stanchions five feet long, out of 2 x 4 basswood (or ash will do). Beginning at the wall, give the first cow twenty inches to the stationary upright; leave space of eight inches for ordinary cows; fasten the bottom of next upright with $\frac{1}{2}$ -inch bolt through both planks and the center of the 2 x 4, leaving the top loose between the two 2 x 6 head pieces and sticking above them three inches, with a slanting end, so that the long loop or staple will slip up the slant and drop over the stanchion. Care should be taken to have the two 2 x 6 head pieces level on top, so the loops will staple on them even. The next should be a space of nine inches at the top and closed at the bottom within an inch, so there can be no feed rooted out that way. This is easily done by having a few eight-inch planks ripped from opposite corners after being cut 5 feet long. I have a nice little labor-saving contrivance of my own for fastening the cows when let in, by running a common fence wire through staples along the 2 x 6 head pieces to each of the loose upright stanchions, and all fastened to an upright lever at the cross alley, and by a single jerk fifteen to twenty cows are fastened. This will be appreciated very much when the cows are very full and wet, as we milk in the stable summer and winter. The distance from one stationary stanchion to the other is three feet, and no partitions, as I consider them of no use only to take up room and make the cows back up to get off the platform, and are in the way at milking time. I have discarded them forever. The standing platform I prefer being plank, as a cement floor is very hard on the knees and hocks of cows, and does not hold the bedding to its place like plank. In a 40-ft. string, I like the length of platform to be 5 ft. 8 in. at the farthest end and 4 ft. 8 in. at the other. This I find to be as near right for an ordinary herd as can be made. The drop is 10 inches, with a trench 24 inches wide and 2 inches deep at the back, with driveway as wide as possible. This width and depth will hold three days' droppings, and one can clean it when the cows are in without breaking one's back or the cows' legs getting down in an old-fashioned, deep, narrow gutter. With this there is no necessity for any fall from one end to the other, as by using a generous amount of bedding it will take up most of the liquid. The whole floor should be finished with a wooden trowel or float, and not smoothed with steel trowel, making it dangerous for man and beast. I have never figured the cost of the above, but know it is one-quarter cheaper than a raised alley and turned posts, with stalls and deep, narrow gutter, which are an every-day nuisance.

G. H. C.

Elgin Co., Ont.

[Note.—Our correspondent has mistaken our suggestion about letting the edge of the raised feed-alley floor form the front of the manger. There is no occasion for having this more than six or, at most, ten inches high. Of course it is understood that there would be either a water-trough or a horizontal scantling directly over the manger front to keep the cattle back.—Editor.]

Besides all its other merits, the maple is Canada's national tree. There should be one or more around every home.

A Barn with Manure Cellar in Basement.

Our readers will have noticed in the Christmas number of "The Farmer's Advocate" a description of Annandale Farm, in the Annapolis Valley of Nova Scotia. The semicircular roof of the barn is one feature which will serve to arouse the reader's curiosity as to its interior economy. In the article on the farm was a paragraph describing the layout of the barn, which is now more graphically depicted in the accompanying engravings. It will be noticed that the stables are on the first floor, the portion of

thought that such a cellar would cause a bad atmosphere in a dairy stable above it, but, with a tight stable floor and the use of sufficient absorbents, it is claimed that no serious trouble is experienced.

We are not expressing any opinion about the manure cellar, and must confess we have found some difficulty in ridding our editorial minds of a prejudice against it; nevertheless, it is worth while for each one to inquire just how much of his objection may be reasonable and how much may be prejudice. At any rate, the plan is presented for the consideration and criticism of our readers, and we shall be pleased to give space to intelligent opinions, either favorable or adverse.

One View on the Stable Question.

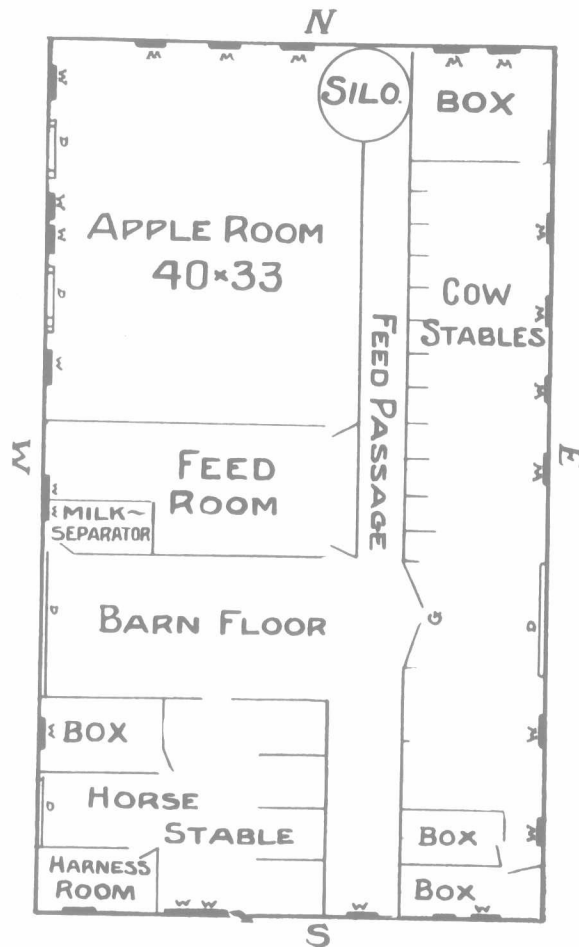
Editor "The Farmer's Advocate":

In an editorial in the issue for Nov. 29th, "The Farmer's Advocate" opens for discussion a subject on which views may be expected to vary greatly. It is a subject which touches one of the most serious problems confronting us in connection with the winter stabling of live stock; and, therefore, if the points raised serve to provoke thought and interchange of opinion, they will have accomplished a good purpose.

The characterization of the basement stable given will no doubt impress many as being somewhat overdrawn to be representative of average conditions. There are at least some such stables in which the features of dampness and chill are by no means so pronounced as to be particularly noticeable. On the other hand, there are many stables in which the conditions described prevail to a very objectionable extent. Where ventilation is lacking or inefficient, the stone-basement stable often becomes decidedly damp and uncomfortable. Even with the best of ventilation, it is probably true that it will remain more subject to these conditions than another with wooden walls. Nevertheless, ventilation helps to such a degree in keeping a stable dry, fresh and pure, that some provision should be made for procuring it, whatever the material of the walls may be. The air of a stable full of cattle is being continually furnished with a large amount of moisture, which, in the case of the stone wall, is most quickly made apparent by its condensation, and in either case should be carried away.

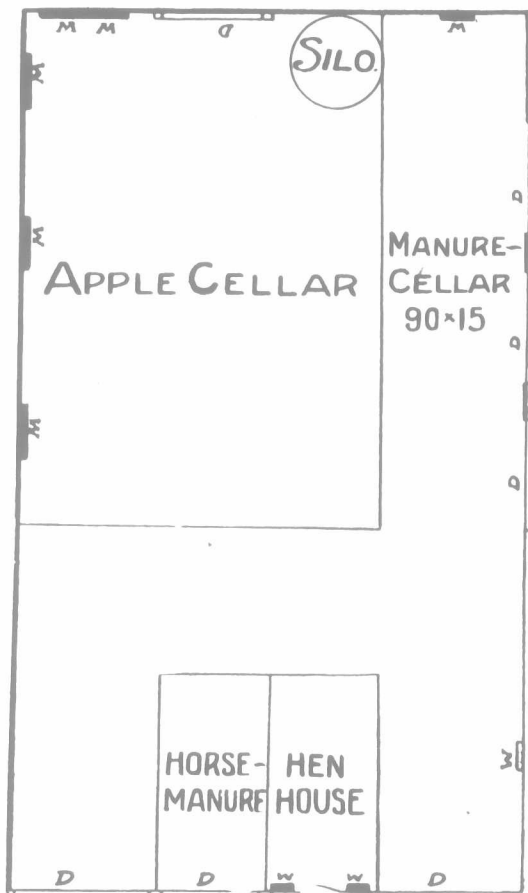
In recommending wooden walls for stables, "The Farmer's Advocate" is merely extending to the main stables the application of facts which are already generally recognized and admitted, as applied to stables for poultry, hogs, sheep, and even horses; and since practice, as well as theory, pronounces them to be preferable for these animals, it is reasonable to suppose that we should also find them better for cattle. Even granting that good ventilation would obviate much of the difficulty with stone walls, the fact remains that good-working ventilation systems are seldom to be met with. Many different plans have been devised, but almost all of them have proved to be lacking in some one or other essential, so that as yet none have been very extensively adopted. The King system, to be seen in operation at the O. A. C. dairy stables, has cheapness, simplicity and a good measure of efficiency to commend it. The cowl and sub-earth duct, which tempers the air by conveying it for some distance under the ground before distributing it through the stable, also overcomes some of the worst defects of other systems, but is expensive. The trouble with almost any ventilation system which has yet been tried, is that it sooner or later—often very soon—requires continual attention to keep it in working order, and the ordinary result is that it finally falls into disuse.

With perfect ventilation still unrealized, there is so much the greater reason for having the other conditions favoring dry and comfortable stables as nearly as possible right. To this end, some have thought of constructing cement walls in such a way as to leave a space in the wall for air, thereby securing the advantage of insulation such as is obtained in cement-block houses. Others have sheeted the inside of the walls with boards, thus acknowledging the advantage of wood over stone. In this case a part of the cost of a wooden wall has been added to the initial cost of the masonry. Experience with wood in separate stables has, in plenty of instances, proved that it is a thoroughly satisfactory material; and if, as "The Farmer's Advocate" affirms, there is no practical difficulty in the way of framing a barn from a low foundation, instead of from an eight-foot wall, this is a suggestion which should be well worthy of thought. By boarding up each side of the wall with matched lumber over building paper, and stripping on the outside, the stable can be made as warm as is desirable. Such a wall, owing to the size of the timbers required to support the superstructure, would almost certainly cost more than stone, especially if the stone is available on the farm; but if it is possible by this means to secure a stable which, with reasonable ventilation will be dry and warm, as we are confident it would be, then it simply remains for



First-floor Plan of Barn on Annandale Farm.

the basement beneath being used as a manure cellar. This is the common arrangement in the Maritime-province barns, and while most Ontario men shake their heads in disparagement, the plan has some advantages. The stable is drier, more sanitary and more easily ventilated than if located in the basement. The stables are easily



Basement Plan of barn on Annandale Farm.

cleaned by lifting trapdoors along the gutter and shoving the manure down. With a cement floor, the manure is preserved with a minimum of waste, and may be drawn out at any time desired. At Annandale Farm pigs are kept to root the manure over and tramp it down, and an important point is made of saving every drop of both liquid and solid manure. It might be