

COLD STORAGE FOR APPLES.

SIR,—I have been unable to find an architect who knows anything of the construction of cold storage buildings. Could you describe or give a section of wall of storage building, how constructed of wood, how many times boarded and papered, if filled and what with, is any ventilation or circulating medium used? How is ice chamber constructed? Can two story building be cooled with one ice chamber, if so, how is cold air brought to lower flat? Would it be advisable to put lower story partly in ground? Would any windows be required? If you cannot give the above information, could you advise where I could get it?

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In January number of volume XVI, full directions for a first-class cold storage house were given with illustrations, to which we refer our enquirer for replies to most of his enquiries. This subject has been treated several times in this Journal.

A simple hillside fruit cellar was illustrated on p. 251, Vol. X, from "Jour. of Chemistry" (Fig. 661). Two rooms, large enough to contain all the fruits of the farm, are needed—an outer and an inner. A cellar should be dug in the south side of a hill large enough for the inner room. The outer room should be exposed to the air wholly in front, and on the sides far enough to accommodate two windows, as shown in the engraving. Build of brick or stone, carrying the walls to the height of eight feet. If stone is used—it may be rough and be put up by any farmer—it must be pointed with mortar. A thick wall, with a door, should separate the two rooms. In the engraving the walls are shown by dotted lines. The roof should come near the ground in the rear; be carefully constructed and supported by

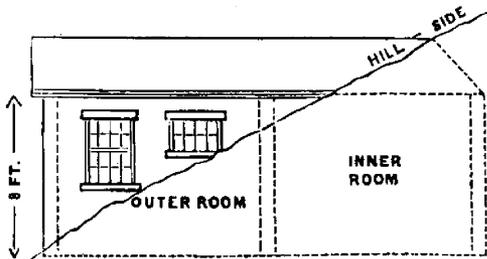


FIG. 661.—DR. NICHOLS' HILL-SIDE FRUIT CELLAR.

timbers; be lined with tarred paper, strongly secured and painted with tar or pitch. There should be a ceiling—rough boards will do—and a space one and a half or two feet deep between it and the roof, to be filled with dry straw, hay or sawdust.

The fruit should be kept in the outer room until freezing weather, and then be removed to the well protected inner one. The outer room should be ventilated through its windows; the inner, by opening both doors, *but only in cold, dry weather*, as warm air introduced would condense and give out moisture. There must be special care about admitting warm air in the spring.

For ice storage, the California Fruit Grower describes the following, as an inexpensive house. The room itself may be any size most convenient. Erect a frame lined on the inside with heavy paper and varnished with shellac, then ceiled and floored with matched stuff, $\frac{5}{8}$ or $\frac{3}{4}$ inch thick. Varnish the entire