April 5, 1932. F. E. JUSTUS 1,852,973

ICE BOX SCALE

Filed Aug. 13, 1929 2 Sheets-Sheet 1

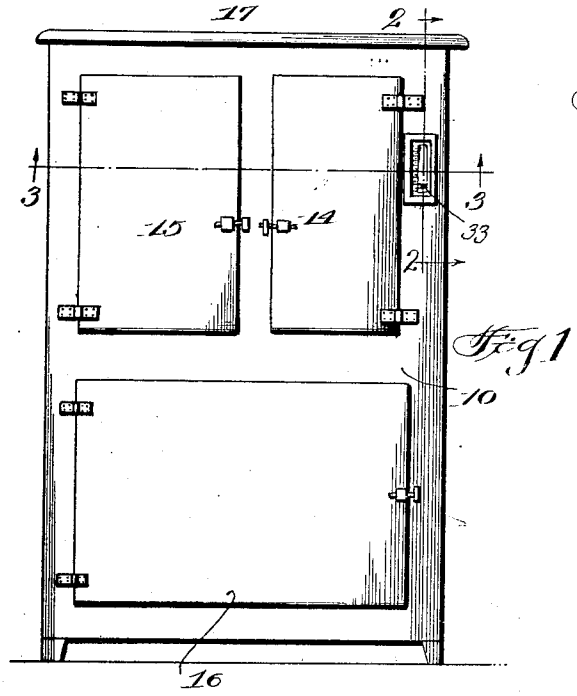


Fig. 1

Fig. 2.

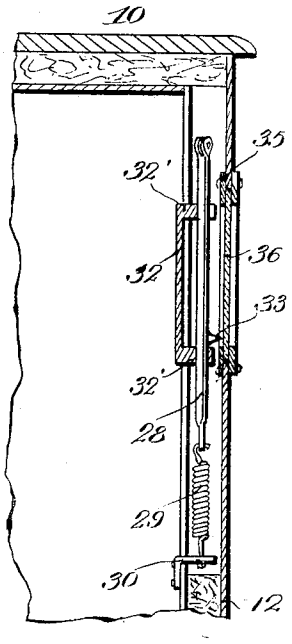
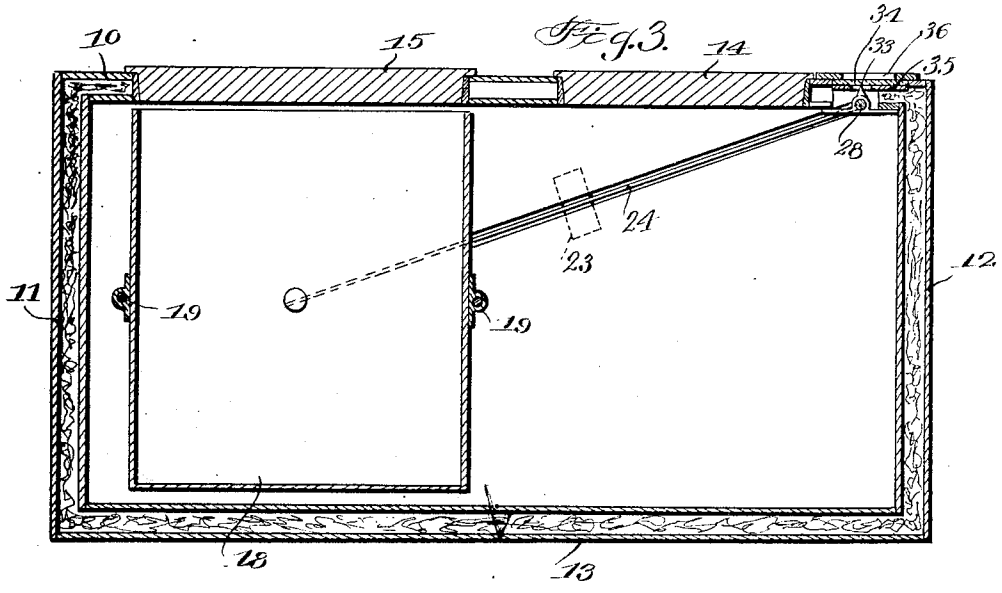


Fig. 3.



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ICE BOX SCALE

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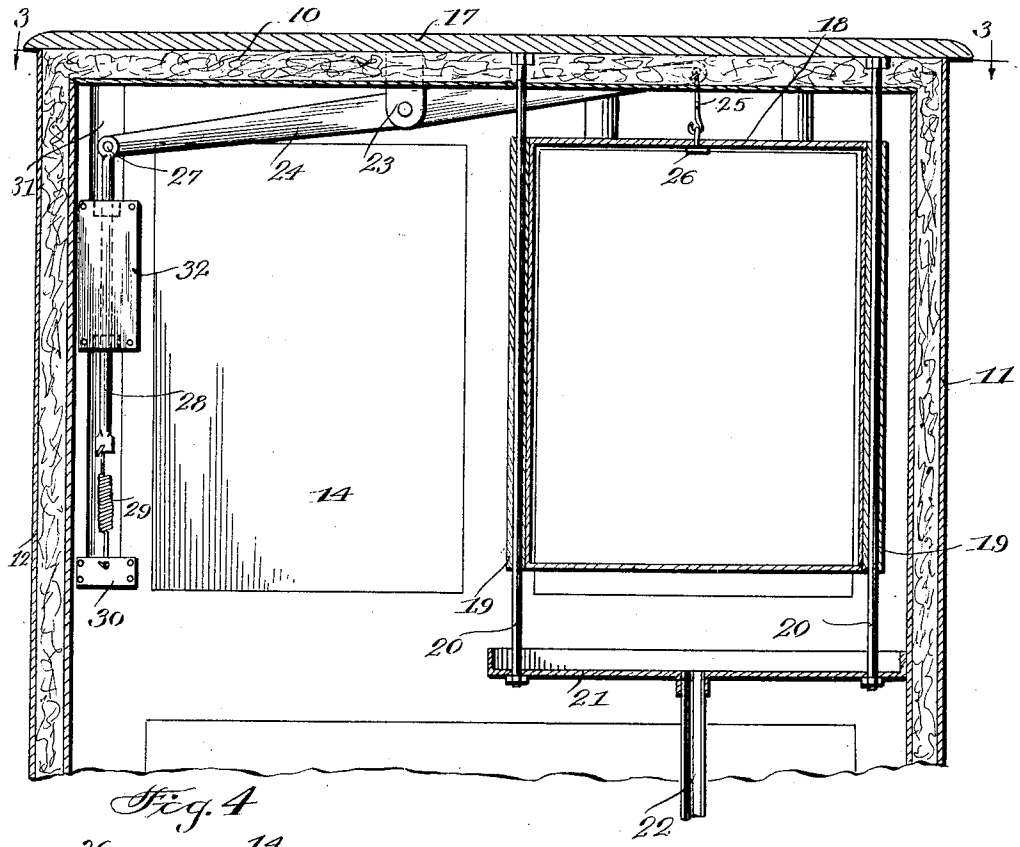

Fig. 4

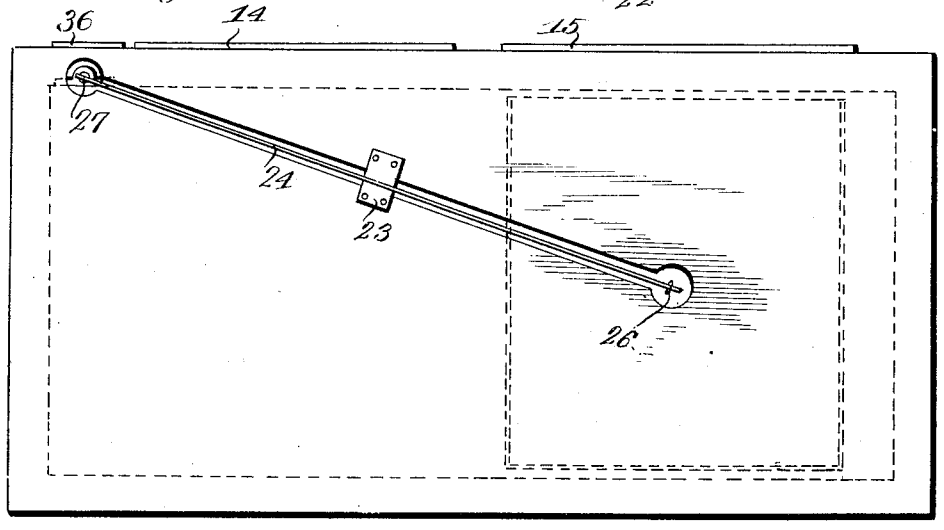

Fig. 5.

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UNITED STATES PATENT OFFICE

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ICE BOX SCALE

Application filed August 13, 1929. Serial No. 385,489.

This invention relates to improvements in scales for ice boxes or refrigerators.

Among the general objects of the invention is to provide a scale structure which may be incorporated with any conventional structure of ice box or refrigerator, which will accurately weigh ice placed in the ice box, and which is not subject to getting out of repair.

It is also within the scope of the objects of the invention that the scale structure of this invention may be incorporated with any conventional structure of ice box without detracting from the appearance thereof, and that the number of pounds of ice within the ice box may be ascertained without opening any of its doors.

Other objects relating to the combination of elements forming my scale structure and structural advantages thereof will hereinafter appear in the detailed description to follow.

The invention is illustrated by way of example in the accompanying drawings, in which:

Figure 1 is a front view of an ice box or refrigerator with which my invention has been incorporated,

Figure 2 is a fragmentary vertical sectional view taken substantially on the line 2—2 of Figure 1,

Figure 3 is a horizontal sectional view taken on the line 3—3 of Figure 1,

Figure 4 is a partial central vertical section through the ice box or refrigerator, and

Figure 5 is a top plan view of the ice box or refrigerator with its cover or top board removed.

Referring to the drawings more particularly, 10 indicates generally the top wall of an ice box, 11 and 12 the side walls thereof, 13 the back wall, and 14, 15 and 16 doors therefor. The walls may be constructed in the usual manner, as shown, and the top wall covered with a suitable top board 17.

As is well understood, an ice box is usually provided with compartments, to which the doors 14, 15 and 16 permit free access. In the compartment provided for ice, I arrange a box 18, preferably of metal, and with its front end open to permit ice to be easily placed therein. Upon each side wall of the box 18 there is secured a tubular guide 19 through which rods 20 depending from the top wall 10 of the ice box extend. It is, of course, to be understood that a greater number of guide rods 20 could be utilized if desired. The guide rods 20 support at their lower end a pan 21 which is provided with an outlet pipe 22. Also it is apparent the pan 21 limits the downward movement of the box 18.

Centrally of the top wall 10 there is secured a U-shaped clip 23 which pivotally supports a scale beam 24. One end of the beam is connected to the box 18 by a hook 25 and eye 26, while its other end is pivotally attached as at 27 to the upper end of a rod 28. The lower end of the rod is connected to a suitable coil spring 29, said coil spring having its lower end anchored to a metal bracket 30. The rod 28 and spring 29 are by preference arranged in a vertical groove 31 formed in the associated side wall of the ice box. This side wall also carries a plate 32 provided with an apertured ear 32′ at each end through which the rod 28 is slidable. The portion of the rod 28 between the ears 32′ is provided with a pointer or finger 33 which moves in a longitudinal slot 34 provided in a plate 35. The plate 35 has markings arranged adjacent the edges of slot 34 to indicate in pounds and ounces the amount of ice within the box 18. A glass panel 36 may be arranged forward of the plate 35 and within a suitable recess provided within the wall of the ice box.

It is believed from the foregoing description of my invention when viewed with the accompanying drawings, that the structure and operation of my improved form of scales for ice boxes or refrigerators can be readily understood. It is, of course, understood that the graduated marks on the plate 35 should be made in accordance with the predetermined strength of spring 29. Also it might be noted that the rods 20 should loosely fit within the guide tubes 19 in order that the box 18 may have free upward and downward movement.

While I have shown and described the preferred form of my invention, I wish it understood that I am aware of the fact that the general combination and arrangement of the parts utilized might be changed by those skilled in the art without departing from the spirit of my invention as indicated by the appended claims.

I claim:—

1. In combination with an ice box or refrigerator, a beam pivotally supported by the top wall of the ice box at a point intermediate its ends, an ice container connected to one end of the beam, guide tubes carried by said container, guide rods depending from the top wall of the ice box and freely slidable through said tubes whereby the container may have free upward and downward movement, an anchored coil spring, means connecting said spring to the other end of the beam, and means cooperative with said spring and the adjacent end of said beam whereby the expansion of the spring may be indicated as a function of the weight of material deposited in said container.

2. In combination with an ice box or refrigerator, a beam pivotally supported by the top wall of the ice box at a point intermediate its ends, an ice container connected to one end of the beam, guide members carried by said container and having openings through the same, guide rods depending from the top wall of the ice box and freely slidable through the openings in said members whereby the container may have free upward and downward movement, a drain pan carried by the lower ends of the guide rods, an anchored coil spring, means connecting one end of said spring to the other end of the beam, and means cooperative with said spring and the adjacent end of said beam whereby the expansion of the spring may be indicated as a function of the weight of material deposited in said container.

3. In combination with an ice box or refrigerator, a beam pivotally supported by the top wall of the ice box at a point intermediate its ends, an ice container connected to one end of the beam, guide tubes carried by said container, guide rods depending from the top wall of the ice box and freely slidable through said guide tubes whereby the container may have free upward and downward movement, a rod dependingly pivoted from the other end of said beam, an anchored coil spring attached to the lower end of the last named rod, and means connected to said last named rod whereby the expansion of the spring will be indicated as a function of the weight of material deposited in said container.

4. In combination with an ice box or refrigerator, a beam pivotally supported by the top wall of the ice box at a point intermediate its ends, an ice container connected to one end of the beam, guide tubes carried by said container, guide rods depending from the top wall of the ice box and freely slidable through said guide tubes whereby the container may have free upward and downward movement, a rod dependingly pivoted from the other end of said beam, guide means for said last named rod, an anchored coil spring attached to the lower end of the last named rod, and means connected to said last named rod whereby the expansion of the spring will be indicated as a function of the weight of material deposited in said container.

5. In combination with an ice box or refrigerator, a beam pivotally supported by the top wall of the ice box at a point intermediate its ends, an ice container connected to one end of the beam, guide tubes carried by said container, guide rods depending from the top wall of the ice box and freely slidable through said guide tubes whereby the container may have free upward and downward movement, a rod dependingly pivoted from the other end of said beam, a guide for the last named rod, a coil spring anchored at one end beneath said guide, means connecting the other end of said spring to the lower end of the last named rod, a graduated indicator member exposed through a wall of the refrigerator, and a pointer carried by said last named rod for cooperation with said member whereby the expansion of the spring will be indicated as a function of the weight of material deposited in said receptacle.

FRED E. JUSTUS.