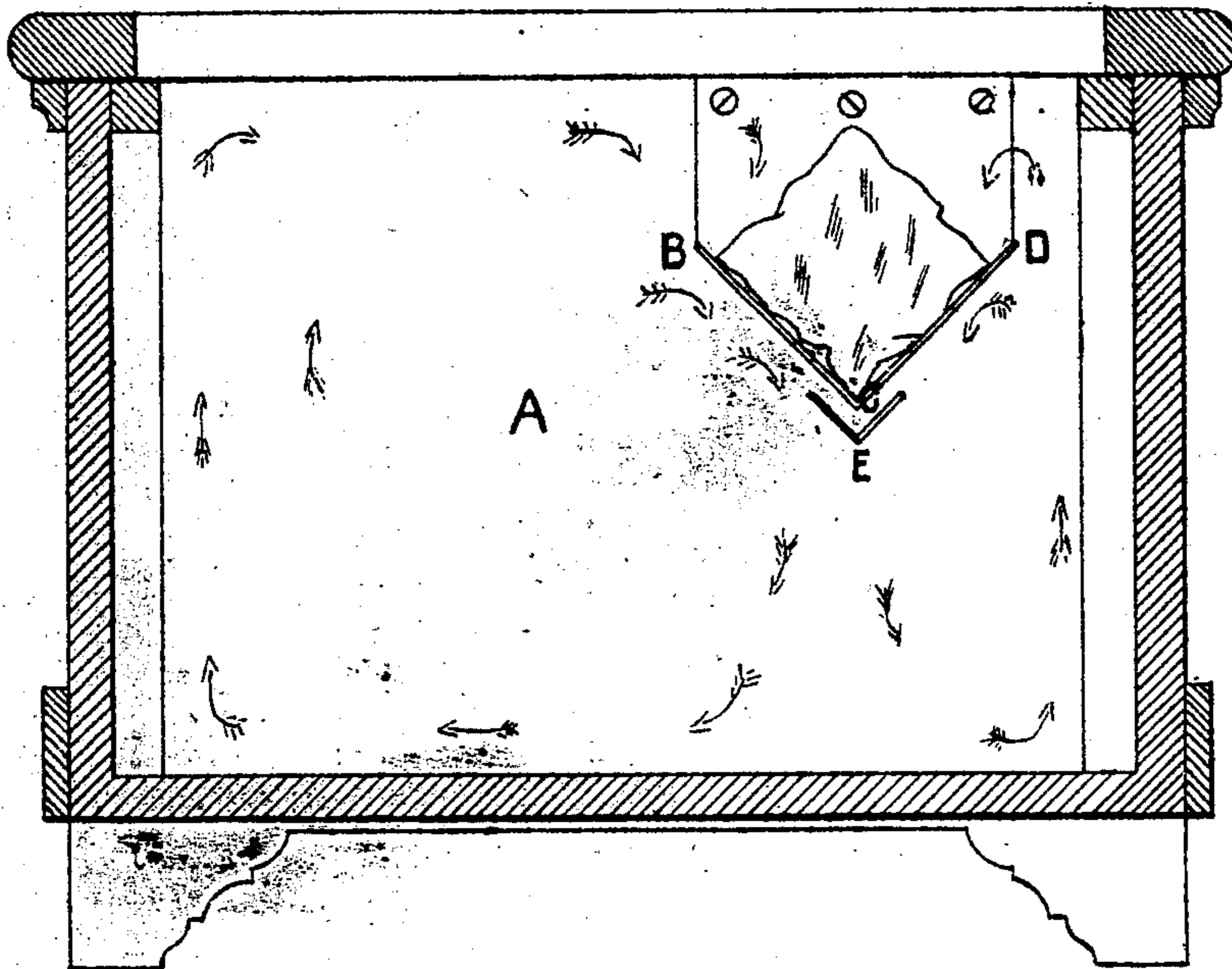


ANDREW J. CHASE.

Improvement in Refrigerators.

No. 121,751.

Patented Dec. 12, 1871.



WITNESSES

Frank G. Parker  
Thomas G. Kimball

INVENTOR

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# UNITED STATES PATENT OFFICE.

ANDREW J. CHASE, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. 121,751, dated December 12, 1871.

*To all whom it may concern:*

Be it known that I, ANDREW J. CHASE, of Boston, county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification:

My present invention is an improvement on the inventions described in the specifications of Letters Patent granted to me for refrigerators, dated December 13, 1870, and March 14, 1871; and consists in arranging within the refrigerating-chamber a metallic ice-trough, having its sides at right angles to each other, and inclined at forty-five degrees from the perpendicular, so that the square blocks of ice, when placed therein, have all of their edges standing at an angle of forty-five degrees to the horizon. The metallic trough is so located that air may flow freely about it. The object of my invention is to increase, in the most natural and economical manner, the circulation of air within the refrigerating-chamber.

The drawing represents a vertical section through my improved refrigerator, cutting the ice-trough at right angles.

The walls of my refrigerator may be made in any of the approved methods, and be provided with any desirable number and kinds of shelves, doors, &c. My invention is involved in the ice-trough B C D and its arrangement. The metallic trough is constructed of thin plates C B and C D, inclined to each other at an angle of ninety degrees, and inclined to the horizon at an angle of forty-five degrees, as shown. The lower angle C may contain perforations, so that the water from the melting ice may fall into the drain E; or a small channel may be formed at the angle C,

for the purpose of conducting the water directly from the trough. The drain E catches the water of condensation from the sides C D and C B. The ice-trough B C D may be suspended in any desired manner. It is essential only that the air have a free passage around and about it.

The utility of my invention in causing currents of air may be explained thus: The two lower sides of the ice resting upon the metallic sides C B C D cool the same to about the ice temperature; and as these sides are inclined, air will flow down the same as it is cooled. The upper sides of the ice also form inclines, down which the air will flow; hence it can be seen that by my arrangement the cooling-surfaces presented are all inclined, thus offering no levels against which air may rest; therefore it must continue to flow, thus causing nearly even temperature throughout the refrigerator.

The advantage is its extreme simplicity and completeness. I obtain all of the results claimed for refrigerators having complicated systems of air-passages, partitions, &c., and yet dispense with everything except the single box or trough B C D and the drip-pan E.

I claim as my invention—

The metallic ice-trough B C D, having its sides B C C D at right angles to each, and inclined as shown, so located within the chamber as to allow of a free circulation of air about it, substantially as described and for the purpose set forth.

ANDREW J. CHASE.

Witnesses:

FRANK G. PARKER,

FRANK H. NUTTER.

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