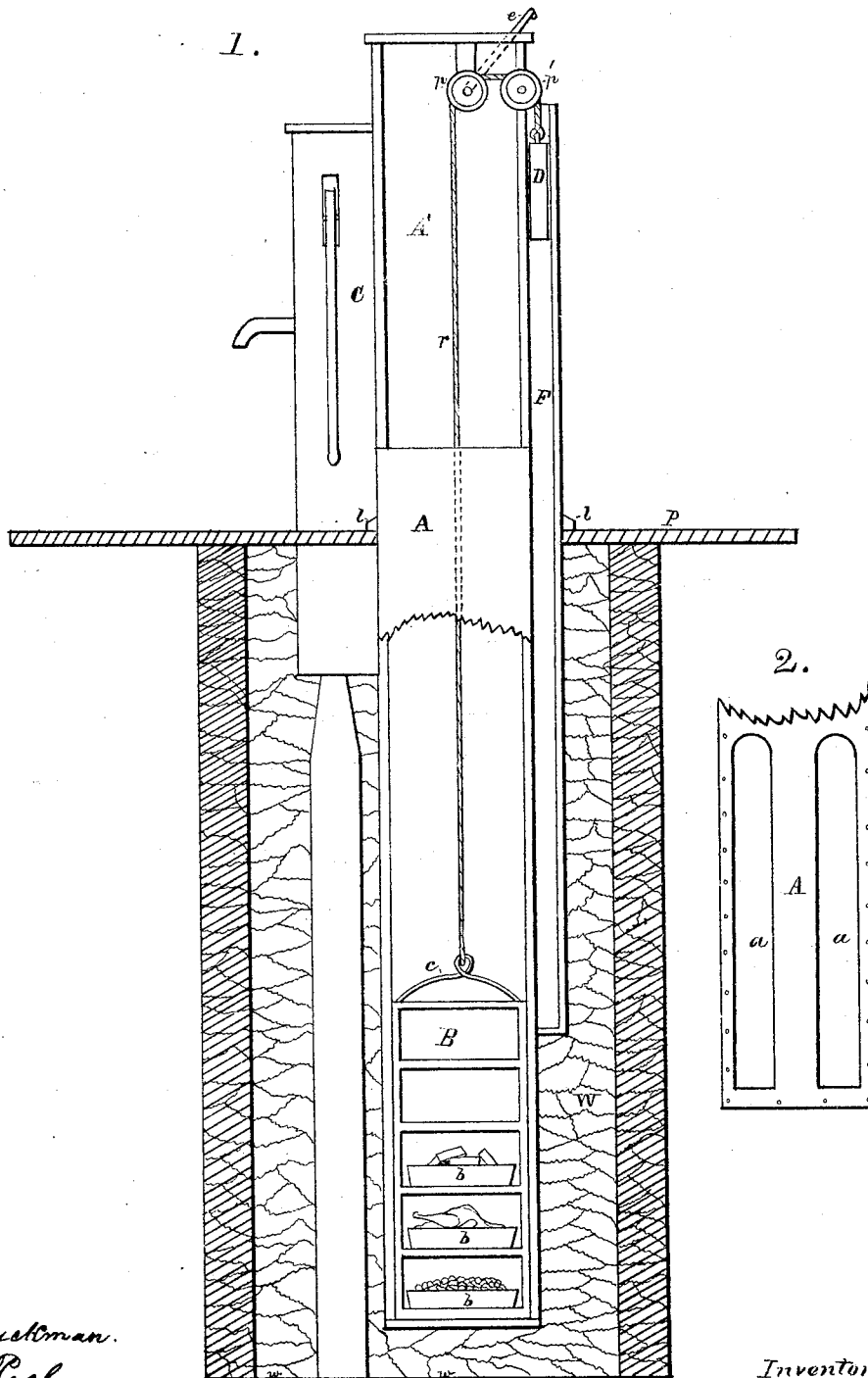


R. THOMSON.
Refrigerators.

No. 145,317.

Patented Dec. 9, 1873.



Attest.
A. Brustman.
L. Seal.

Inventor.
Robert Thomson.
By B. G. Converse
His atty.

UNITED STATES PATENT OFFICE.

ROBERT THOMSON, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. 145,317, dated December 9, 1873; application filed August 11, 1873.

To all whom it may concern:

Be it known that I, ROBERT THOMSON, of the city of Springfield, in the county of Clarke and State of Ohio, have invented a Combined Refrigerator and Elevator for Wells, of which the following is a specification:

My invention relates to a device for preserving food in its raw or cooked state at all seasons of the year, without the use of ice in summer, and in winter keeping it from freezing. It consists in a large tube, (preferably of wood, and of square shape,) closed at the ends, which is inserted perpendicularly in the well through the platform of the same, on which it is suspended by lugs, strips, or other equivalents. It is constructed of inch boards, of sufficient length to make a tube to reach nearly down to the water in the well, where the coldest air is to be found. Its lower end is provided with slots or holes in the sides, for the free circulation of air through it among the articles of food, which are placed in pans in a galvanized-iron frame, which is also of square form, and made to slide freely up and down in the tube, and which rests at the bottom of the same during the process of refrigeration.

Figure 1 is a vertical sectional elevation of my invention, having a part of the plank on one side cut away to show the position of the frame B in the lower end of tube A in the well W; also, the door removed, (above the platform P,) to show the position of the cord *r* and pulleys *p p'*. Fig. 2 shows the lower end section, with its slots *a a* for admitting air.

The tube A, as shown in the drawing, may reach nearly down to the water-line *w*, though it is not absolutely essential, as it only requires that it should reach sufficiently far down into the well to admit air of low enough temperature to preserve the food placed in the frame B. This frame is made of galvanized iron, the corner-posts and cross-bars being bent at right angles. The lower parts of all the cross-bars on each side are bent inward, and, being parallel, (on the four sides,) act as a flange for supporting the pans *b b* placed in them. These pans, as shown, contain the articles of food to be refrigerated. Frame B is provided with a bail, *c*, to which the cord *r* is attached, the latter passing over the pulleys *p* and *p'*, being wound once around the former,

p, before passing over the latter, *p'*, to the weight D, attached at its end. The object of this turn around *p* is in order to allow the machine to be operated by the crank *e*, the turn preventing the cord *r* from slipping. The counter-weight D moves up and down freely in the tube F, which is constructed on the side of A for the purpose. The lower end of F is closed, as well as that of A, so that, in case either end of cord *r* should become detached, or it should break, neither the frame B nor the weight D could fall out into the well. The space A' is covered by a hinged door when the machine is in use, which may be secured by a lock or latch, as desired, the tube A being of sufficient height above the platform P to allow of a door of about the proportion shown, in order to give ample room to withdraw and introduce the frame B and its pans and shelves, when necessary to clean and replace them.

The galvanized material is preferred for the frame on account of its freedom from rust, and it is constructed of the sheet metal to give it the least weight possible.

The operation of my invention will be readily understood by the drawings.

l l are lugs, fastened on the outside of A, to support it on the platform P, and on which it hangs when suspended in the well W. The pulley *p* is placed in a bearing or hanger, so as to let the cord *r* hang as near as possible in the center of tube A. The hole in platform P for tube A will, of course, correspond with a cross-section of the same. The machine should hang near the center of the well as possible, to prevent any access to it from the walls of the well, where there is danger from rats, and the platform and its fitting should be perfectly tight. A pump, C, is shown in the drawing, to show that the refrigerator can be placed alongside of it, and, if desired, can be attached to the upper section of its stock.

I am aware that elevators and dumb-waiters have been used with similar raising and lowering devices, and I do not claim these parts simply for elevating purposes. My invention differs from all ordinary elevators, from the fact that articles of food can only be placed in or taken out at the top part of tube A, its lower end being suspended in the well W, where it cannot be used for other purpose than that of

supporting case B for refrigerating the food therein contained.

I claim—

1. A combined well refrigerator and elevator, for the purpose of preserving food without the use of ice in summer and from freezing in winter, consisting of a tube or pipe projected into a well to a sufficient depth to reach the cold air near the water, and having its sides pierced with openings near the lower end to allow air to circulate freely among the articles of food contained in a case or frame suspended in the same, substantially in the manner shown and described.

2. Tube A, with its lugs *l l* and slots *a a*,

constructed and arranged substantially as shown and described.

3. In combination with tube A, with its smaller tube F, lugs *l l*, slots *a a*, cord *r*, pulleys *p p'*, and crank *e*, frame B, with its pans *b b b* and bail *c*, substantially as shown and described.

4. In combination with the platform P of the well W, the tube A, with its lugs *l l* and slots *a a*, substantially as shown and described, as and for the purpose hereinbefore set forth.

ROBERT THOMSON.

Attest:

B. C. CONVERSE,
LEMON POOL.