

MATERIALS.

Wood.—All lumber employed to be thoroughly dry and sound, without loose knots or shakes, and odourless.

Spruce and hemlock are the best, in the order named. Pine is not suitable for inside sheathing on account of its odour.

All boards employed should be dressed as well as tongued and grooved.

Unseasoned lumber must be carefully avoided. When building in winter, fires must be kept going so as to have all materials as dry as possible. This is very important, as dampness in insulation destroys its efficiency.

Paper.—All paper used to be strictly odourless and damp.

Damp-proof insulating papers can be had in rolls of 500 to 1,000 sq. feet, 36 inches wide. The following brands can be recommended, viz.: 'Neponact', 'Hercules', 'Ko-Sat'.

Tar paper, felt paper, straw paper, rosin sized paper, and all other common building papers are not suitable and must not be used.

Use double thicknesses of paper in all cases, each layer lapping two inches over preceding one. The layers should extend continuously around all corners. All breaks to be carefully covered.

Shavings.—Shavings must be thoroughly dry, free from bark or other dirt. Shavings from some odourless wood such as hemlock, spruce, or white wood, to have the preference.

Shavings in compressed bales, weighing from 60 to 100 lbs., may be procured from the following firms:—

Wm. Rutherford & Sons Co., Montreal.

J. & G. Esplin, box manufacturers, Montreal.

The Capital Planing Mills, Ottawa.

The Firsbrook Box Company, Limited, Toronto.

Bales of shavings received in a damp condition should be opened and the shavings exposed to the air and stirred occasionally until they are dry.

Spaces in walls should be filled gradually, as the inside sheathing is being put on, and the shavings thoroughly packed.

About 8 lbs. of shavings, closely packed will be required for each cubic foot of space filled. For a room 8 x 8 x 7 feet with ante-room 8 x 4 x 7 feet, built on this specification, 3,000 lbs. will be needed.

Cinders.—Coal cinders should be used wherever possible, to cover the earth over area of refrigerator in preference to sand, gravel or tanbark.

CONSTRUCTION.

Foundations.—The building should rest on stone or concrete foundations. The area within the foundations to be covered with a layer of coal cinders, ashes, or sand, 6 to 8 inches deep.

Floor.—Lay centre piece (6 x 6 inches, or 3 x 8 inches on edge) on a level with sills. Across this piece lay false floor made of tongued and grooved boards, extending to outer edge of sills. Cover with two thicknesses of damp-proof paper. Put on floor joists (2 x 8 inches, at 18-inch centres). Fill up spaces between joists with shavings, well packed. Cover top of joists with two thicknesses of boards and paper.

Walls.—Lay up two rows of 2 x 4-inch studs so as to leave space of 12 inches as shown in plan. Studs of inside row to be set alternately with the studs of outside row. (See plan.)

Cover outside of frame with tongued and grooved boards, paper and siding.