

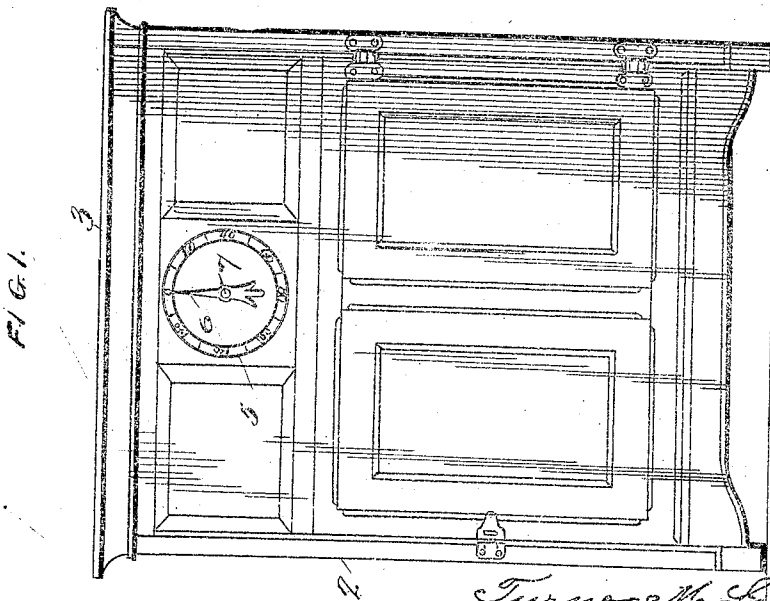
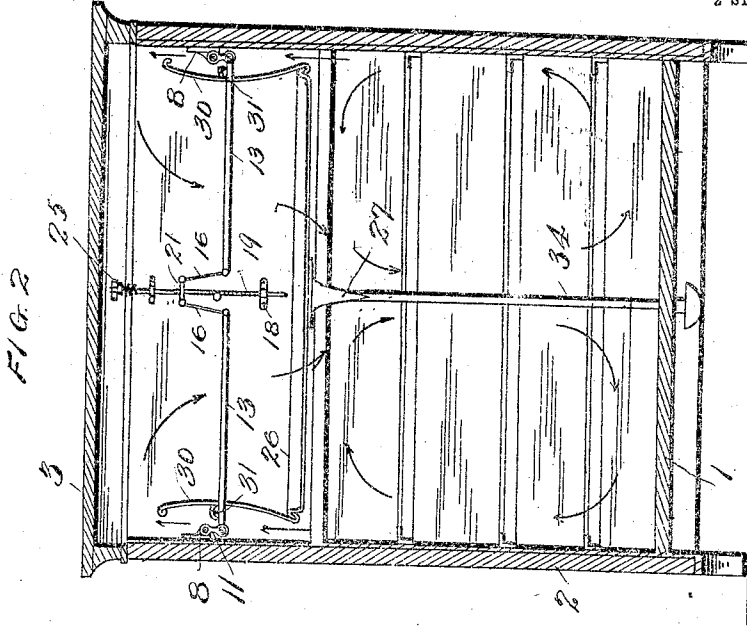
T. M. LAWRENCE & F. SNADON.
REFRIGERATOR.

APPLICATION FILED OCT. 25, 1910.

Patented June 27, 1911.

2 SHEETS—SHEET 1.

996,417.



WITNESSES

C. K. Davis

M. E. Moore

Turner M. Lawrence
Frank Snadon
INVENTORS;

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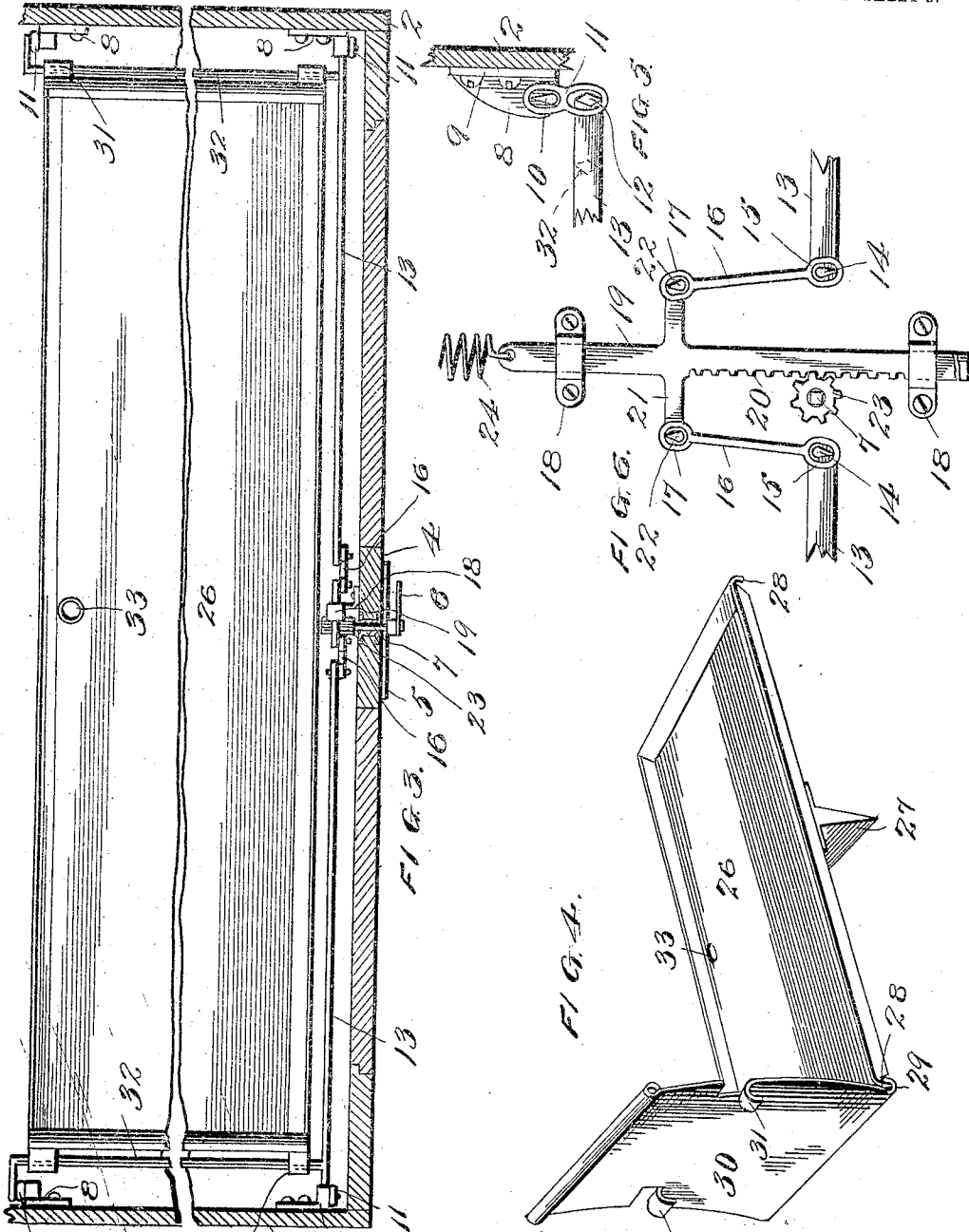
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UNITED STATES PATENT OFFICE.

TURNER M. LAWRENCE AND FRANK SNADON, OF NASHVILLE, TENNESSEE.

REFRIGERATOR.

996,417.

Specification of Letters Patent. Patented June 27, 1911.

Application filed October 25, 1910. Serial No. 589,019.

To all whom it may concern:

Be it known that we, TURNER M. LAWRENCE and FRANK SNADON, citizens of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

Our invention relates to improvements in refrigerators, and has particular reference to that type of refrigerators in which means are provided for weighing the ice as it is placed therein.

The leading object of our invention is the provision of a refrigerator having an improved ice supporting pan so constructed and secured in position as to insure a thorough circulation of air in the refrigerator and cause said air in its passage to contact with the entire surface of the ice to attain the maximum chilling efficiency thereof.

A further object of the invention is the provision in connection with the ice pan of improved means for supporting the same in position, which means are connected with an indicating scale on the face of the refrigerator to indicate the weight of the ice as it is placed in the refrigerator and thus to prevent short weight and cheating on the part of the ice man.

Another object of the invention is the provision of improved means which can be readily secured to the interior of any ordinary refrigerator for supporting the ice pan thereof, which means will support said pan in the central portion of the refrigerator to provide a circulation space entirely therearound.

To attain the desired objects, our invention comprises a refrigerator having levers pivotally secured thereto and provided with bearings, a scale member connected to the free ends of the levers, and an ice pan swung from the bearings of the levers, the invention further residing in the novel features of construction and combination and arrangement of parts for service substantially as described in the following specification and as illustrated in the accompanying drawings forming a part thereof.

Figure 1 represents a front elevation of a refrigerator having our improvements applied thereto. Fig. 2 represents a vertical sectional view of the refrigerator showing the ice pan and supports in the interior of the refrigerator. Fig. 3 represents a top

plan view of the supports or hangers for the ice pan, the pan being removed. Fig. 4 represents a perspective view of the ice pan with one of the ends therefor in position to be attached thereto. Fig. 5 represents an enlarged side elevation of the supporting bracket and bearing link, and, Fig. 6 represents an enlarged detailed view of the indicator controlling mechanism.

In the drawings, in which similar characters of reference are employed to denote corresponding parts in the several views, the numeral 1 designates the base of the refrigerator, 2 the sides, 3 the top and 4 the front thereof, said parts being of ordinary construction and forming no part of my invention, while secured on the face of the refrigerator is a dial 5 having an indicator 6 mounted on the shaft 7 which extends into the interior of the refrigerator.

Secured to the sides 2 at their upper portion near each corner of the refrigerator are the brackets 8 having flanged bases 9 secured to said sides, and each of said brackets is provided with the knife-edge bearing 10 on which is mounted the double loop link 11, as shown in detail in Fig. 5. Engaged in the lower loop of said link is the double knife-bearing 12 formed on the lever 13, said lever having a similar bearing 14 formed on the other end but on the opposite side to the bearing 12, while engaging the bearing 14 to support the free end of the lever 13 is the loop 15 of the rod or connection 16, said connection being provided at its upper end with a second loop 17.

Secured to the inner face of the front of the refrigerator by the brackets 18 which slidably retain the same is the rod 19 bearing the rack 20, a cross-bar 21 being secured to the rod and having at each end the knife-bearing 22 for engaging the loop 17 to support the lever 13 on each side, as shown in Fig. 2. The rack portion 20 of the rod 19 is in mesh with the pinion 23 mounted on the shaft 7, the shifting of the rod 19 thus serving to move the indicator 6, while a spring 24 is secured to the upper end of the rod and to the end of the set screw 25 projecting through the top, the adjustment of said screw serving to regulate the tension of the spring.

From the foregoing description it will be seen that the levers 13 being supported throughout on the knife bearings will swing with a minimum frictional resistance and

that any weight bearing on said levers will swing the same on the brackets as fixed pivots and will consequently depress their inner end, drawing down upon the rod 19 against the force of the spring 24 and thus moving the indicator around its dial on the front of the refrigerator.

While it will be understood that the ice container may be supported in any desired manner from the levers 13 and the weight thereof indicated on the dial, we prefer in this connection to employ our improved ice pan, said pan comprising a tray 26 having on the under side the baffle or guiding rib 27 and having downwardly bent flanged ends 28, said ends 28 making interlocking engagement with the upturned ends 29 of the end members 30. The members 30 have tongues 31 cut from their edges and bent downward, said tongues engaging over knife-bearings or lugs 32 which project inward from the levers 13, the said ends and thus the pan being supported by the levers and depressing the same when the pan is filled. The pan is preferably provided with a drain spout 33 for leading away the water from the melted ice, said spout discharging into the drain pipe 34.

From the foregoing description taken especially in connection with Fig. 2 the operation of our improved refrigerator will be readily understood and it will be seen that the pan is supported in the refrigerator away from the sides and ends thereof, the warmer air at the bottom of the refrigerator passing upward along the sides and a portion passing between the ends of the pan and the side wall, while the rest contacts with the chilled bottom of the pan and passes therealong until it strikes the baffle plate which throws it downward toward the center of the refrigerator, thus providing two whirls or circulating currents, the air from the ice passing down at the sides of the pan and commingling with the air there circulating.

The advantages of this construction will be evident to all and it will be seen that we have provided a simple but highly efficient combined refrigerator and ice weigher which can be installed by any one, it being necessary merely to secure in position the four corner brackets and then hang the levers and other parts therefrom, thus providing a refrigerator in which the air will circulate more rapidly and be maintained at a lower temperature than with the ordinary

type of refrigerator in common use, while the weighing attachment prevents cheating on the part of the ice man and enables a person at all times to know exactly how much ice is in the refrigerator without opening and peering into the same.

We claim:—

1. The combination with a refrigerator, of a pair of levers swingingly mounted in the refrigerator, an ice pan mounted upon the levers, and a weighing and indicating mechanism operated by said levers, and consisting of a pair of links connected to the inner ends of the levers, a vertically movable rod connected to said links, an indicator operated by the said rod and a spring connected to the rod.

2. The combination with a refrigerator, a pair of levers each having an arm pivotally mounted in the refrigerator, an ice pan having tongues to engage the arms of said levers, a pair of links connected to said levers, a spring controlled rod connected to said links and an indicator operated by said rod.

3. In a refrigerator, brackets secured thereto, levers having one end pivotally secured to the brackets, means for supporting the free ends of the levers, said levers having laterally projecting lugs, end members having tongues engaging said lugs, and an ice pan removably secured to said ends and supported thereby.

4. In a refrigerator, the combination with the sides, of brackets secured thereto provided with knife-bearings, double-link loops engaged on said bearings, levers having integral bearings on each end, the bearings on one end being engaged in the lower loop of the links, a rod having a rack formed thereon secured to the front of the refrigerator, connections between said rod and the bearings on the free end of the levers, an indicator operated by the rack, and an ice pan suspended from the levers and spaced from the sides of the refrigerator.

In testimony whereof we affix our signatures in presence of two witnesses.

TURNER M. LAWRENCE.
FRANK SNADON.

Witnesses for Lawrence:

CHAS. J. DUNCAN,
H. E. SEXTON.

Witnesses for Snadon:

H. H. HARRISON,
GEORGE SNADON.