(No Model.)

2 Sheets—Sheet 1.

J. CASTELL.

REFRIGERATOR.

No. 326,952. Patented Sept. 29, 1885.

Fig. 1.

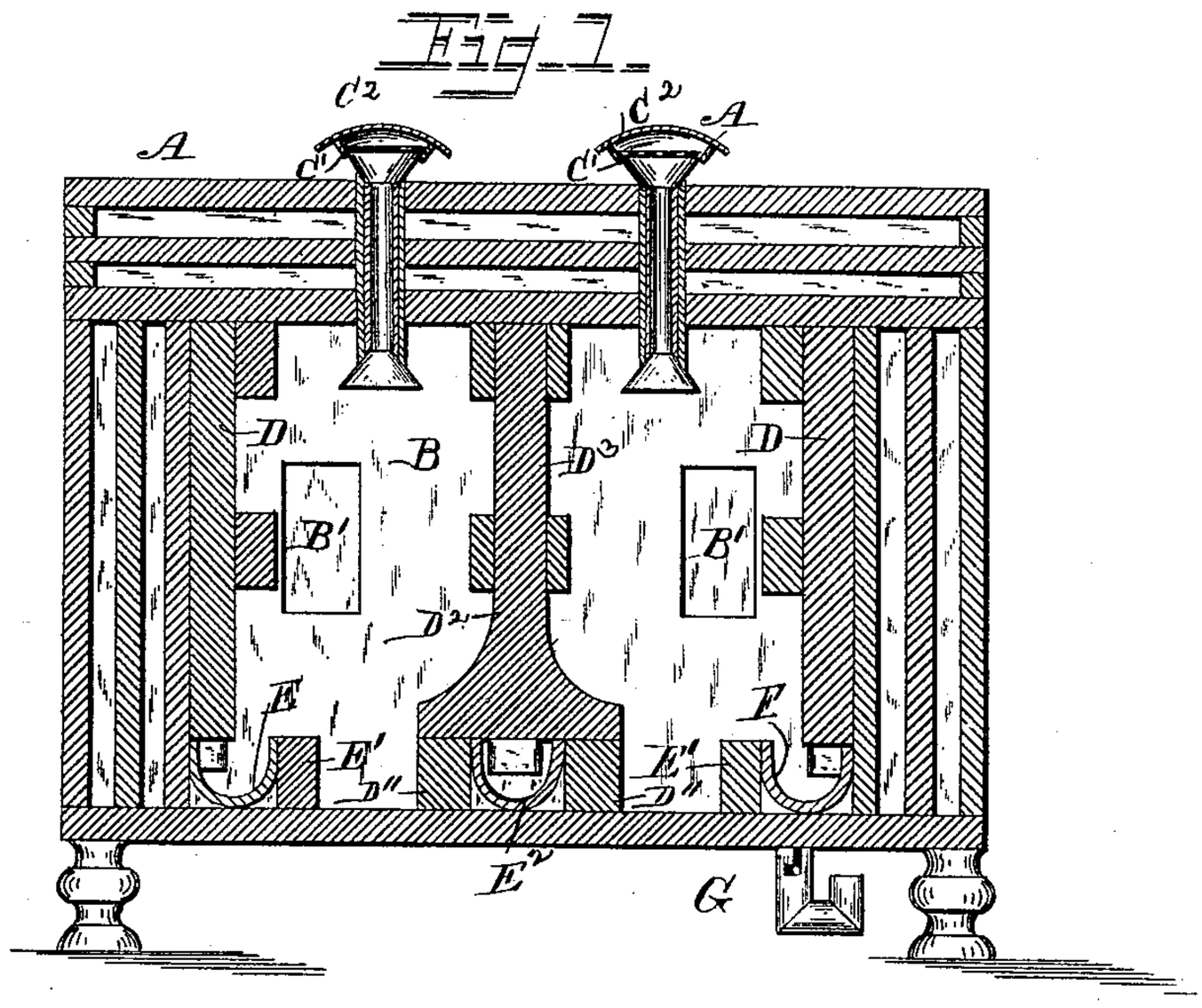


Fig. 2.

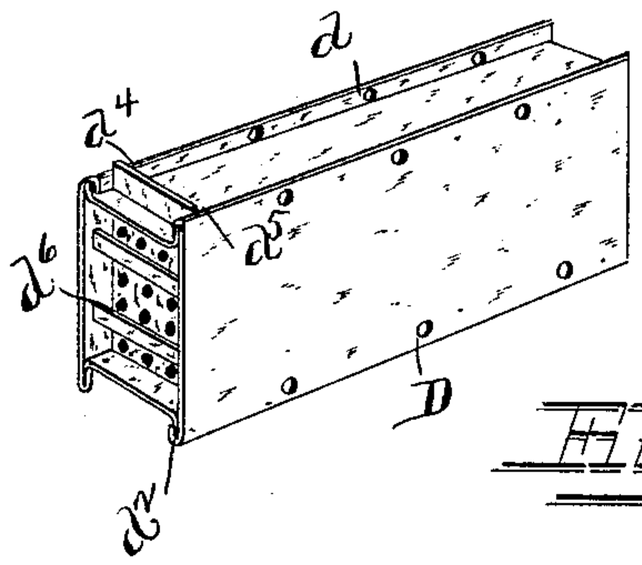


Fig. 3.

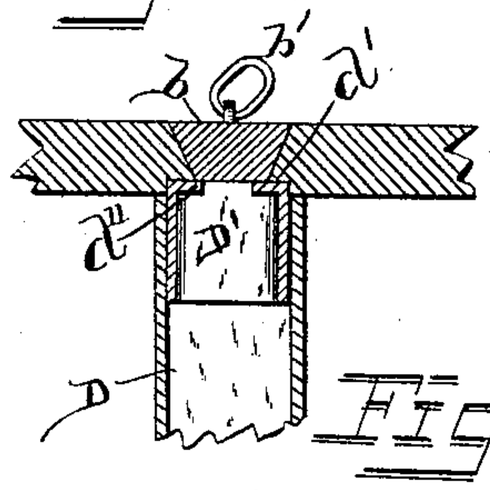


Fig. 8.

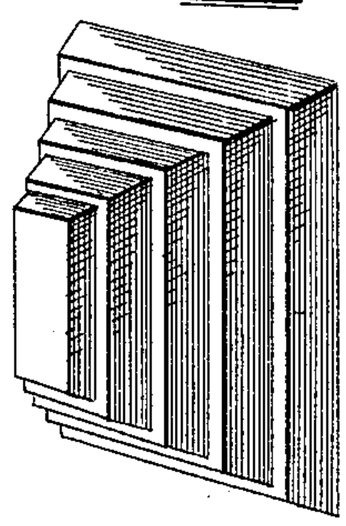
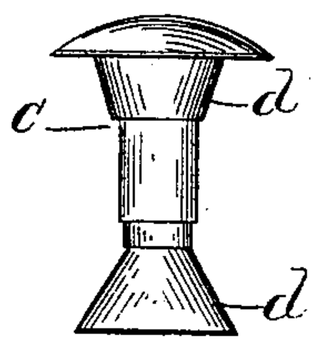


Fig. 4.



WITNESSES.

K. J. Schneider.

Thos. D. McGill.

INVENTOR.

James Castell

By Myers & Co

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

J. CASTELL.

REFRIGERATOR.

No. 326,952. Patented Sept. 29, 1885.

Fig. 5.

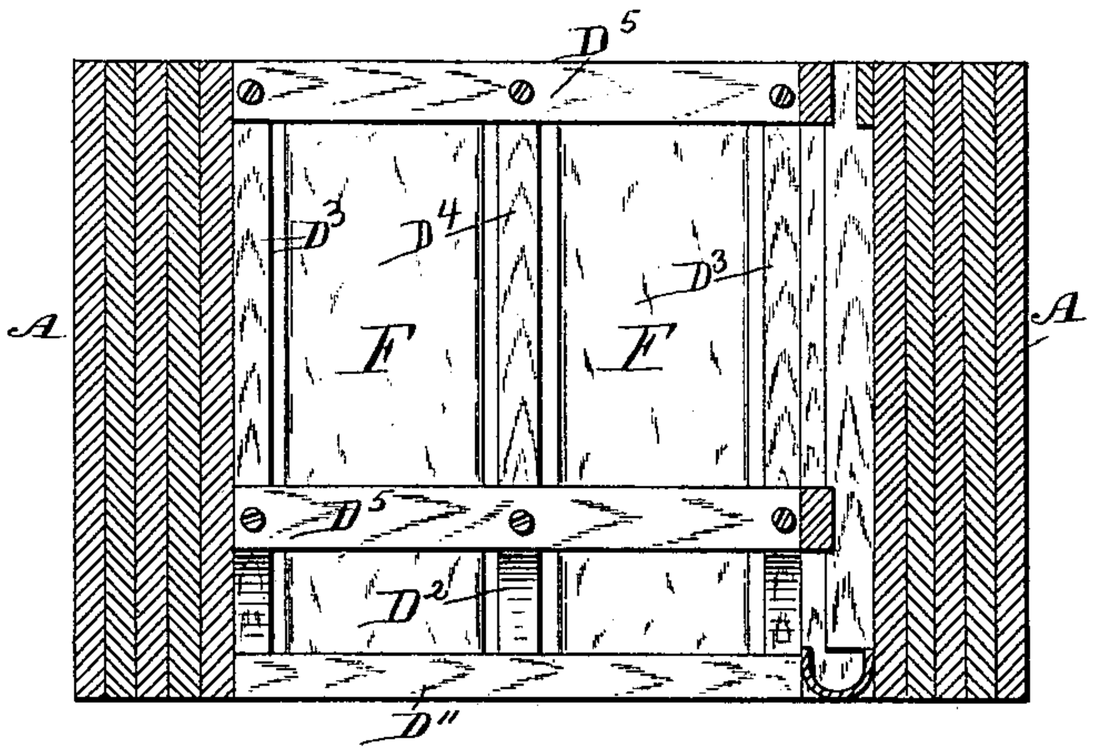


Fig. 6.

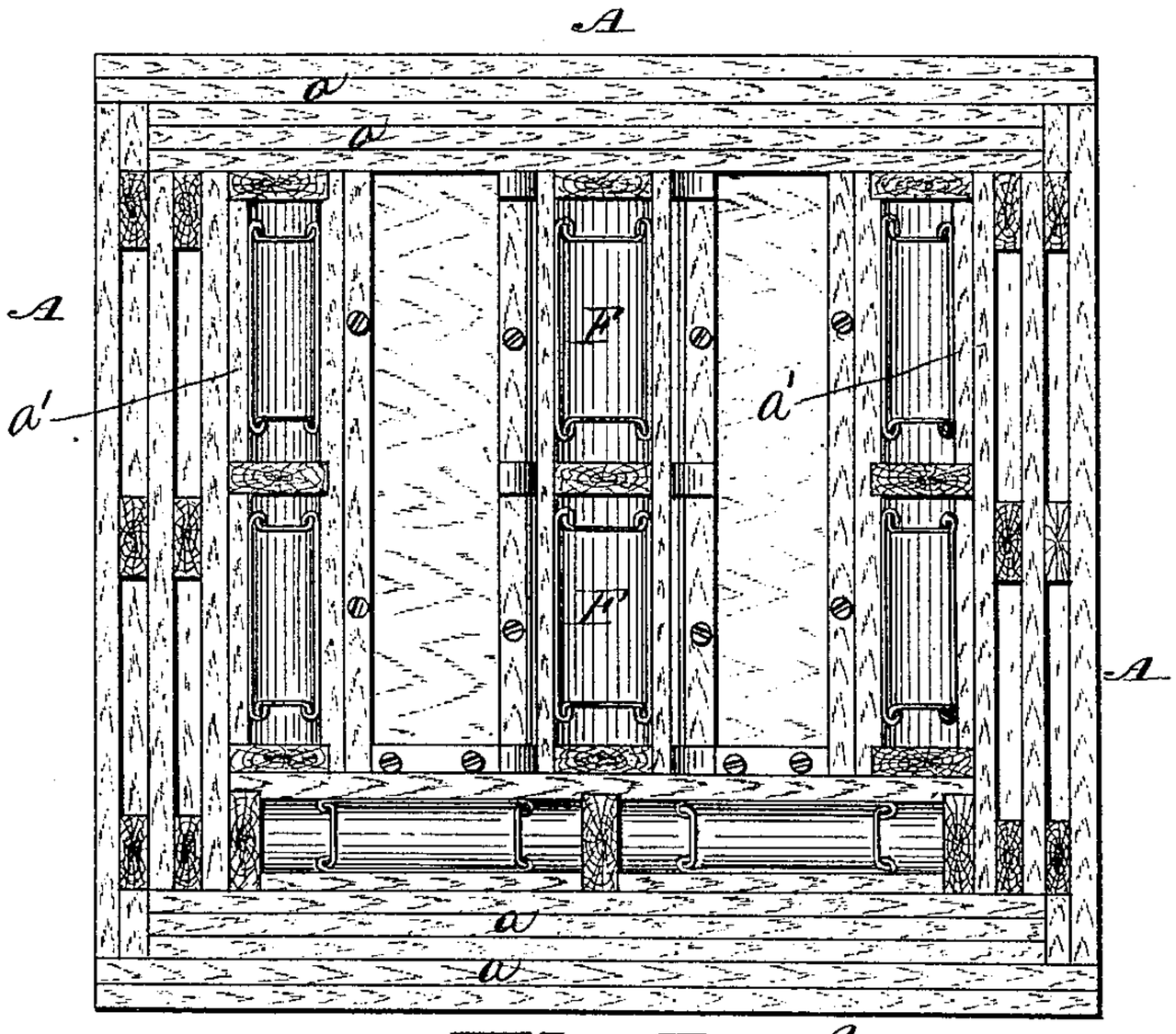


Fig. 7.

WITNESSES

H. J. Schneider.

J. Holdmoll.

INVENTOR

James Castell

By Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES CASTELL, OF BLUE RAPIDS, KANSAS.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 326,952, dated September 29, 1885.

Application filed December 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES CASTELL, a citizen of the United States of America, residing at Blue Rapids, in the county of Marshall and State of Kansas, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in refrigerators; and it consists in the peculiar construction, combination, and arrangement of the parts, substantially as hereinafter more fully shown and described.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of my refrigerator. Figs. 2, 3, and 4 are detail views thereof. Fig. 5 is a cross-section of the same on the line *x x*. Fig. 6 is a plan view with the cover removed, and Figs. 7 and 8 are also detail views.

In the construction of my refrigerator I provide corresponding dead-air walls, A, the intermediate narrow longitudinal wooden strips *a* being interposed at top and bottom thereof; but in Fig. 6 these strips are removed on the lateral sides to more clearly show the construction of the walls.

The cover A′ of the refrigerator B is constructed and rendered a non-conductor of heat on the same principle as its walls, and it is provided with a series of lids, *b*, having secured thereto the lifting-rings *b′*, which lids are disposed immediately over the ice-boxes and the storage-chambers, to render the same conveniently accessible without exposing the residue of the refrigerator-chamber to ingress of warm atmosphere. The cover A′ has also secured in vertical orifices therein provided the ventilators C, one or more being disposed over each storage-chamber. These ventilators are designed to admit escape of any hot or impure air or animal-heat which may be generated in the refrigerator, while not interfering with the requisite temperature, and excluding ingress in quantity of the outer atmosphere. The ventilators C are made in two sections, and consist in part of two cylinders, the lower one of which is telescoped into the upper one, and the latter is projected through and secured in an orifice in the refrigerator-cover. Each of these cylinders terminates at its exposed end in a funnel, the outer funnel having secured therein by ordinary means a fine sieve or foraminated plate, C′, and having soldered or otherwise secured thereto a cap, C^2, which protects the sieve, air-valves, and storage-chambers from falling dirt or dust.

The metallic ice-receptacles D are constructed in two sections, as shown in Fig. 3, the upper section thereof, D′, having formed upon its upper edge a continuous shoulder, *d′*, which is inserted in a corresponding recess, *d″*, formed on the inner edge of the interior wall of the lids of the refrigerator-cover and there rigidly secured, its lower section, D, into which it is fitted, being constructed slightly larger than the upper section, to admit its insertion therein. The shoulders *d′* are designed to prevent water leaking through the cover when the refrigerator is exposed. The principal section of each ice-receptacle (see Fig. 3) is provided with longitudinal vertical flanges riveted and soldered and apertured at d^2, for securing the same to the walls of the refrigerator, and also near the bottom with a slot, d^4, for the reception of the foraminated slide d^5, which has its bearings thereon, and cross-bars d^6. By means of this foraminated slide the ice-receptacle may be readily cleansed from refuse collected in the bottom thereof from melted ice.

The letter *a′* represents wooden strips which are secured flush with the upper part of the inner walls of the refrigerator, and against which the upper end of each ice-receptacle is secured, in order that the air may fully surround the ice-receptacles beneath said strips and its temperature be thereby additionally lowered. As the ice-receptacles are constructed in sections, one or more of the sections D may be removed to increase the storage area when their employment is non-essential for cooling purposes. The ice-receptacles are arranged above the metallic drains E, which drains are protected by the cleats or strips E′, which are secured to the floor of the refrigerator.

The drain-gutter E^2 of the central ice-receptacles, F, empties into and is a continuation of the draining-gutter E of the ice-receptacles, which are disposed against the inner walls of the refrigerator, and thus all of the melted ice-water as it drips from the ice-receptacles is carried off through the drain-pipe G.

The drain-pipe G is arranged to project out from the bottom of the refrigerator or car, and

its lower section is packed with any suitable porous non-conducting substance. It is constructed in two sections, which are secured together by a bayonet-slot, *e*, and pin *f*, to enable removal of the lower section at intervals for the purpose of cleansing the same of sediment as it therein collects.

The central ice-receptacles, F, are disposed in ice-receptacle frame D^2, which frame consists of the lateral standards D^3 and the central standards, D^4, each of said standards being greatly widened and enlarged at its base, as shown, and connected together by the horizontal cross-bars D^5. On either side of the central standard, D^4, is disposed an ice-receptacle, (see Fig. 5,) constructed in all respects as the others. These ice-receptacles thus arranged and secured may, when not required as auxiliaries in the cooling process, be removed with the frame D^2, in order to enlarge the storage area of the refrigerator. The broadened or enlarged base of the standards are designed to support the frame D^2 and its contents in a vertical position when arranged in position in the refrigerator resting on cleats or strips D″.

The doors of the refrigerator B (see Fig. 8) are each provided with dead-air walls corresponding in construction to those of the refrigerator.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a refrigerator, a ventilator, C, constructed in sections and provided with a fine sieve or foraminated plate, C′, and a cap, C^2, substantially as shown, and for the purpose described.

2. The combination of the ice-receptacle frame D^2, supported on cleats or strips D″, provided with shoulder *d*′, and ice-receptacles D, having section D′, substantially as shown, and for the purpose described.

3. In a refrigerator, the drain-pipe G, composed of two sections and having slot *e*, and pin *f*, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES CASTELL.

Witnesses:

BRUTUS CROOKE,

J. R. YOUNG.