(No Model.)

S. DICKINSON.

REFRIGERATOR.

No. 568,312. Patented Sept. 22, 1896.

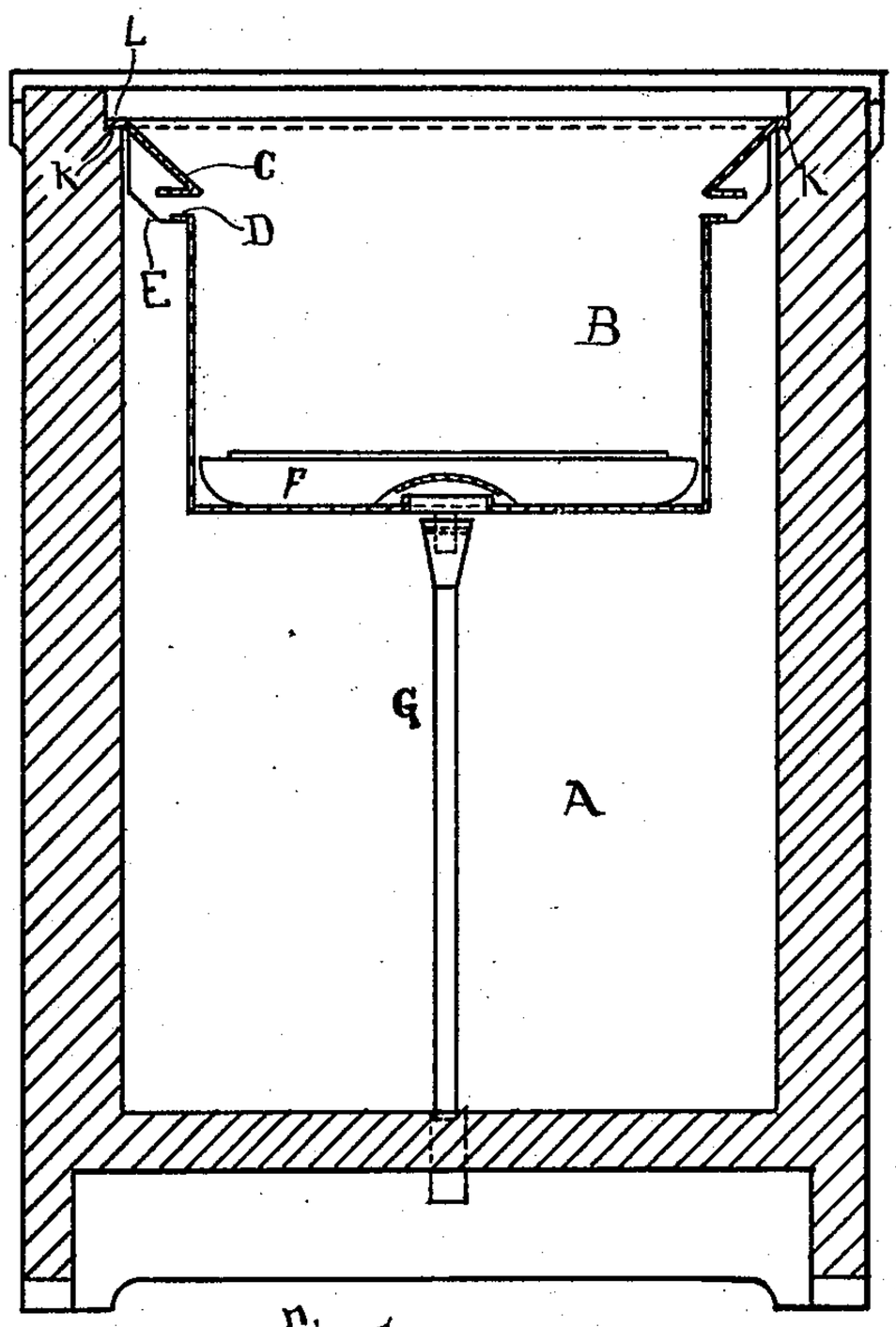

Fig. 1.

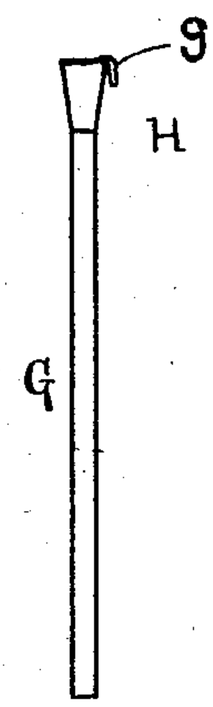

Fig. 3.

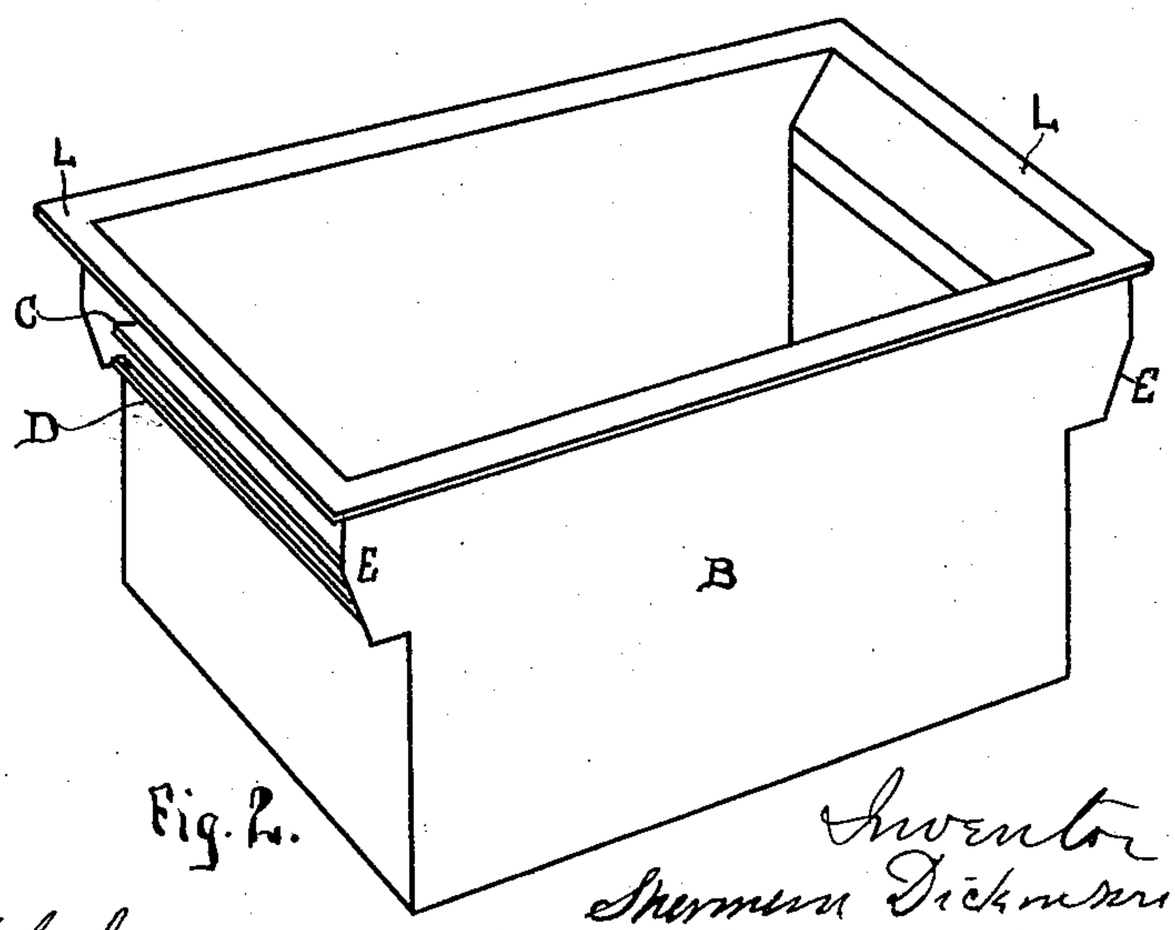

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

SHERMAN DICKINSON, OF GRAND HAVEN, MICHIGAN, ASSIGNOR TO THE CHALLENGE CORN PLANTER COMPANY, OF SAME PLACE.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 568,312, dated September 22, 1896.

Application filed May 22, 1896. Serial No. 592,621. (No model.)

To all whom it may concern:

Be it known that I, SHERMAN DICKINSON, a citizen of the United States, residing at the city of Grand Haven, in the county of Ottawa and State of Michigan, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates to certain new and useful improvements in refrigerators; and the invention consists in the novel features of construction and new combinations of parts hereinafter fully described, and then particularly pointed out and defined in the claims which conclude this specification.

The purposes of my invention are, first, to construct a refrigerator in which the ice-box, in combination with the case, forms the flues for the movement of the air, and which when removed will leave the case without projections or ledges or other means for retaining dirt or other material which is liable to accumulate on the inside of the refrigerator-case; second, to construct the ice-box so that the guard and the opening for the cold air are all contained in the ice-box, which ice-box is constructed of metal in the peculiar form shown in the drawings. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a vertical section through the center of a refrigerator constructed in accordance with my invention. Fig. 2 shows a perspective view of the ice-box removed; and Fig. 3 shows a detachable waste-pipe which is used in connection with the ice-box and refrigerator-case, as hereinafter described.

Similar letters refer to similar parts throughout the several views.

A represents the body of the case, constructed of any suitable material, and provided with a ledge K, extending entirely around the inner side of the case at or near its top, which ledge K forms the sole and entire support for the ice-box B.

The ice-box B is provided with a flange L, extending entirely around the upper portion of the ice-box and adapted to fit closely upon the ledge K. By this construction the ice-box is supported within the case solely by the flange L, resting upon the ledge, and when said ice-box is removed the inside of the case presents perpendicular walls on all sides entirely free from all projections and obstacles, excepting a pin or other means for attaching the waste-water pipe. On two sides of the ice-box I provide an opening D. The form of the opening is shown both in Figs. 1 and 2. Above the opening D is the incline projection C, which entirely covers the air-passages at the ends of the ice-box, and below the opening is a projection or flange extending from front to rear of the ice-box connected with the projections or flanges E E. These projections or flanges E E (there being two at either end of the ice-box) cover the ends of the openings D and form a support both for the inward projection C and for the flange below the opening D. The form of the flanges is shown in Figs 1 and 2.

It is the design of my invention to have the ice-box substantially fill the space within the case from front to rear and to leave at the ends sufficient space for the movement of the air from the provision-chamber up into the ice-chamber. It will be noted by the structure shown that the inward-projecting incline C is bent at a sharp angle inward, thereby giving great strength to the upper sides of the ice-box. By this construction I not only combine great strength, but provide for the flow of the air into the ice-box through ways made in the ice-box itself, and I also strengthen the ice-box by means of the projecting flanges below the air-inlet into the ice-box. I also extend the flanges E E so as to strengthen and support the end flange of the ice-box, so that the ice-box itself is supported equally on all portions upon the ledge upon which it rests.

At the bottom of the ice-box there is the ordinary opening for the downward passage of the cold air into the provision-chamber, and an opening, preferably at its rear, for the escape of water, caused by the melting of the ice. In the rear of the case I provide an ordinary pin or loop, projecting from the wall of the case, which supports the detachable waste-water pipe G. This water-pipe G is made funnel-shaped at the top, where it is

provided with a hook *g*, which readily engages with the loop on the case and which can be easily detached.

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

1. In a refrigerator, in combination with the outer case, said case being provided with a ledge or projection as K, a detachable ice-box provided with a flange extending entirely around its upper surface, an inwardly-inclined protector formed with the angle as shown at C, with flanges or ears E at either end supporting and strengthening the ends of the ice-box, an opening at the bottom for the downward passage of the air from the ice-box into the provision-chamber, and a waste-water pipe for carrying off the water caused by the melting of the ice, substantially as described.

2. In combination with the case of a refrigerator, having a ledge extending entirely around near its upper surface, an ice-box having a flange extending entirely around its upper surface and adapted to rest upon the said ledge, inclined projections as C, guard-flanges as E, a waste-water pipe detachably connected with the case and readily removable therefrom, substantially as described.

3. In combination with the case or shell of a refrigerator, provided with a ledge extending around near its upper side and free from projections within the shell or case, an ice-box provided with a flange adapted to engage with the said ledge and having air-passages at the ends leading into the ice-box, inclined projections covering said air-passages, and guard-flanges closing their ends, said ice-box adapted to be removed bodily from the shell or case of the refrigerator, leaving the entire inner surface of the said shell or body smooth and unobstructed on all sides, substantially as described.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

SHERMAN DICKINSON. [L. S.]

Witnesses:

GEO. STICKENY,

W. J. H. SAUNDERS.