

Bins for holding feed are placed in the front end of the second story. The feed is elevated with a hoisting apparatus, and spouted down as wanted. The feeding and foddering is all done in the barn, and the arrangements for doing it are very convenient.

The milking is also always done in the barn, and for this purpose it is located convenient to the dairy-house and dwelling, which are combined. Convenience and comfort in milking are important considerations, and they have been well provided for. It is warm and comfortable in winter. The sides of the barn are boarded up with matched stuff and battened, the doors and windows are all snugly fitted, leaving no gaps for cold winds to rush in; the cows stand upon the ground and the floor lies upon the ground, giving no chance for wintry currents to drive under and crowd up through cracks to reduce the temperature inside to a level with that outside. The stables never freeze.

In the summer it is cool and airy. The stables contain 46 stanchions while the number of cows milked is usually about 30, so that there is no sweltering heat from cows being crowded together too closely. Ventilation is easy and ample. Besides the admission of air through the doors, there are large wickets in the sides of the barn above and behind the cows, as shown in the elevation, and directly behind each fourth cow is a small door 30 inches square, opening down to the stable floor. These little doors are a happy arrangement. While the warm air passes out through the wickets above, the opening of these doors never fails to let in a current of fresh air that strikes directly upon each cow, and is enjoyed alike by the cow and her milker.

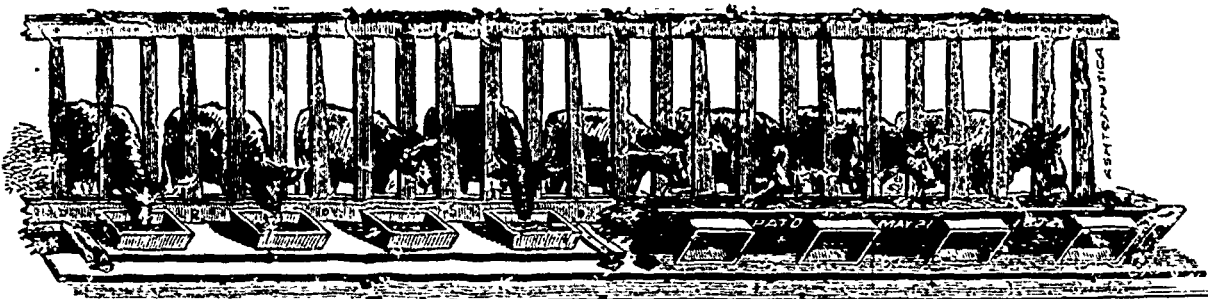
The cost of the barn and wing was about \$6,000. The main barn cost something over half this sum. As the parts were built together, a separate account of each was not kept. Parties desiring to build with less expense could somewhat shorten the length of the stables for the number of cows, and build a cheaper manure shed. Four feet could be saved in the width of the barn by adopting the combined manger and feed box, recently invented by Harris Brothers of Newport, N. Y., of which we give an illustration. This arrangement, which turns up for a manger, and down for a feed-box, as the illustration will show, is hung on hinges from which it can be slipped off in divisions, and put aside when the room is wanted for a drive-way or other purpose. The wing will not generally be needed for a dairy-barn, as the accommodations it affords are usually found in other buildings, which in Mr. M's case had been swept away by fire. A nice and substantial barn, capable of accommodating 30 cows, could now be built for \$3,000 or probably less.

Cheese Factory Facts.

In answer to inquiries X. A. Willard gives, in the *Rural New Yorker*, the following condensed summary of facts, which will answer many questions in the minds of those not familiar with the business. Mr. Willard says:—

1. A building 75 feet long by 32 feet wide and two storeys high will be large enough to accommodate the milk of 400 cows. The storeys should be each from eight to nine feet high in the clear. A hard, dry, airy location should be selected, with sufficient descent in the rear of the building to insure the escape of decomposing slops to a safe distance. The length

of the manufacturing and press-room will be about 35 feet. It should be separated from the curing-room (lower storey) by a tight double partition, with a largesliding door in the centre between the two lines of presses. A boiler-room and a wood or coal-room will be erected at the end adjoining the manufacturing-room, with a door between the two. In front of the manufacturing department, and connected with it, there should be a building for a drive-way and receiving platform, where the teams can deliver the milk under cover.



Cheese factories in New York are usually built of wood and cost all the way from \$3,000 to \$8,000, or more, according to size and finish. The apparatus, including steam boiler, vats, &c., for furnishing a factory the size named will not be far from \$800.

2. The average quantity of cheese per cow for the season at the New York factories is about 400 pounds. Sometimes an average of 500 pounds is reached. The season of factory work ranges from seven to nine months. Only a few are kept open in winter and then cheese is made at intervals of several days, or according to the quantity of milk furnished. At 400 cows, averaging 400 pounds each, the quantity for the season would be 160,000 pounds. From \$1.60 to \$2 per 100 pounds is charged for manufacturing cheese and fitting it for market.

3. Factories in New York, market cheese when it is 30 to 40 days old. The price per pound varies in different localities and from year to year, say from 12c. to 15c. for shipping. Where there is a good home market better prices are not unfrequently obtained. Like all other products, the price is governed by the supply and demand and the quality of the goods.

4. The whey from the milk of five to six cows is usually considered sufficient for the keep of one hog, but it is advisable to feed meal of some kind in the whey.

5. In old times cheese was sent to market in barrels. These are now out of date and boxes universally employed for packing. The cost of boxes varies in different localities, but perhaps a little less than half a cent per pound of the cheese would be the average expense for packages.

6. Good cheese makers can be had for from \$75 to \$100 per month and board during the cheese making season of eight to nine months. With a good manager the other help about the factory may be the ordinary hands of the country.

7. The profit realized per cow will depend upon the price received for the cheese and the quantity made. If 400 pounds be taken as the average product, and the cheese sells for 14c., the profit per cow may be easily calculated.

8. The time for having the milk all in at the factory is generally regulated by the factory managers, from seven to eight and even nine o'clock in the morning and the same in the evening, during the summer.

9. If milk is properly cooled and aerated at the farm it may be carted five miles to the factory and arrive in good condition—that is, on all ordinary roads of New York. It is carried in tin cans holding from 30 to 40 gallons.

10. A popular plan in New York is to erect the factory on the joint stock principle each person delivering milk taking shares. Sometimes a factory is built and owned by one or more persons who will purchase the milk and run the factory on their own account. In such cases the price of milk is regulated by the price of cheese. Thus, for instance, it takes 10 pounds of milk to make one of cheese, and the ten pounds of milk is worth the price of one pound of cheese less the cost of manufacturing and marketing, which is from two to three cents, according to localities and circumstances.

Brine for the Preservation of Butter.

To three gallons of brine strong enough to 'bear an egg, add a quarter of a pound of nice white sugar, and one tablespoonful of saltpetre. Boil the brine, and when it is cold strain carefully. Make your butter into rolls, and wrap each roll separately in a white muslin cloth, tying up with string. Pack a large jar full, weight the butter down, and pour over the brine until all is submerged. This brine will keep really good butter for a whole year. Be careful not to put upon ice butter that you wish to keep for

any length of time. In summer, when the heat will not admit of butter being made into rolls, pack closely in small jars, and using the same brine, allow it to cover the butter to a depth of at least four inches.

This excludes the air, and answers very nearly as well as the first method suggested.—*Hearth and Home*.

Improved Management of Cows.

Mr. G. C. Bradley, an enterprising farmer of Jefferson Co., N. Y., discussed this question before his county Farmers' Club, lately, and drew a contrast between horses and cows in reference to profit, and found that horses were much better cared for, and produced less profit. He figures the expense of keeping a horse as follows:

137 bushels of oats at 50 cents	\$68 50
6 570 pounds of hay at \$15 per ton	48 27
Labor in taking care of a horse, 15c. per day	54 75
Interest on investment, say \$200	14 00
Wear, risk and depreciation 10 percent	20 00
Interest on wagon, carriage, etc.	21 00

\$226.52

Making cost of a span of horses... 453.04

He thinks horses are not made to pay the cost of keeping them. The cow, he thinks, kept on the pinch and starve system, with a ton and a half of hay, and a little straw in the winter, will cost \$22.50 for wintering and \$13.00 for summering, making a year's keep \$35.50, and that he will do well if he gets 300 pounds of cheese, which at twelve cents will bring \$36.00, leaving a balance of fifty cents over keep. But when a good cow is fed liberally, it will cost \$50.00 per year, and she will make 600 lbs. of cheese, which at present prices, sixteen cents, would bring \$96.00, and leave a profit of \$46.00, to cover labor, risk, etc. This average of 600 lbs. per cow has been reached by some of the best dairymen, and no one should be satisfied till he has reached it. He believes that it is cheaper to keep cows warm in good barns, than to warm them with food out of doors, and quotes Mr. Arnold, of Utica, N. Y., who says he has found by careful experiment that 200 lbs. of hay in a warm barn will go as far toward keeping stock as 300 lbs. in a barn full of cracks and openings, and that he tried it with ten cows in each case. He thinks the profits of the future depend mostly upon improved feeding in our dairies.—*Live Stock Journal*.

Cows are sociable, and understand more than we suppose. The way I came in possession of this choice bit of knowledge, Tim and I used to sing to our cows. They knew very quick when we changed from one tune to another. We have tried them repeatedly. When we sang sober church hymns, they'd lop their ears down, look serious and chew their cud very slowly, reminding me—no irreverence meditated—of nice old ladies in church, listening to the words of the preacher; yet all the while munching clover. Then we'd change to some quick air, "Yankee Doodle" or the like, and they would shake their heads, open their eyes, blink at us as much as to say, "Stop, don't ya know we are the Deacon's cows?" But when we would stop entirely, every cow would turn her head as if asking us to go on with our singing. If it was pleasant, we generally sang together through the entire milking. I love the dear animals that add so much to our comfort. What is better than sweet, golden butter, and nice rich cream? Boys, will you not be kind to the cows?—M. M.