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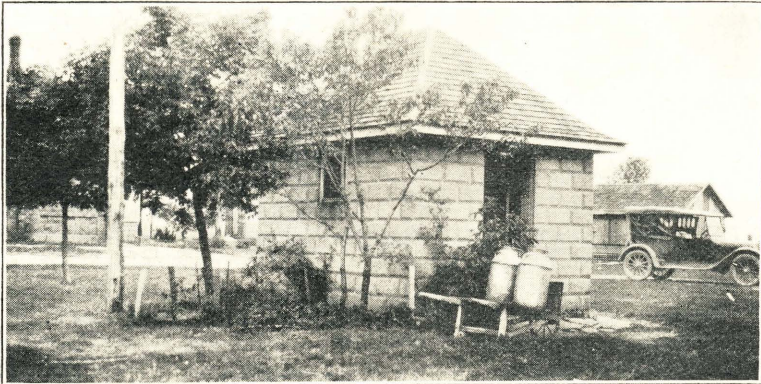
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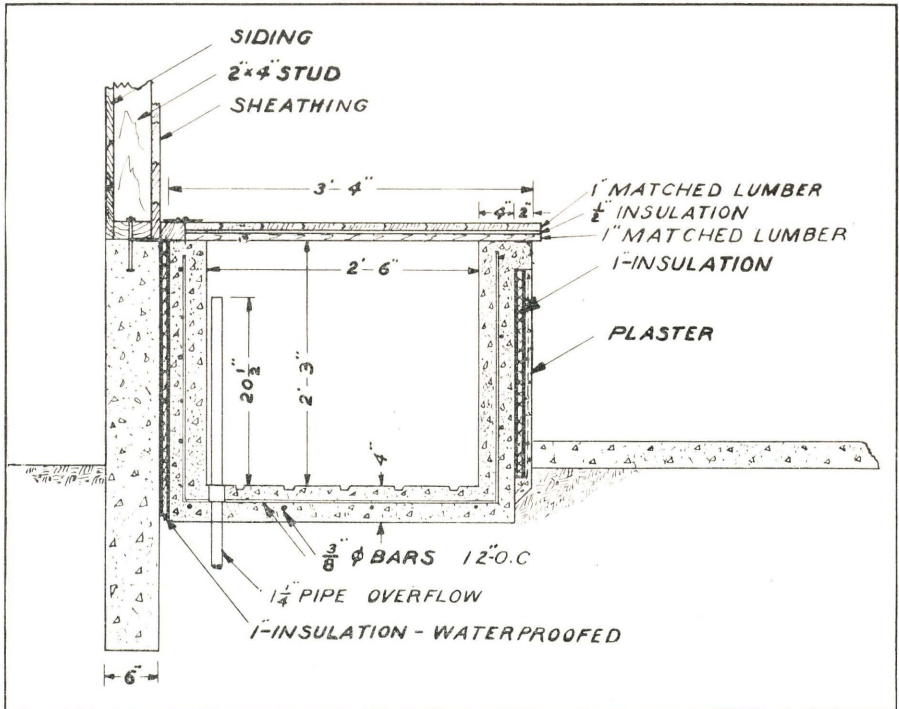
# FARM MILK HOUSES

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A New Type of Insulation for Milk Holding Tank. Insulation of the cooling tank reduces the possibility of freezing of the cooling medium in winter, and helps in maintaining lower temperatures during the summer.

# FARM MILK HOUSES

## Cleanliness

The quality of all dairy products is largely determined at the farm where the milk is produced. This means that the dairyman controls in a large measure the relative sales value of the particular product into which the milk may be manufactured, for dairy products command prices in proportion to their quality and it is impossible to make a first class finished article from poor grade raw material. The production of clean milk and cream for a condensery or any other type of manufacturing or distributing plant is of advantage to the factory and to its farmer patrons for the reason that it secures a greater return for the manufactured product, and this in turn is usually reflected in the price for raw material.

Cleanliness and prompt cooling are the main essentials in the production of good quality milk. Cleanliness includes all procedure calculated to keep dirt and bacteria from gaining access to milk, for dirt and bacteria are inseparable companions. Clean barns, clean healthy cows, clean healthy milkers, and clean utensils keep bacteria from getting into milk. Clipping the cow's flanks and udder, keeping the atmosphere relatively free from dust, and using small-top milk pails will greatly reduce the amount of foreign material that falls into the milk. If the cow's udder is dampened with a cloth just before milking, the reduction of foreign material is still greater. Milking with clean, dry hands is another precaution well worth heeding. The first few streams of milk are always more or less contaminated with germs. If these are rejected the initial bacterial count will be much lower. Unclean pails and cans, especially those with open seams, harbor contaminating material which acts as a seed bed of infection. To eliminate this source of contamination, each utensil after use should be thoroughly washed with some good cleanser, rinsed, well scalded, stored in a dry, clean place, and allowed to dry of its own heat.

## Cooling

With the most elaborate precautions for maintaining cleanliness a few bacteria enter milk. Prompt cooling and holding milk at a low temperature keep these from multiplying rapidly. The number of bacteria originally present in milk held at 85°F. for two hours may increase from seven to ten fold. If cold water is available, the wall type tubular cooler is the quickest and most convenient means of cooling. Many hours labor is saved through its use, especially during the summer when the farmer is busy and when milk requires the greatest attention. Where small quantities of milk are produced, the milk may be placed in a tank of running water. When such means are used, a can of milk must be stirred 10 to 15 minutes, if it is to be well-cooled. If not stirred, the layers of milk which are next to the walls of the can act as insulation and tend to hold the heat in the can.

## Milk Houses

To provide a clean place for cooling or separating milk, and for holding and cleaning utensils, a milk house is a desirable adjunct to the dairy business. Indeed, many of the larger cities require that milk produced for their trade be handled in milk houses, so as to insure, in so far as possible, its purity. This convenience on the dairy farm is a great source of usefulness, whether required by law or not. Here, away from the barn and its contaminating dust, the utensils for milking and the equipment for cooling and holding milk cool may be housed.

The regulations governing the production, handling, and sale of milk sold or to be sold for direct consumption in Michigan, as made by the Department of Agriculture are for Grade A milk:

### Milk House or Room.

- a. A milk house or milk room shall be provided that is separate from stables and wash rooms and located free from contaminating surroundings at least 10 feet from stables, and shall be constructed with tight walls and ceiling, with a tight floor and proper drainage facilities.
- b. Proper windows with screens shall be provided for the milk house or rooms where milk is handled.
- c. The milk house or room shall be used exclusively in caring for milk and milk utensils.

For Grade B milk:

### Milk House or Room.

- a. A milk house or room must be provided separate from stables and free from contaminating surroundings.

Copy of full text of rules and regulations may be obtained from the State Department of Agriculture, Bureau of Dairying, Lansing, Michigan.



## Plans for Construction

The following plans are given for those desiring to build milk houses and will be found to provide for economical construction as well as all essential features.

Details of construction shown on these plans make it convenient for the local dealer in building materials to take off quantities and give an accurate estimate of the cost of materials. Labor costs for building may be estimated to be one-half or more of the cost of materials.

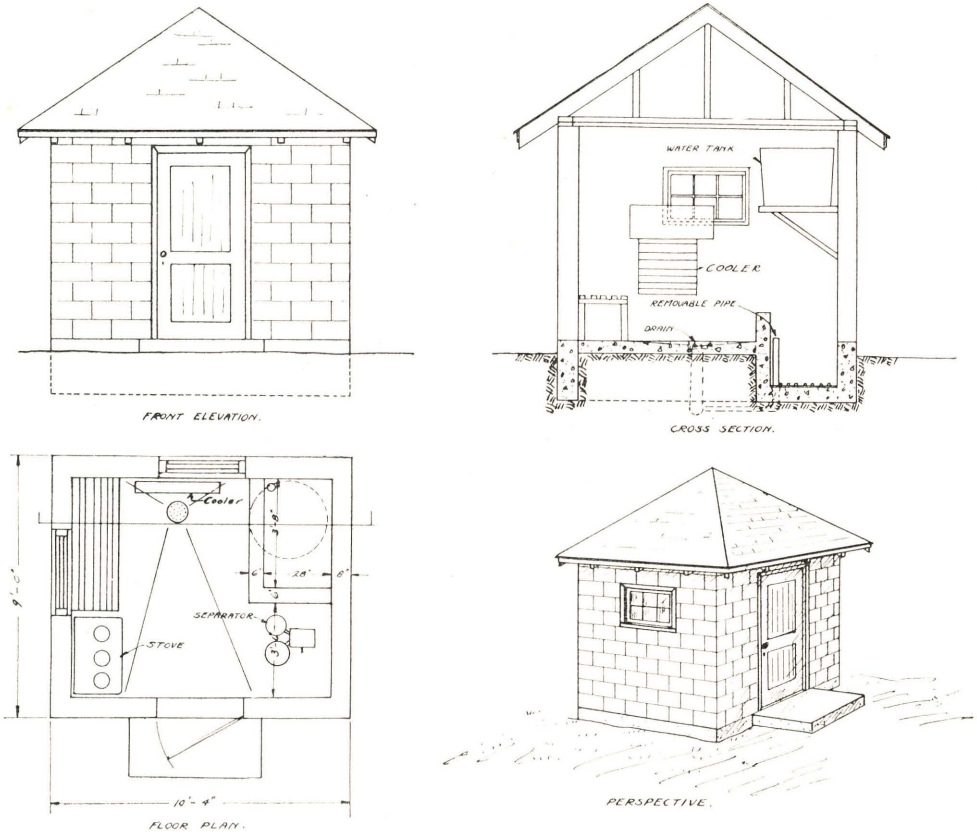


Fig. 1. C-2056

A plan suitable for a farm with a herd of from 12 to 20 cows from which whole milk is sold. All milk utensils are washed at the farm. A cooler could be added if desired.

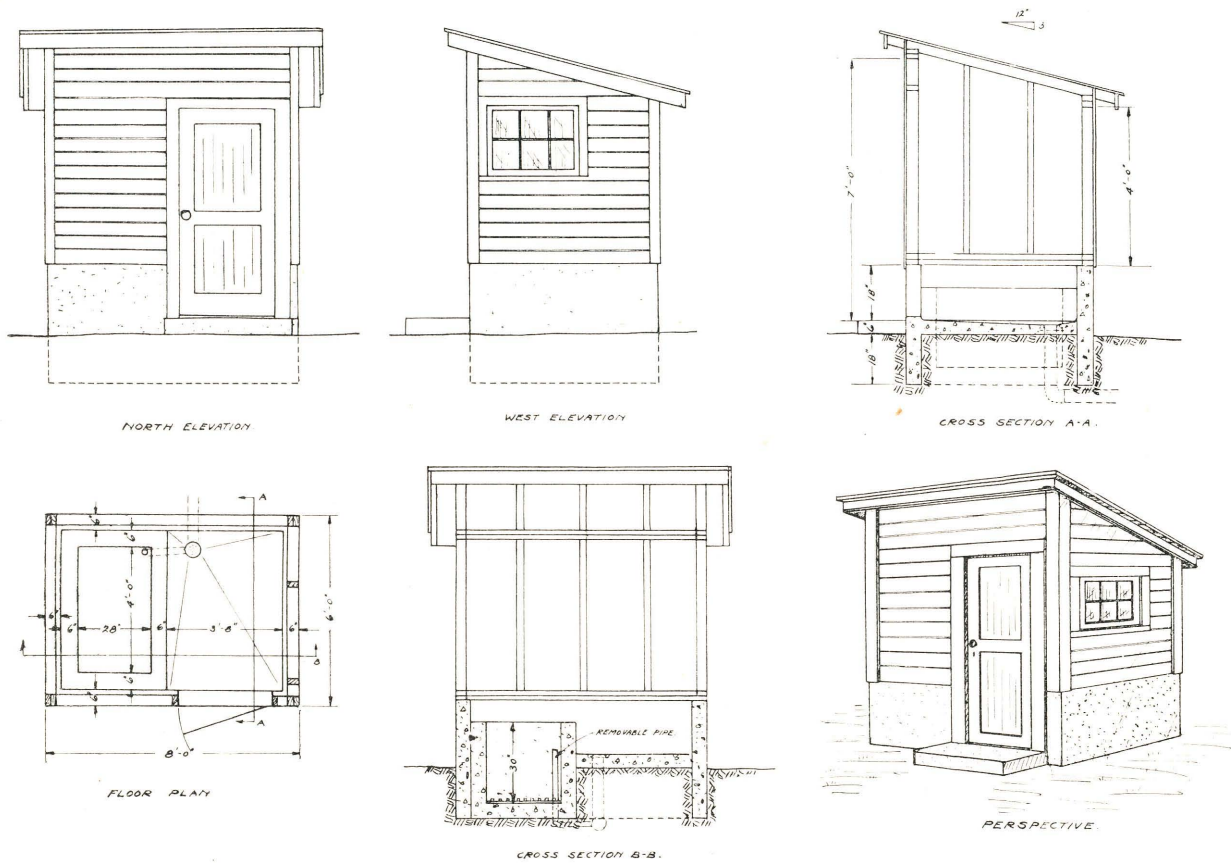
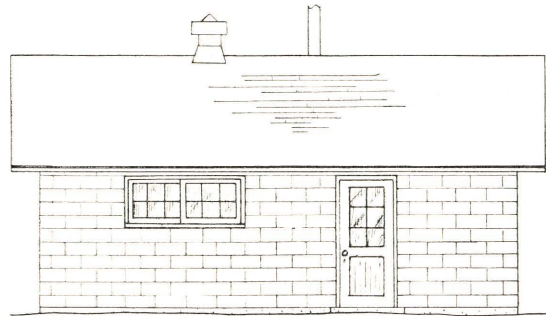


Fig. 2. C-2058

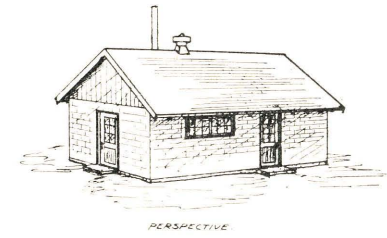
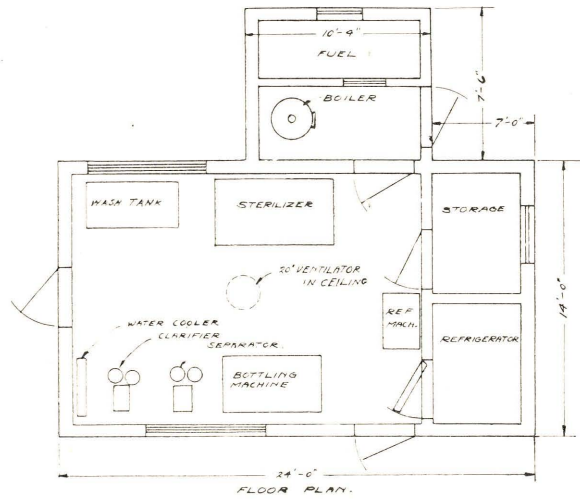
A plan suitable for a herd up to 20 cows, where product is disposed of either as whole milk or cream. Provisions are made to care for utensils in the milk house.



FRONT ELEVATION



END ELEVATION



PERSPECTIVE

Fig. 3. C-2057  
 Plans for a bottling plant equipped with a vertical boiler and a refrigerating machine.