(No Model.)

J. O. BECK.

ICE HOUSE.

No. 344,614. Patented June 29, 1886.

Fig. 1.

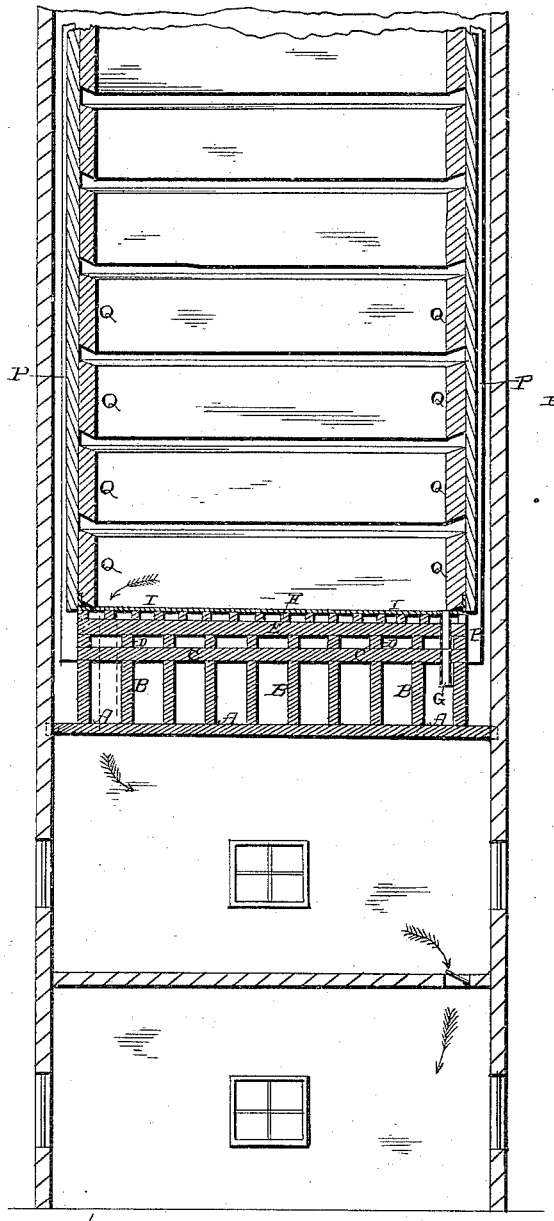
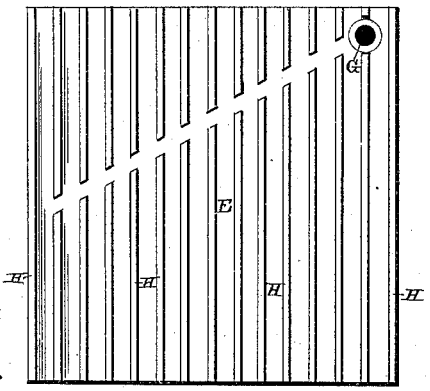


Fig. 2.



Witnesses.
A. D. Gardner
A. S. Pattison

Inventor.
J. O. Beck,
per
F. A. Lehmann,
Atty.

UNITED STATES PATENT OFFICE.

JOHN O. BECK, OF CHICAGO, ILLINOIS.

ICE-HOUSE.

SPECIFICATION forming part of Letters Patent No. 344,614, dated June 29, 1886.

Application filed December 16, 1885. Serial No. 185,794. (No model.)

To all whom it may concern:

Be it known that I, JOHN O. BECK, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ice-Houses; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in ice-houses; and it consists in the arrangement and combination of parts, which will be more fully described hereinafter, whereby an ice-house is produced in which ice can be kept with the least possible waste.

Figure 1 is a vertical section of an ice-house embodying my invention. Fig. 2 is a plan view of the bottom, with the pan removed.

The walls of the ice-house will be constructed of brick, stone, or any other suitable substance or compound through which the heat will not readily pass. In the walls of the house are placed two joists, A, upon which the joists B are set. These joists will be of any desired dimensions, and placed any suitable distance apart. Upon the tops of these joists is laid a tongue and-groove flooring, C, and upon the top of this flooring are placed strips D, and upon the tops of these strips D is placed another tongue-and-groove flooring, E. The strips serve to separate the two floors sufficiently far to allow a free circulation of air between them. The floors are higher upon one side than the other, so as to form a gradual incline, and thus cause all of the moisture to run toward the escape-pipe G. Upon the top of the upper floor are placed two series of strips, H, which are separated from each other on a diagonal line and far enough to allow the water to pass freely between their ends toward the drain-pipe. These strips form the support upon which the metallic pan or bottom I is placed. This metallic pan or bottom is prevented from coming in contact with the upper floor by means of these strips, which allow the air to freely circulate between the top floor and under side of the pan. All of that moisture which condenses upon the under side of the pan drops upon the top floor and runs between the strips to the escape-pipe. The ice is all piled upon the metallic pan or bottom, which catches all of the water from the melting ice and carries it off through the pipe G. The structure above described does not extend quite to the outer walls of the building, for the vertical joists P, which form the sides, are to be placed between the walls and the sides and ends, as shown. These vertical joists are secured to the sides and ends of the bottom above described, and extend up within any desired distance of the top of the building. Extending horizontally across on each side are the planks or boards, Q, which are separated a suitable distance from each other, and which have their edges beveled, as shown, so as to shed any water from the ice inward. The space between the outer walls of the building and these joists and boards is filled with shavings or other suitable non-conducting substance, which serves to prevent the passage of any heat which may possibly radiate through the walls into the ice.

All the wood-work above described is to be made of Norway pine or other suitable lumber, which is to be rendered thoroughly waterproof by the use of paint, shellac, varnish, or any other suitable materials which will answer the purpose of making it thoroughly proof against moisture in any form.

Below the joists A B are made any suitable number of cold-air chambers, and through the floors are made suitable openings, controlled by valves, at any desired points, so that the flow of cold air into the chamber below can be regulated at will. In these chambers can be kept meats, fruits, and perishable articles of all kinds. These rooms will be lighted by windows, so as to prevent the necessity of having to use a lamp or candle therein.

Having thus described my invention, I claim—

1. A floor for an ice-house, composed of the joists, the two floors, and the metallic pan or bottom, with the strips which are placed between the floors and the pan or bottom, substantially as shown.

2. A floor for an ice-house, composed of the joists, the two floors, the boards of which are made to fit tightly together, the strips which are placed between the two floors, the strips

which are placed upon the top of the upper floor, the metallic pan or bottom, and the drain-pipes, substantially as described.

3. An ice-house composed of the outer walls, the joists, two floors, the metallic pan or bottom, the strips which separate the floors and the pan from the upper floor, with the vertical joists, the boards which are secured thereto, and a suitable packing of non-conducting substance placed between the walls of the building and the boards and joists, substantially as specified.

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

JOHN O. BECK.

Witnesses:
JOHN CASEY,
LOUIS KOEHLER.