

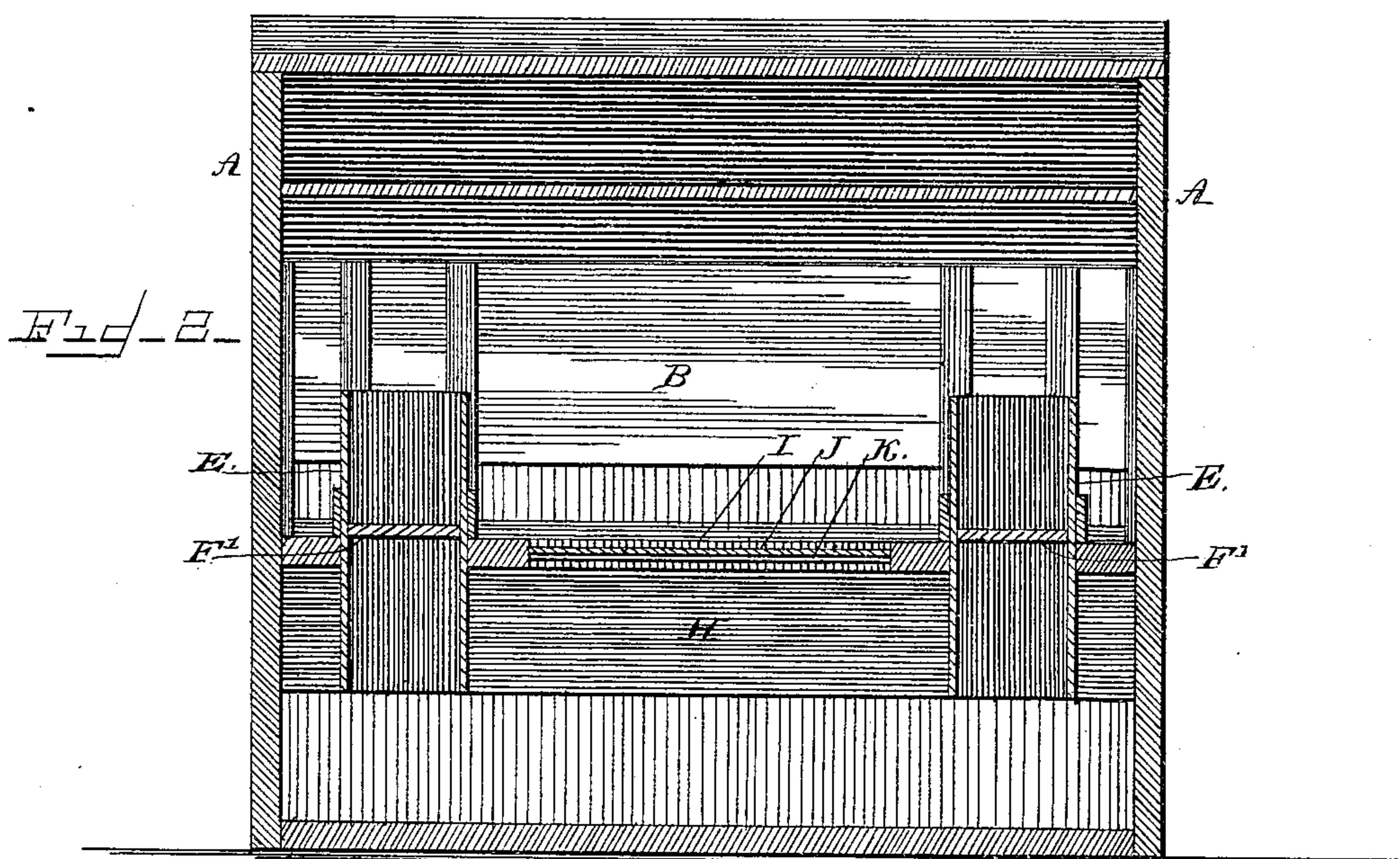
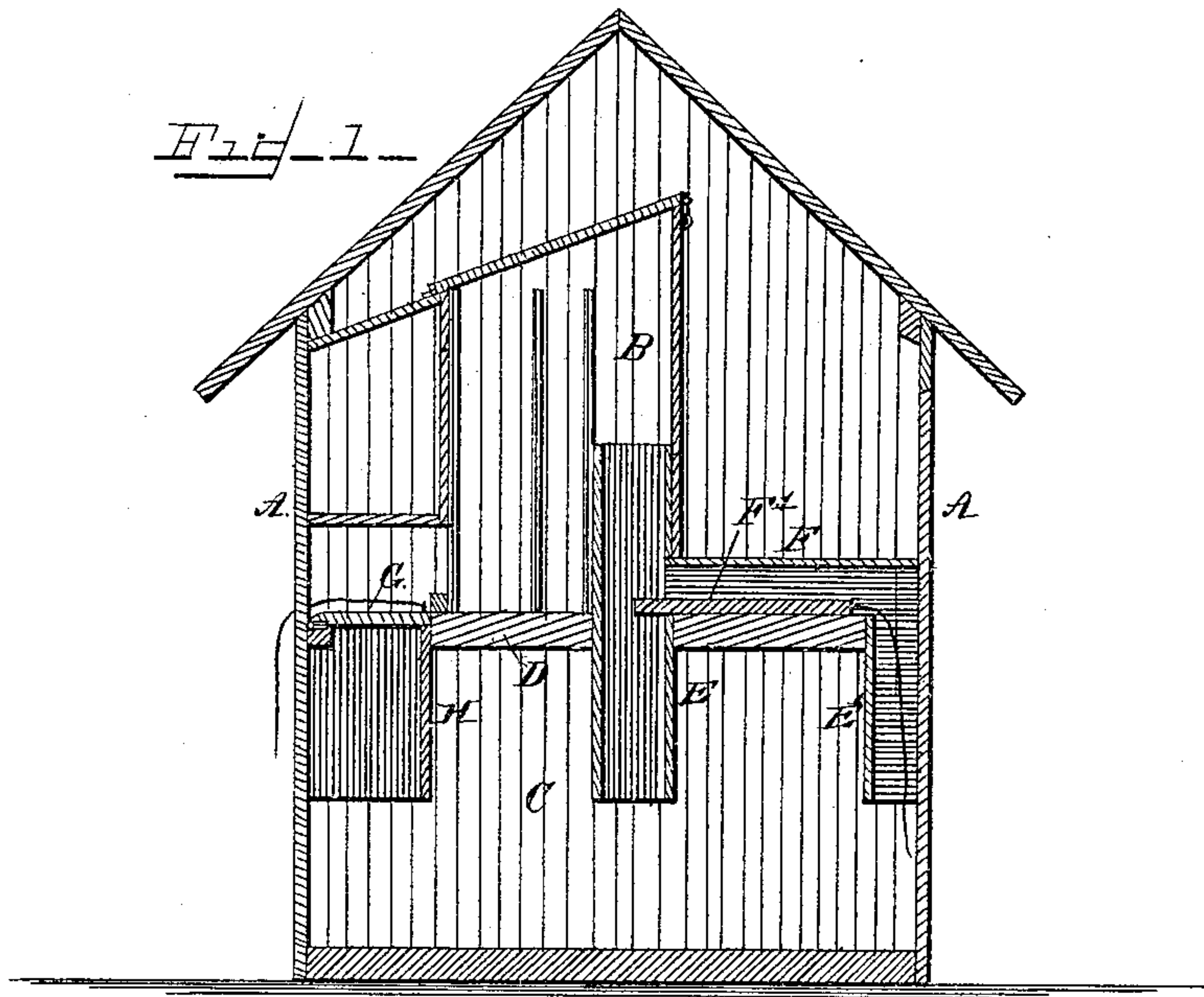
(No Model.)

DU BOIS F. GERALDS.

REFRIGERATOR HOUSE.

No. 353,553.

Patented Nov. 30, 1886.



Witnesses

R. W. Bishop.

C. H. Lavalley

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UNITED STATES PATENT OFFICE.

DU BOIS F. GERALDS, OF CLINTONDALE, NEW YORK.

REFRIGERATOR-HOUSE.

SPECIFICATION forming part of Letters Patent No. 353,553, dated November 30, 1886.

Application filed May 6, 1886. Serial No. 201,373. (No model.)

To all whom it may concern:

Be it known that I, DU BOIS F. GERALDS, a citizen of the United States, residing at Clintondale, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Refrigerator-Houses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to improvements on the refrigerator-house for which Letters Patent No. 333,407 were granted to me on December 29, 1885, the object being to increase the efficiency of the said patented house, as will be hereinafter fully described and set forth.

My improvements are clearly shown in the accompanying drawings, in which Figure 1 is a vertical cross-section, and Fig. 2 is a vertical longitudinal section of my house.

Referring to the drawings by letter, A A indicate the frame of the house, B the ice-chamber, and C the refrigerator-chamber. The ice-chamber and refrigerator-chamber are separated by a horizontal partition, D, as shown, and are connected by the tubes or ducts E E', as shown.

In operation the cold air from the ice-chamber descends through the ducts E, and is met by the warm air ascending from the refrigerator-chamber. The ascending warm air is reduced to the temperature of the descending air and a uniform downward current is established. The warm air which ascends through the duct D passes up without meeting any descending cold currents, for the reason that these ducts are placed to one side of the ice-chamber, as clearly shown. A passage, F, connects the ducts E and E', and a slide-valve, F', works in this connecting-passage, so as to regulate the capacity of the aforesaid ducts E E'. The warm air which passes through the ducts E' also passes through passage F to the ice-chamber, where it is mixed with the cold air and again descends to the refrigerator-chamber, thus keeping up a constant circulation.

H is an auxiliary cold-air duct, the opening of which is regulated by the valve G, so that a greater supply of cold air may be admitted to the lower chamber when so desired.

Though good results were obtained from the use of my former house, it was found in practice that fruit or vegetables in the end of the house were kept in better condition than those in the center, owing to the fact that the cold air did not have as ready access to the substances in the center of the house as to those in the ends. This objection could be obviated by providing additional ducts E E'; but this would diminish the capacity of the house, as will be readily appreciated. In my present device I have overcome this obstacle by providing a slot, I, in the partition D, running nearly the entire length of the said partition and having a valve, J, pivoted therein. The pivot-rod K of this valve J may be extended and connected to the valve F' by a crank-arm, so as to be operated simultaneously therewith; but this is not essential to the operation of my invention.

The operation of my house will be fully understood on reference to my former patent, hereinbefore mentioned, and need not be specifically described herein. The fruit in suitable packages is stored in the lower or refrigerator chamber, and preserved for an indefinite time by the action of the cold air descending from the upper chamber through the cold-air ducts and the slot I.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, in a refrigerator-house having an upper and lower chamber separated by a partition, D, of the cold-air ducts E, the intersecting warm-air ducts E', having the common slide-valve F', and the valve J, pivoted in the slot I in the partition, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DU BOIS F. GERALDS.

Witnesses:

H. W. SUTTON,
J. H. WARDELL.