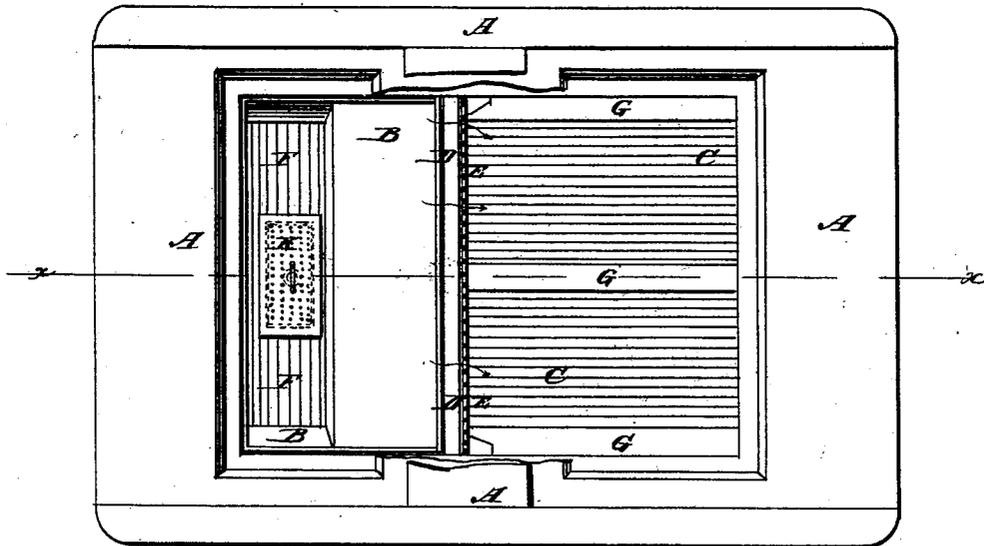
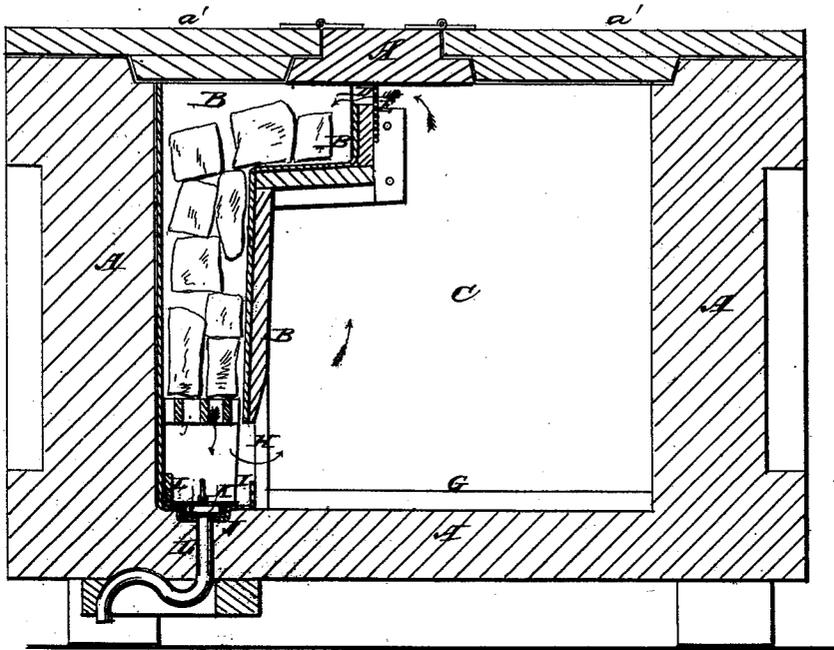


J. C. BOWEN.
Refrigerator.

No. 221,771.

Patented Nov. 18, 1879.

Fig. 1.



WITNESSES:

Francis McArdle.
C. Sedgwick

Fig. 2.

INVENTOR:

J. C. Bowen
BY *Alum H.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES C. BOWEN, OF MANDARIN, FLORIDA.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **221,771**, dated November 18, 1879; application filed July 2, 1879.

To all whom it may concern:

Be it known that I, JAMES C. BOWEN, of Mandarin, in the county of Duval and State of Florida, have invented a new and useful Improvement in Refrigerators, of which the following is a specification.

Figure 1 is a vertical longitudinal section of the refrigerator, taken through the line *x*, Fig. 2. Fig. 2 is a top view of the same, the top being broken away to show the construction.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved refrigerator for shipping strawberries and other perishable fruits, which shall be simple in construction and convenient and effective in use, and which shall be so constructed that pieces of ice cannot be jarred out of the ice-box to fall upon the fruit, that the waste-pipe cannot become clogged, and that will compel the cold air to pass beneath the crates, as hereinafter fully described.

The invention consists in a refrigerator whose inner wall is beveled at the lower end, and which is provided with bottom cleats and vertical posts, the whole combined to prevent the crates from interfering with the air-circulation, as hereinafter described.

A represents the case of the refrigerator, which is designed to be made with double walls, and to have paper or other suitable non-conducting material placed in the spaces between the said walls.

B is the ice-chamber, which is lined with zinc, extends nearly to the bottom of the refrigerator, and is made with an offset into the store-room C at its upper part. The inner wall of the ice-chamber B does not extend quite to the top of the refrigerator, a space, D, being left for the passage of warm air from the store-room C into the said ice-chamber B to be cooled. To the wall of the ice-chamber B, and to the top of the refrigerator A, is attached a strip, E, of wire-gauze, to cover the space D and prevent any pieces of ice from falling or being jarred or shaken into the store-room C. The bottom of the ice-chamber B is open, and in it is placed a grate, F, for the ice to rest upon, and which is supported from

the bottom of the refrigerator A, so that the cold air from the ice-chamber B can pass freely from the said ice-chamber B to the lower part of the store-room. The lower part of the outer or store-room side of the inner wall of the ice-chamber B is inclined or beveled, as shown in Fig. 1, so that the cold air can readily pass in beneath the crates placed in the said store-room.

To the bottom of the store-room C are attached cleats G for the lower tier of crates to stand upon, so that the cold air can pass in beneath their bottoms.

To the bottom of the refrigerator A, and to the lower part of the inner wall of the ice-chamber B, are attached posts H, to support the said ice-chamber and to prevent the lower crates from sliding in beneath the said ice-chamber.

To the bottom of the refrigerator A, beneath the bottom of the ice-chamber B, is attached a large pan, I, to receive the water as it drips from the melting ice.

In the middle part of the drip-pan I is formed an opening, and in a recess in the bottom of the refrigerator A is formed a recess to receive a small drip-pan, J, which is covered with a perforated cover or grate, K, to prevent any rubbish from getting into the small pan J and clogging its discharge-orifice.

With a discharge-orifice in the bottom of the small pan J is connected the end of the waste-pipe L, which is bent so as to form a trap, to prevent any air from entering the refrigerator through the said waste-pipe L.

The top of the refrigerator is provided with two doors, *a'*, to give access to the ice-chamber B and to the store-room C.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, in a refrigerator, of the inner wall, B, beveled at the lower end, the bottom cleats, G, and the vertical posts H, to prevent the crates from interfering with the air-circulation, as set forth.

JAMES COLMAN BOWEN.

Witnesses:

J. HENRY KILBOURNE,
CHARLIE DOWNS.