

matters, but they are spouts that carry away the profits which have cost not a little toil and self-denial.

There is a worse form of waste still—the waste resulting from a neglect to provide the farmer's house with every possible device for saving his wife and daughters from the drudgery of their work. The family doctor knows that many a woman is broken down in the years when she should be in the glory of her influence and usefulness through the discharge, in an unnecessarily burdensome manner, of work that might have been done in a way that would have made it little harder than a pleasant recreation. Water is carried that might as well run through a pipe; bread is kneaded that should be prepared in a "mixer"; backs are wearied over the back-breaking washboard, while efficient washing machines and wringers may be had at a reasonable outlay. Tables and furniture generally are "lugged" that should run lightly on casters, and so on. These are channels of frightful waste to the farmer, and result in losses to him, the least of which is the hole in his pocketbook. There are scores of devices for saving time and drudgery which have long since passed the experimental stage, and which the farmer cannot afford to neglect.

I have mentioned only a few sources of waste. Let each one face the question himself and stop the leaks. To fail to do so is to act like the man who enlarges the hole in his pocket or who attempts to market his grain in bags with rents in them.

Wentworth Co., Ont.

Basement Stable Equipment.

Editor "The Farmer's Advocate":

Now that the question, "Is the basement stable a success?" has been pretty well discussed (and the general opinion seems to be that if properly built, with air space in walls and well ventilated, that it is), I may be permitted to ask the question, "How should the basement stable be equipped, in order that the cattle may be fed, watered and bedded, and the manure drawn out and placed on the field with the least amount of labor, and at the same time get the best results from the cattle?" For a person following mixed farming, I favor the following plan: The barn should be large enough to hold generally all the crop that can be grown on farm, and should have basement stable underneath, properly built walls, with air space, and at least nine feet high and well ventilated. The doors of stable should be wide enough for a team and sleigh, or wagon, to pass through, and cattle kept in pens, with gates between each, so arranged that team and sleigh or wagon could be driven to all parts of stable to clean out and draw manure directly out and spread on field.

The horse stable should be placed in one end of basement, horses in stalls, and so arranged that manure could be conveniently carried over and placed in cattle pens, thus using it as an absorbent and preventing it from freezing.

One of the strongest arguments in favor of the basement stable is that, with the aid of gravity, the farmer can place the food in front of his cattle with the least amount of labor. The next question then is how to remove that food, in the shape of manure, with the least amount of labor, and at the most convenient time, which is undoubtedly in winter, and place it on the field in the best condition possible. The plan I have outlined will take more straw, but the person following mixed farming usually has enough, and in this part of the country there is usually dozens of stacks of pea-straw burned every year, that if used for bedding would materially add to the fertility of the farm.

The drawing out of manure in summer is one of the biggest contracts of the farm. With us we never could place it all on our root ground, and though we did not approve of summer-fallowing, we either had to leave a field without crop for the manure, or else leave it lying around until the crops were harvested, a very wasteful method, and one that we did not try more than once.

The fact that numerous farmers throughout Ontario have recently built or intend building basement stables, with narrow doors and stalls for cattle, with the intention of dumping the manure out in the barnyard to freeze, to be drawn out again in the busy summer, or else make a trip with a one-horse sled every day, stormy or otherwise, to the field, leads me to conclude that they do not approve of the plan I have outlined, or else it has not been presented to them in such a way that I think a discussion of it through "The Farmer's Advocate" would be quite as profitable as your recent popular question, "Is the basement a success?"

Simcoe Co., Ont.

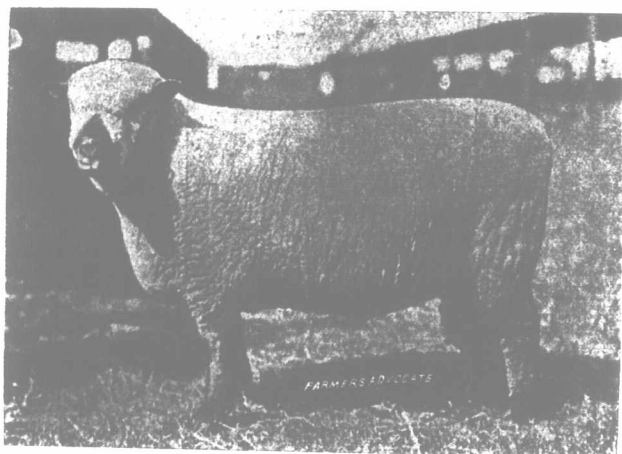
FLOES FARMER

As the farmers of this country become educated more and more, the higher will become the standard of farm life, the greater the reward, the more numerous the comforts and luxuries, and the more attractive the occupation for the young who are seeking a life of independence and a home for their children.

Building and Ventilating a Frame Basement.

Editor "The Farmer's Advocate":

So much has been said on the basement stable in your paper of late that I almost feel I am intruding on your space in further referring to it. What experience I have had has been in a stone basement, and as it is similar to that already given by many of your correspondents, I will not repeat. But as an advocate of or convert to the two-story frame building first described in your editorial of the 29th November, would like to add a few words in commendation of it. None of your correspondents who favor this style of building tell us how they are going to enter the second story. To bank up with earth, the usual material used for filling an approach to a stone basement (and I think there is nothing can beat mother earth for an approach), would be disastrous to a frame building. In all basements built in this locality, a generous space is always allowed for roots. Now, why not build a stone root-house the size desired on the side of the building where the approach is to be built. Under the rest of the frame put a cement foundation three feet above ground. Why three feet above ground? For the reason that, in a frame structure coming within a foot or so of the ground, the part next the ground is apt to become damaged in time, and this gives the whole building an unsightly, dilapidated appearance. Especially would this be true of the side of the building on which the stables opened. A three-foot wall also adds greatly to the strain the studding will stand, as every foot added to the wall makes the studding just that much shorter. When finishing the top of this cement wall, if little, square wooden blocks are set in the cement wherever the studding will rest, these little cavities could be used



Shropshire Yearling Ram.

Winner of numerous prizes at English shows.

for mortise holes, and no plank sill would be required. We now come to the posts. Have the outside posts cut long enough to run right through and rest on the cement wall. Mortise in sills the height you desire to make the stable, the same way as girts are mortised in the upper structure. Support these sills by putting 3-in. x 6-in. cedar on edge for studding, 2 feet apart, and 2½ feet where a window is desired. For windows, put in double sash, the same as are used in dwelling houses. Have them fitted so they can be raised from the bottom and lowered from the top. If you want them very convenient for opening and closing, hang them with weights. This could be easily done in a wooden wall. Windows that slide weaken a wall of this kind too much, because they have to be made long, and then, too, at this time of the year, owing to ice or moisture collecting at the bottom of the sash, it is often difficult to make them slide, and they are seldom if ever opened.

Before commencing to board up studding on the outside, tack on building paper, allowing it to overlap pretty well, and cover with good ship-lap lumber. Now take common laths and nail them between the studding where paper overlaps. This makes equally as tight a building as blind boarding before papering, and cuts down the bill for lumber considerably. Board up on the inside with matched lumber, but before boarding tack on the paper. This is what makes the wall tight, and the outside a coat or two of paint. Don't think it would be a bad idea to paint the inside of the

tend to paint it. Would also be tempted to do away with all outside girts in upper structure by using 2-in. x 6-in. uprights instead, then ship-lap and paint.

For a system of ventilation, I do not think I have seen anything better, at least in respect to being inexpensive and not requiring any attention to keep in working order, than common drain tile placed near the top of the wall. But they make a stable draughty at times, and it is difficult to maintain an even temperature. As for bringing in fresh air by the underground-tile method, is there not always a damp, earthy odor to air brought in in this way? No one would think of bringing fresh air into a dwelling house in this way, and what is not good for man is not good for beast. If the fresh air brought in must be warmed, why not use the space between two of the overlays for this purpose by covering on the bottom with galvanized sheeting? The warmest air in a stable is next the ceiling, and the metal being a good conductor, the fresh air brought in in this way would possibly be warmed a little, but one of the intakes would have to be closed all the time, according to the way the wind was blowing. Distribution could be effected by means of galvanized piping, attached to lower edge of overlays, with an elbow running into this space. But this system might savor of being expensive, and would perhaps work better in theory than practice in a country like this, where the wind changes so often.

So I am going to offer the following system as one that I think would give fair satisfaction in all kinds of weather, without requiring any attention whatever, and not have to work automatically, either. This may be a rather sweeping assertion to make at the start, but I think it will stand the test. When building wall on which ends of overlays rest, build the stonework right up between overlays level with edge of flooring, and put a four-inch tile in wall midway between each of the overlays, and quite close to flooring. If a wooden wall, a little smaller opening would, perhaps, be better, the size depending on the thickness of the wall. Be sure that the space between any two overlays runs right through from wall to wall without any obstruction. Enclose this space by nailing on under edge of overlays two inch strips of half-inch lumber, leaving about a two-inch space between each strip. Cover the strips as you nail them on with cut straw or some other porous material to a depth of six inches. This will leave a four-inch air-space between straw and flooring if ten-inch overlays are used. If the space is thought to be too narrow, it could be increased by nailing 4-inch boards on edge to lower side of underlays before putting on the half-inch strips. Now, no matter how calm the weather may be, there will always be a current of air passing over this straw one way or the other, and all foul air and gases given off by the live stock will find their way up through this straw, to be carried away by this current. Get rid of this foul air, and you won't need to worry about fresh air, or whether it is warmed or not. Yet, you do not want a direct draught on your stock, which you often will have if you depend on chutes to carry off the foul air, for you can never tell when this draught will change and blow down instead of up. And another thing in favor of this method of ventilating, it would tend to preserve the timbers from decay, which is quite a consideration, for we cannot get as good timber to build barns with as our fathers had to select from. I know of barns in this locality, erected only a few years ago, in which the overlays are showing signs of decay already, and will, no doubt, have to be renewed in a few years.

Wellington Co., Ont.

Variety Tests of Oats in Indiana.

Variety tests of oats at Purdue Experiment Station, Indiana, placed American Banner at the head of the list in 1906, the yield of the plot being at the rate of 74.9 bushels per acre, while the average of the 42 kinds compared was 61.4. Or the average of the tests of 1905 and 1906, however, the Banner was outclassed by a good many other sorts, its average for the two years being 62.7 bushels, or just a few pounds more than the average of all the varieties tested.

The early part of the season of 1906 was not favorable to the development of oats, the stand secured being rather thin, and the growth backward. Towards the end conditions were more favorable, and good yields were secured, though the straw was short. About half the varieties were sown on the 4th of April and the rest on the 7th, the delay being caused by rain, but no appreciable difference in later development was observed. The ground was corn stubble, and was prepared for the oats by double disking, harrowing and dragging. The seed was drilled at the rate of two and one-half to two and three-quarters bushels per acre, according to size and quality of seed. The averages of the two years show that there is about 13 days difference between the earliest and latest varieties in the time of ripening. The Banner, together with some 20 other varieties, ripened about July 12th.