Sheet the outside of the studs with matched siding. Line the inside with rough boards, as well as the under side of the rafters. Leave space between studs empty.

Have doors in sections running up from the sill to the gable at one end of the ice-house.

3. Before putting in the ice cover the stones or gravel in the ice-house with 12 inches of *dry* sawdust.

4. Pack the ice directly on the sawdust. Leave a space of 12 inches between the walls and the ice. Place the cakes of ice as close together as possible, and fill in all unavoidable spaces with crushed ice or snow, well rammed. Never use any sawdust between the tiers.

5. Fill the 12-inch space between the ice and the wall with *dry* sawdust. Be careful that the sawdust does not contain any ice chips or snow. When no sawdust is available, cut hay or cut straw, or chaff, may be used, but in this case the space between the wall and the ice should be twice as large (24 inches instead of 12) and care should be taken to have the hay or straw packed as well as possible.

6. Cover the ice on top with sawdust or long hay; 12 inches of sawdust will do. Hay should be put on 2 feet thick. Hay and sawdust make an equally good covering, if used in proper quantities.

When sawdust is used, put on two feet thick at first. This will leave 12 inches to spare to fill in the sides in the spring, when the sawdust along the sides has settled.

7. A loft floor over the ice-house does more harm than good, as it prevents circulation of air and keeps the covering damp. Have an opening at each end of the gable fitted with louvre boards, and have a ventilator 18-inch square going through the middle of the roof to create a thorough circulation of air and thus prevent accumulation of heat under the roof.

8. Bank the ice-house up above the sill with earth or sawdust, in order to prevent any entrance of air around the sill.

NOTES.

1. It may be well to point out that in the construction shown in these plans, the real insulation is the air confined between the inside and the outside sheathing, and made *dead air* by being held in the small spaces among the shavings. It is important, therefore, that these inner and outer shells should be made as nearly impervious as possible. The greatest care should be exercised in making tight joints and leaving no cracks or openings of any kind. Even a nail hole allows a stream of air to pass which, being continuous, soon has an appreciable effect.

2. It is a good plan to hang a canvas curtain over all refrigerator door openings, on the side opposite to that on which the door opens It should be weighted at the bottom, so that it will fall quickly into position after a person passes through. This will prevent loss of cold air, which flows out of a cold room when a door is opened.

3. Many creamery proprietors are deceived as to the actual temperature maintained in their cold storage rooms. A good test is to push the bulb of an ordinary float thermometer about 3 inches into a package of butter which has been in the room two or three days. This will give a fair average of the temperature maintained in the room.

4. The use of salt, with ice, in a refrigerator, does not increase the cooling power of a given weight of ice. The effect of the salt is to cause the ice to melt more rapidly and thus absorb heat more quickly. A ton of ice, in melting, absorbs 284,000 heat units, either with or without salt. With salt the absorption is quickened, hence a lower temperature for a shorter period. A heat unit (B.T.U.) is the amount of heat required to raise 1 pound of water 1 degree F. One pound of ice in melting absorbs 142 heat units.

Copies of this bulletin, in English or French, may be procured, free of charge, by applying to the Dairy Commissioner, Ottawa, Ont.