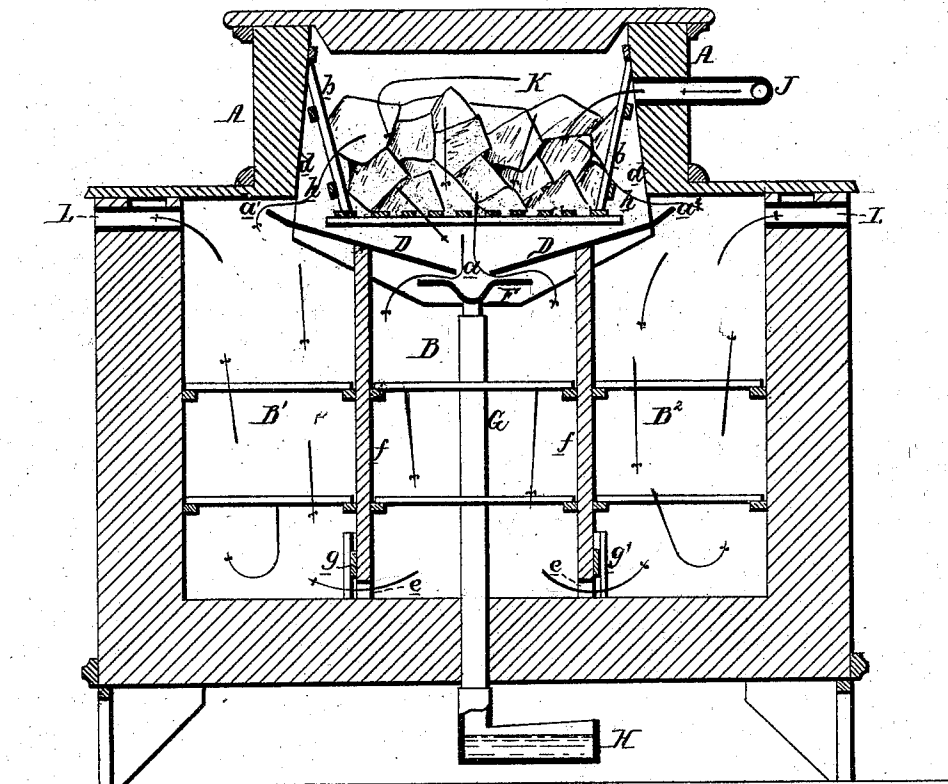


J. G. SELTZER & A. J. FINK.

Refrigerators.

No. 134,937.

Patented Jan. 14, 1873.



Witnesses, Harry Smith
Thomas W. Shains

John George Seltzer
and Andrew J. Fink
by their Attys.
H. W. H. and Son.

UNITED STATES PATENT OFFICE.

JOHN GEORGE SELTZER AND ANDREW JACKSON FINK, OF READING, PA.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. 134,937, dated January 14, 1873.

To all whom it may concern:

Be it known that we, JOHN GEORGE SELTZER and ANDREW JACKSON FINK, both of Reading, Berks county, Pennsylvania, have invented an Improved Refrigerator, of which the following is a specification:

The object of our invention is to create and maintain a constant circulation of cold air through the provision-chambers of a refrigerator with the use of a comparatively small quantity of ice, and to maintain a dry and pure atmosphere within the said chamber. We accomplish this object by constructing the refrigerator in the manner plainly shown by the sectional view in the accompanying drawing, which we will now proceed to describe.

The ice-box A is located at the top of the refrigerator and immediately above the provision-chambers B, B¹, and B², of which there are three in the present instance, all communicating freely with the space beneath the ice-box through apertures *a*, *a*¹, and *a*² in a double-inclined drip-catcher, D, the water from which falls through the central and lowest aperture *a* into a trough, F, and is carried off from the latter through a pipe, G, into a pan H, beneath and outside the refrigerator. External air, under pressure or not, as may be thought advisable, is admitted into the ice-box A through a pipe, J, and, after being cooled by immediate contact with the ice, which is contained in a slatted cage, K, having sides *b* inclined in a direction contrary to that of the inclined sides *d* of the ice-box, passes through the apertures *a*, *a*¹, and *a*² into the provision-chambers, and descends into the bottom of the same, as indicated by the arrows, the air from the central chamber B passing through openings *e* at the bottom of the partitions *f* into the side chambers B¹ and B², and, after rising to the top of the same, passing off finally through the discharge-tubes L. In this way a continuous circulation of cold air is maintained in the provision-chambers, the currents not only cooling the chambers, but preventing the fouling of the same and the accumulation of dampness therein, which are the great objections to ordinary refrigerators.

The inlet and outlet pipes J and L may, if desired, be provided with valves or dampers for regulating the currents and the volume of air to be admitted and discharged.

As it may not always be necessary to use all of the provision-chambers at one time, the openings *e* are provided with slides or valves, by closing which communication with either or both side chambers may be cut off. For instance, if the chamber B¹ is not required, communication between it and the central chamber is cut off by closing the valve *g*, when the cold air will circulate through the chambers B and B² only, and the latter chamber may be cut off in like manner by closing the valve *g*¹.

The inclining in opposite directions of the sides or ends *b* and *d* of the slatted ice-cage K and box A, so as to form an intervening space, *h*, widest at the bottom, is an important feature of our invention, for a full and uninterrupted passage for the cooled air from the sides of the slatted cage to the apertures *a*¹ and *a*² is thus obtained, the greater portion of the air which passes through the bottom of the cage escaping through the central aperture *a*.

We claim as our invention—

1. The combination, with the cage having inclined sides, of the box A, the sides of which are inclined in an opposite direction from those of the cage, as set forth.

2. The combination, substantially as described, of the said ice-box and cage with the drip-catcher D and the apertures *a*, *a*¹, &c., by which communication is established between the said ice-box and a series of provision-chambers.

3. The adjoining provision-chambers B, B¹, &c., communicating with each other at the bottom through openings provided with valves or slides *g*.

4. The combination, substantially as described, of the inlet and outlet pipes J and L with the elevated ice-box A, its cage K, the deflecting drip-catcher D, and communicating provision-chambers B.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN GEORGE SELTZER.
ANDREW JACKSON FINK.

Witnesses:

FREDERICK H. PHILLIPPI.
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