

registers 30° to 40° below zero. Experts charge from \$3.00 to \$5.00 per day for laying cement floors, but any farmer who will follow the directions given here can make as good a floor as is needed, and need not pay out any wages for skilled labor. In localities where stone is expensive the foundation of any building can often be made of cement much cheaper than with masonry, and if I were building a basement barn I would first make a floor, excavating where the posts are to stand to a solid foundation, and filling with concrete, and then set the posts directly on the floor or on a raised pillar of cement, which can be made by using a frame or box of the height that the pillar is wanted. There should be six inches of good gravel or finely-broken stone as a foundation before the laying of the floor begins, and then in the horse stable five inches of concrete and one inch of topping; in the cow stable, three inches of concrete and one-half inch of topping and the same for a hog house, carriage house, or a coal house, and a still lighter topping in a poultry house.

HOW THE CONCRETE IS MADE.

The concrete is made by mixing eight parts of clean gravel with one part of Portland cement. Or, if finely-crushed stone is used (no piece larger than one inch in diameter) for the concrete, ten or twelve parts can be used to one part of Portland cement.

This concrete should be mixed thoroughly dry, shovelling it over three or four times and then at the last mixing be sprinkled from a fine rose watering pot, enough to thoroughly dampen it, when it is ready to use. We lay the floor in sections, three or four feet wide, so that we can easily reach across it to trowel it. We put up a 2-inch piece and stake it to make the width needed, wheel the dampened concrete in, spread it evenly two inches at a time and ram solid, and so continue until within one inch of the top in the horse stable, or one-half inch for the cow stable or hog house. The top coat is made with two parts of sharp, clean sand and one of cement, thoroughly mixed and tempered, and liquid enough so that it will flow readily. See that the corners and edges are all well filled in and in the horse stable make the floor perfectly level, but in the cow stable give a fall of one inch from the manger to the manure ditch, which should be five feet. To prevent slipping, at the back of each stall make grooves, for two feet in the soft mortar, running crosswise four inches apart, and the same across the doorway where the horses step in. We make these grooves by laying down a broom handle and tapping with a hammer until it is bedded half its diameter.

When a section of the floor is laid, carefully take up the edge piece, moving it to the same distance and lay another section and so continue until the floor is finished. Keep the building closed so that no stock, or even chickens, can get in while the cement is soft; but it will harden in about twelve hours so that it can be walked over. Sprinkle thoroughly with a watering pot twice a day for ten days, when it will be hard enough to put the horses in it.

As you make the floor set blocks in at the proper angle where the studding are needed to partition the stalls, and after the mortar has hardened take them out and it will leave a mortise for the foot of the studding. In addition to the durability of the cement floors there are several other advantages. They afford no harbor for rats, save all the liquid and never become saturated so as to give off offensive odors in the stables as a plank floor will.

We make the floor in the cow stable five feet long from the manger back to the manure ditch, then if we have small cows we put an extra board next to the manger to keep them back six or eight inches, so as to reduce the length of the stall. I prefer a manure ditch two feet wide at the top and twenty inches in the bottom, this gives a slope of two inches each side of the ditch, which we make eight inches deep. The door to the cow stable should be directly at the end of the ditch and then the cows will always walk in through the ditch to their stalls. Back of the manure ditch we make a walk also of cement, two and one-half feet wide and on a level with the floor on which the cows stand. There are

two advantages in a manure ditch of these dimensions, first, that cows will rarely soil the walk, second, although it is best usually to clean the ditch every day, in case of bad weather or extra work, it can be left one or more days without cleaning by simply adding more bedding, as we always bed the ditch as well as the floor. Our manger has a cement floor raised a few inches higher than that on which the cattle stand and is made six feet wide with a row of sock at each side of it. NOTE.—In Canada good results have been obtained by the use of the Thorold cement made at Thorold, Ont. ED.



Money in Lambs—How to Get It Out

Joseph E. Wing, in "Ohio Farmer."

Here is the practical thing to do in Ohio to-day: Get your ewes to dropping their lambs early in the season. Get them to drop them by September if you can; if not, as soon thereafter as possible. Don't say that you can't manage this, you can if you will set about it right. I have Shropshire ewes in the barn to-day, with lambs by their sides, and they lambed in February this year. Their lambs sold in Buffalo in May at a weight of eighty pounds—but I will tell of that later. From this time on I will have lambs coming in almost a steady stream and by New Year's nearly all the lambs will be in sight. What then? Shall we keep them doing well until grass comes and turn them out? Not by a jug-full. Those lambs will be encouraged to eat as soon as possible. That means at an early age, too. Few people realize how early a lamb will learn to eat. They will have a place where they can run to ground to feed, cracked corn and oats and bran, and a little oil meal and clover hay. They will not run out much unless a short time each fair day to rape sown in the corn—for health more than food. Those lambs will do to ship to the New York market during the winter, and Mr. Miller has told what they will bring, say \$5 to \$7 each. And the later ones need not be sent dressed. Last spring we made a shipment that was sent alive to Buffalo and that averaged there eighty pounds, born in February, and they brought us \$6.50 per hundred pounds' live weight. That paid. It paid far better than any feeding that was done on Woodland Farm last year. The reason why it paid was that the food consumed was so small in proportion to the gain in flesh made. It will take three times the amount of feed to put a pound on an old sheep that it will to put it on a little lamb. It is all a clear creation, too. There is no buying your feeders in the fall; you simply take care of your ewes and each year cull them and put the best lambs in the place of the poorer ewes. It is easy in this way to improve a flock, using, of course, the best lambs to replace the aging ewes and the best sires that can be procured. These lambs will not be turned to grass at all and there will be no danger of their becoming seriously infected with any parasites if they are furnished with pure water and fed in decently clean troughs.

When the lamb crop is gone there will be only left the dry ewes and the few lambs that are reserved. These ewes will keep in good condition on very little grass during summer, and I know by experience that they will keep strong and healthy when sheep that happen to be suckling their lambs under the same conditions will simply go to pieces. The lambs that are reserved should on no account be turned with the ewes, they will not thrive on the old pastures; rather let a piece of meadow be partitioned off to them; somewhere, clover or timothy, or alfalfa, almost anything but the infested areas.

The wool on the ewes will not pay their keep, not at present prices, but it will half pay it and perhaps more. The lambs will average the breeder \$5 each clear of shipping expenses, and the clear gain above cost of feed and all will not be much short of \$2.50 per ewe. When it is remembered that the feed is all consumed at home and the manure left to enrich the farm, and that the taking care of these ewes and their lambs is a pleasure and no great