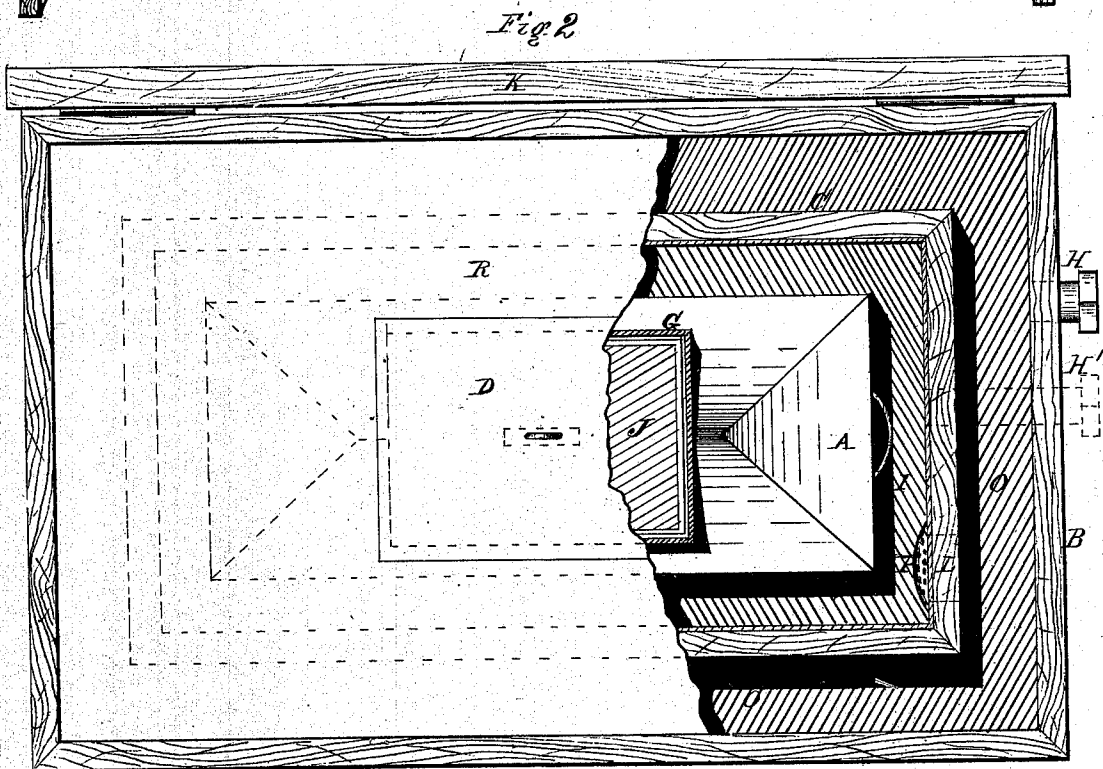
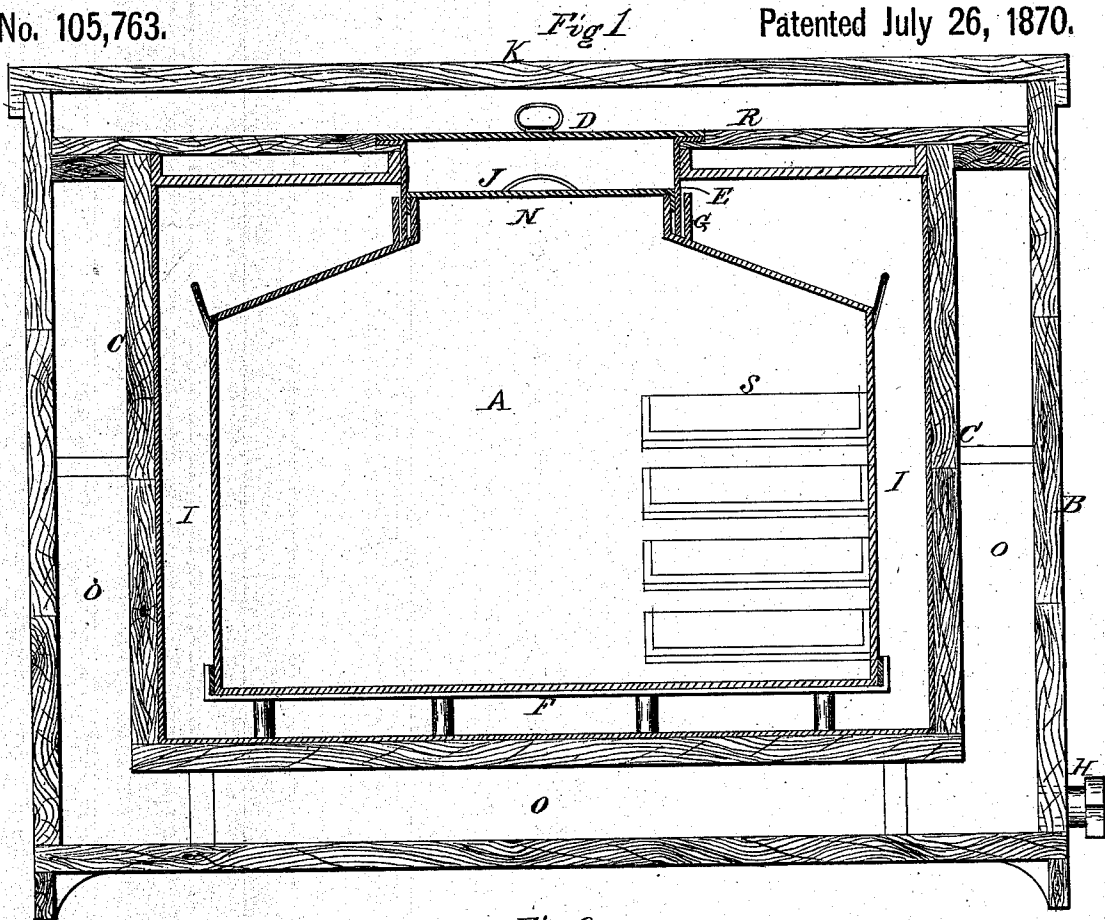


I. ALLEGRETTI.

Refrigerator.

No. 105,763.

Patented July 26, 1870.



Witnesses. { Frank Stout  
Isaac R Oakford.

Symon Allegretti.  
Cpr. C. H. Evans.  
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# United States Patent Office.

IGNAZIO ALLEGRETTI, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 105,763, dated July 26, 1870.

## IMPROVEMENT IN REFRIGERATOR.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, IGNAZIO ALLEGRETTI, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Refrigerators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

✓ The object of my invention is to construct a refrigerator whereby an intense degree of cold is produced with a small quantity of ice and certain chemicals combined therewith, so that perishable articles placed in it are retained in a frozen state, and water, when placed within it, will freeze and form solid ice. Thus the refrigerator will form its own ice after being once filled, and is so regulated that the quantity will be sufficient for daily consumption, and supply the necessary amount to retain a uniform low temperature.

✓ Figure 1 is a vertical section of my improvement in refrigerators.

Figure 2 is a top view of same, with its cover opened and a portion of the inside broken away in order to show the interior.

✓ To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

✓ The refrigerator consists of a metallic chamber, A, made in any suitable form, and provided in the interior with a series of shelves, S, placed one above another.

The said chamber is deposited in the interior of a metal-lined wooden case C, and is supported on a frame, F, the case being made somewhat larger, so as to form a surrounding ice-space, I.

The case C is inclosed in an outer casing or box, B, of larger dimensions, with the intervening space, O, filled with any non-conducting material, or allowed to remain vacant, so as to permit of a free circulation of air.

Resting on the upper edge of the case C, and fitting closely against the inner sides of the box B, is a cover, R, provided in the center with an opening, in which is fitted a metallic or wooden frame, E.

The lower edges of the said frame rest on the top of the chamber A, and is closed by means of the cover D.

✓ The chamber A is provided at its upper part with an opening, N, the cover J of which passes down through the frame E, and fits perfectly air-tight over the opening.

This part of the chamber is also provided with a rim or flange, G, which surrounds the outside of the frame, so as to assist in forming a tight joint, and allow for the passage of any water which may accumulate on the outside of the cover J.

✓ In the lower part of the case C is formed an opening, L, which communicates with the space O, and is covered by means of a perforated plate, P, made

so as to be easily removed when it becomes necessary to clean it and open the perforations

The said opening is used when the space O remains vacant, and allows the water caused by the melting of the ice to pass into the lower part of it, from whence it is drawn off at intervals through the pipe H, secured in the box B, this pipe being supplied with a screw-cap, cock, or any suitable device.

✓ When the space O is filled, a pipe, H', is passed from the outside of the box B, and connects with the ice-space I, so that the waste water will pass through it.

✓ The upper part of the box B is closed by means of a tight-fitting cover, K, which may have an opening made in it directly over the inside cover, D, so that communication may be had with the interior of the chamber A without raising the cover K.

✓ By the arrangement of the frame E, as above described, the covers J and D may be removed without exposing the ice placed in the space I to a warmer atmosphere.

✓ If desired, an opening can be made in the side instead of on top of the refrigerator, and inclosed in the same manner with the frame E and covers J and D. (The covers in this case are supported on hinges.)

✓ The points in the covers are all made perfectly airtight, by means of flannel or rubber strips placed around their edges.

✓ The operation is as follows:

Provisions, fruits, confections, and other perishable articles may be placed in the interior of the chamber A, (and, when necessary, separate compartments may be provided for the purpose,) and the space I filled with ice and salt, so that the entire surface of the chamber will be exposed to it, thus producing a very low temperature in its interior, and freeze the articles placed therein, and if water is placed in the pans S at the time of inserting the other articles, it will be frozen into solid ice.

✓ If it is desired to produce an intense degree of cold in a very short time, chemicals are employed in combination with the ice and salt, although I do not claim them.

✓ What I claim as my improvement in refrigerators, and desire to secure a patent for, is—

1. The case C, provided with frame E and covers D and K, in combination with chamber A, provided with cover J and rim or flange G, and having intervening ice-space I, all constructed and arranged as herein shown and described.

2. In combination with the above, the outer box B, provided with cover K, as and for the purpose specified and shown.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

Witnesses: IGNAZIO ALLEGRETTI.

ISAAC R. OAKFORD,  
FRANK STOUT.