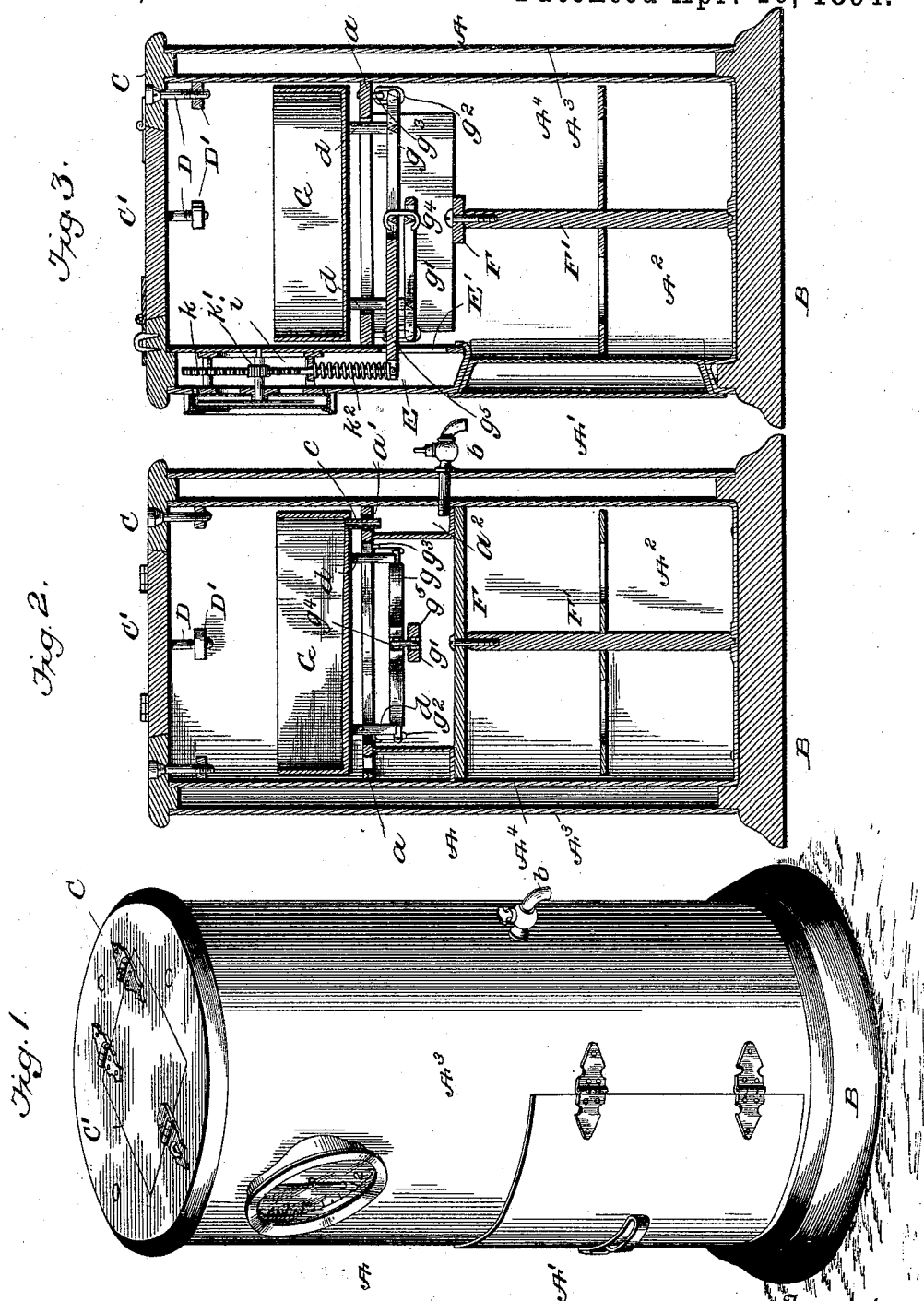


(No Model.)

J. R. DAVIS.
REFRIGERATOR.

No. 518,096.

Patented Apr. 10, 1894.



Witnesses

John Jamieson
Lillie M. Willard

Inventor
John R. Davis

By R. B. & A. H. Lacey
Attorneys

UNITED STATES PATENT OFFICE.

JOHN R. DAVIS, OF CHICAGO, ILLINOIS.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 518,096, dated April 10, 1894.

Application filed November 24, 1893. Serial No. 491,861. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. DAVIS, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Refrigerators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in refrigerators and has for its object to provide in compact form an automatic weighing mechanism in combination with the refrigerator case whereby the quantity of ice within the ice box or receptacle will at any and all times be accurately indicated.

It consists in a platform scale, an ice box supported on the platform scale and an automatic weighing device all arranged within the casing of the refrigerator and in other improvements all of which will be hereinafter fully described.

In the drawings,—Figure 1 is a perspective view of a small refrigerator constructed according to my invention. Figs. 2 and 3 are vertical longitudinal sections formed on lines at right angles to each other.

A is a refrigerator which may be of any desired form. I have shown a round casing but it will be readily seen that it may be made of any form. It is provided with a door A' through which the food or other articles are passed into the chamber A².

The refrigerator is composed of the outer and inner casings A³ A³ with the base B and the top C. The top is provided with a suitable opening through which the ice is passed, and is provided with a door or lid C'. The top is secured in place by screws or bolts D which engage with lugs D' on the inner side of the inner casing A⁴. The space between the casings may be packed in the ordinary way or may be left as a dead air space. At one side, preferably the front side, a dead air space E is provided between the casings and near the top of the refrigerator. A narrow slot E' is formed through the inner casing near the bottom of the space E. A cross bar F is placed within the refrigerator and in the present structure a revolving shelf F' as

shown. A flat narrow ledge or support *a* (annular in the present instance) is secured to the inner casing just above the slot E, and is perforated with a drip opening *a'* which communicates with the drip chamber *a*² arranged just below it. A spigot *b* is provided to draw the drip water from the chamber *a*². I have shown the chamber *a*² and spigot *b* off at one side, but these can be constructed at any convenient part of the refrigerator for instance at the front just over the door A'. I have shown two drip chambers in the drawings, but only one of them is utilized. Immediately above the ring *a* I place the ice box or pan G and provide it with drip spout which passes through the opening *a'* into the drip chamber *a*². The ice box is less in dimension than the inner dimension of the refrigerator thereby providing a space for the necessary circulation of the air. In case of derangement of any of the working parts of the weighing mechanism the ice box will be prevented from falling by the ring *a*. A number of supports *d* are attached to the under side of the ice box and support the latter in place on the weighing mechanism hereinafter described.

g g' are two bifurcated weighing levers the ends of the arms of which are held in rings or loops *g*² working loosely in eyes *g*³ secured in the ring *a*. The levers *g g'* are coupled together at their apexes by a loop *g*⁴. The lever *g* has extended from it the beam *g*⁵ which passes through the slot E' into the dead air chamber E.

The supports *d* of the ice box rest on the arms of the levers *g g'*.

Within the dead air chamber E I place the weighing mechanism *i* consisting of the rack bar *k* the lower end of which is connected to the end of the beam *g*⁵, the pinion *k'* and the spring *k*² all arranged as shown. The arbor of the pinion *k'* is projected through the outer casing and is provided with an index adapted to move over a graduated dial as shown.

I am aware that it is not new to have the ice box of a refrigerator supported on a weighing mechanism and having the weighing beam thereof projected through to the outer side and provided with a movable weight.

In my invention I have constructed all the parts in compact form and so that the weigh-

ing is done automatically. Further it is so constructed that the waste by the melting of the ice will be indicated.

The ice pan or box is removable. In the refrigerator shown, by removing the top the pan may be lifted out. This is a convenience sometimes needed for purposes of cleaning or for repairs. In that class of refrigerators in which the top is hinged to the casing, the pan can be lifted out at any time.

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

The combination in a refrigerator of a pro-

jecting ledge or support extended around the inner face of the casing, a drip chamber arranged within the refrigerator and below the projecting ledge, the ice box arranged above said ledge and provided with a drip spout extended downward through a suitable opening into the drip chamber, and a discharge spigot, substantially as set forth.

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

JOHN R. DAVIS.

Witnesses:

BENJAMIN B. DAVIS,

WILLIAM IRVIN.