(No Model.)

J. M. HARNEY.

REFRIGERATOR.

No. 349,253. Patented Sept. 14, 1886.

Fig. 1.

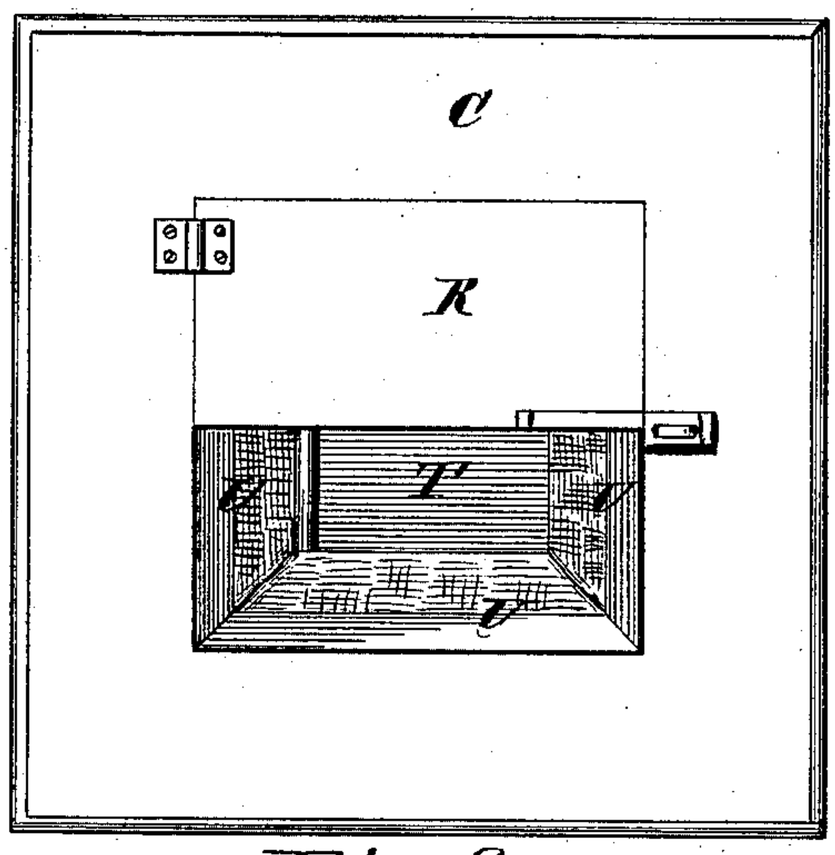


Fig. 2.

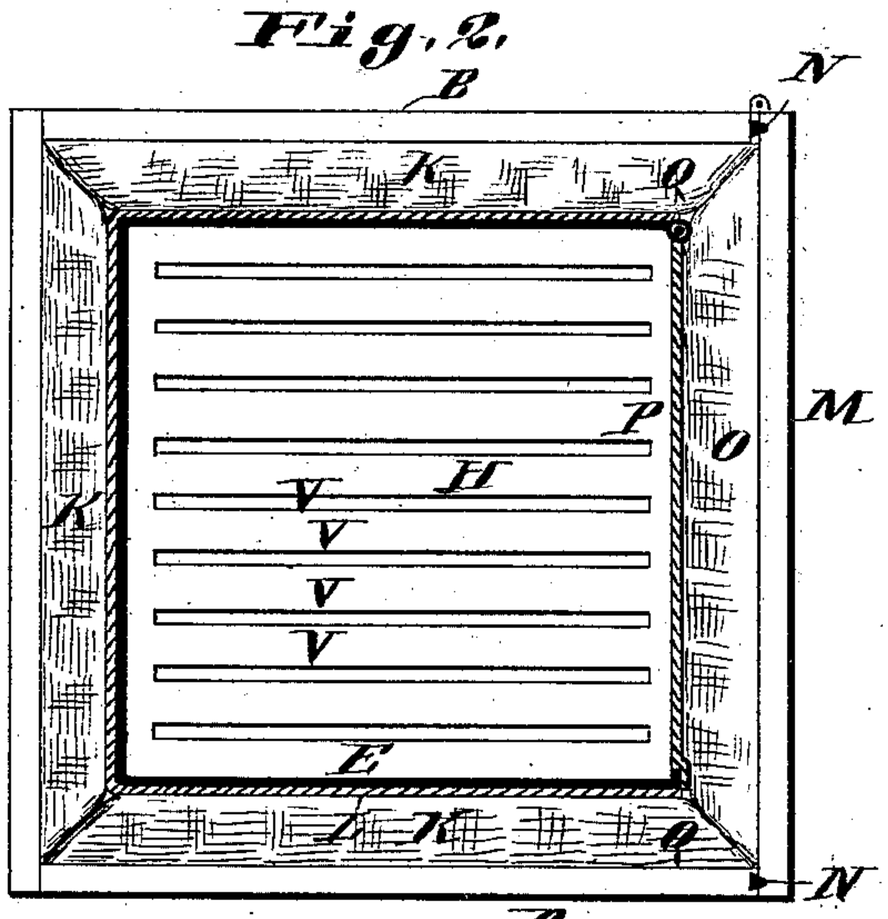


Fig. 3

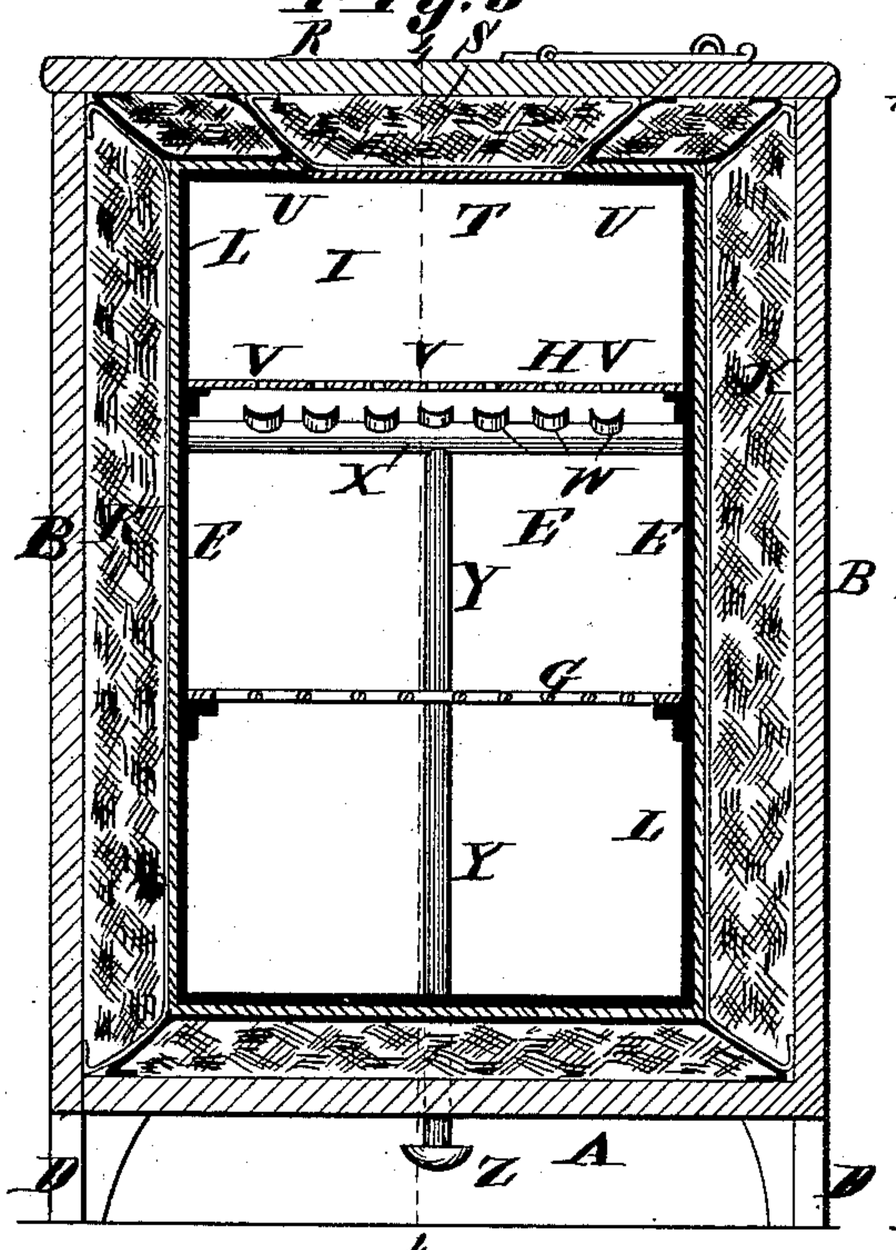
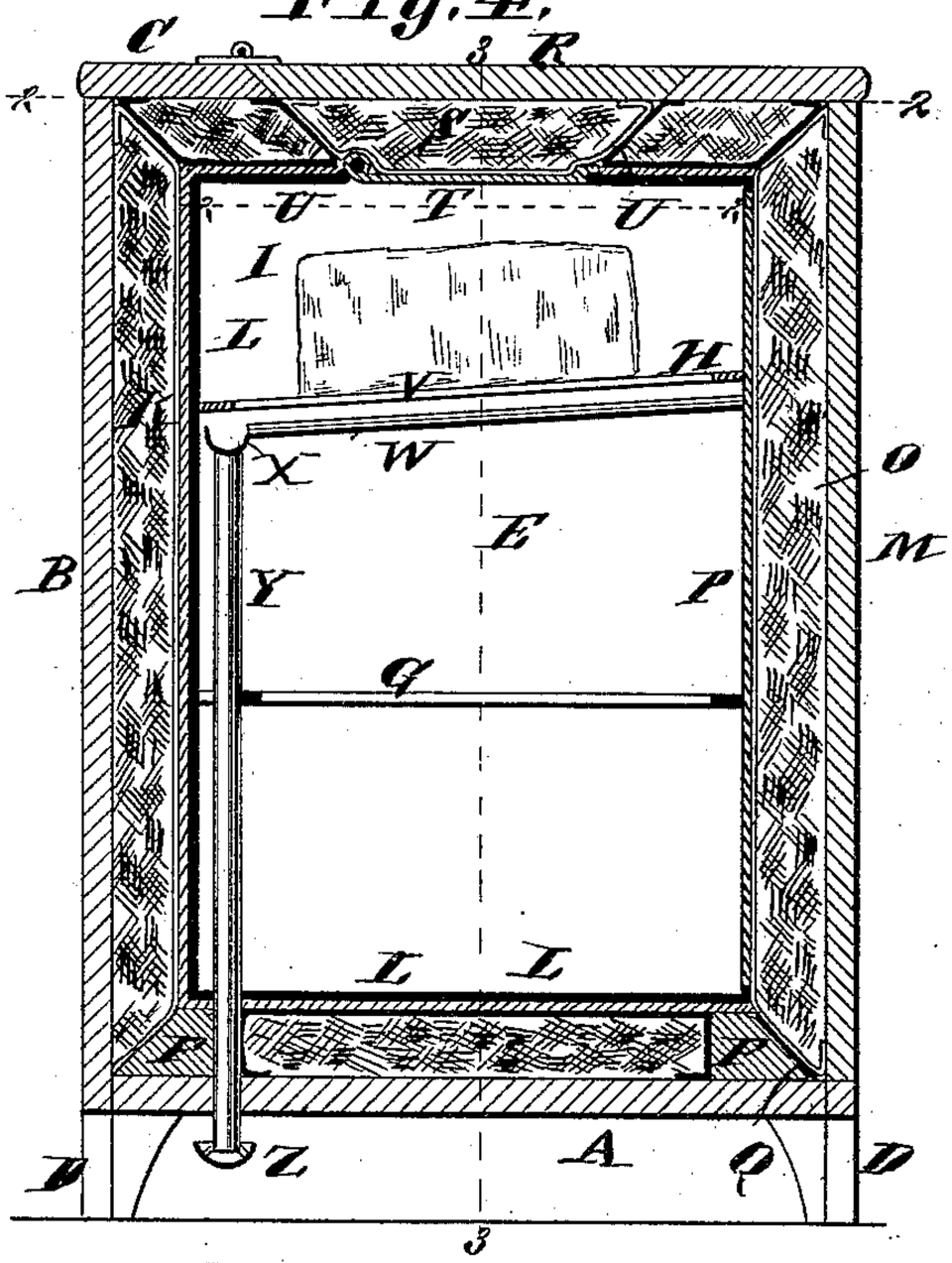


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN M. HARNEY, OF FLORISANT, MISSOURI.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 349,253, dated September 14, 1886.

Application filed July 11, 1884. Serial No. 137,470. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. HARNEY, of Florisant, St. Louis county, in the State of Missouri, have invented a certain new and useful Improvement in Refrigerators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a top view with part of the outer door cut away and the packing-cushion removed. Fig. 2 is a horizontal section at jogged line 2 2, Fig. 4. Fig. 3 is a vertical section at 3 3, Fig. 4. Fig. 4 is a vertical section at 4 4, Fig. 3.

The refrigerator has an outer case, of which A is the bottom, B the sides, and C the top. This case may be made of wood or other suitable material.

D are supporting-legs.

E is an inner case, which I propose to make of zinc or galvanized iron. This may be supported on blocks F or by other means. The inner case gives support to the shelf or shelves G and to the floor H of the ice-chamber I.

Between the metal case E and the feather packing K, I prefer to place a lining or stratum, L, of paper, felt paper, or asbestus, which is spread over the whole of the interior surface of the cushions. This lining L acts to prevent the passage of moisture to the feathers, and also acts as a non-conductor of heat.

The front of the outer case is composed of a hinged door, M, which I prefer to make with a tight joint by means of a rubber rib, N, let into the door or the sides, as shown, so that its pressure against the other part shall serve to prevent the passage of air. Upon the inside of the door is a cushion, O, which is secured to the door around the periphery of the cushion, and which fills the whole doorway when the door is closed.

P is an inner door, which I prefer to make of metal, and which is hinged to the inner case, E, and forms the front wall of the inner case when closed. When the two doors M and P are closed, the cushion O is compressed between them and expanded laterally, so that its edges fit tightly against the edges Q of the doorway, and thus no air can pass between the edge of the cushion and the case at Q.

Access may be had to the ice-chamber I through the doorway of doors M P, or through a doorway in the top closed by doors R and T and an interposed cushion, S, which is compressed between the two doors, as before described, referring to cushion O, and thus made to form a tight joint between the edge of the cushion and the sides U of the doorway.

The doors M and R may be held shut by spring-catches or by any other means.

The floor H of the ice-chamber I is made with slots V, to allow the water and cold air to descend into the chamber beneath and the warmer air to ascend into the ice-chamber. Beneath each slot is an inclined trough, W, which receives the drip from the slot and conveys the water to a trough, X, discharging through a vertical pipe, Y, and trap Z into a vessel beneath, as usual.

I propose to apply the improvement to water-coolers in substantially the manner described—that is to say, the packing of the walls with feathers and forming the cover with a cushion compressed between two disks or lids, to prevent the passage of air around the edges of the cover and as a non-conductor of heat.

I claim—

1. A refrigerator consisting of an outer case, A B C, having side door, M, and lid R, inner case, E, supported off the bottom of the case, and having side door, P, and lid T, feather cushions occupying the chambers between the inner and outer case, and non-conducting lining L, enveloping the inner case, substantially as set forth.

2. In a refrigerator, the combination, with the outer case, of an inner case, an inclined floor, H, having slots V, the inclined troughs W, in line with and beneath the slots, a trough, X, at the lower end of the inclined troughs, transverse of the latter, and a pipe, Y, having a trap, Z, substantially as set forth.

JOHN M. HARNEY.

Witnesses:
SAML. KNIGHT,
GEO. H. KNIGHT.