

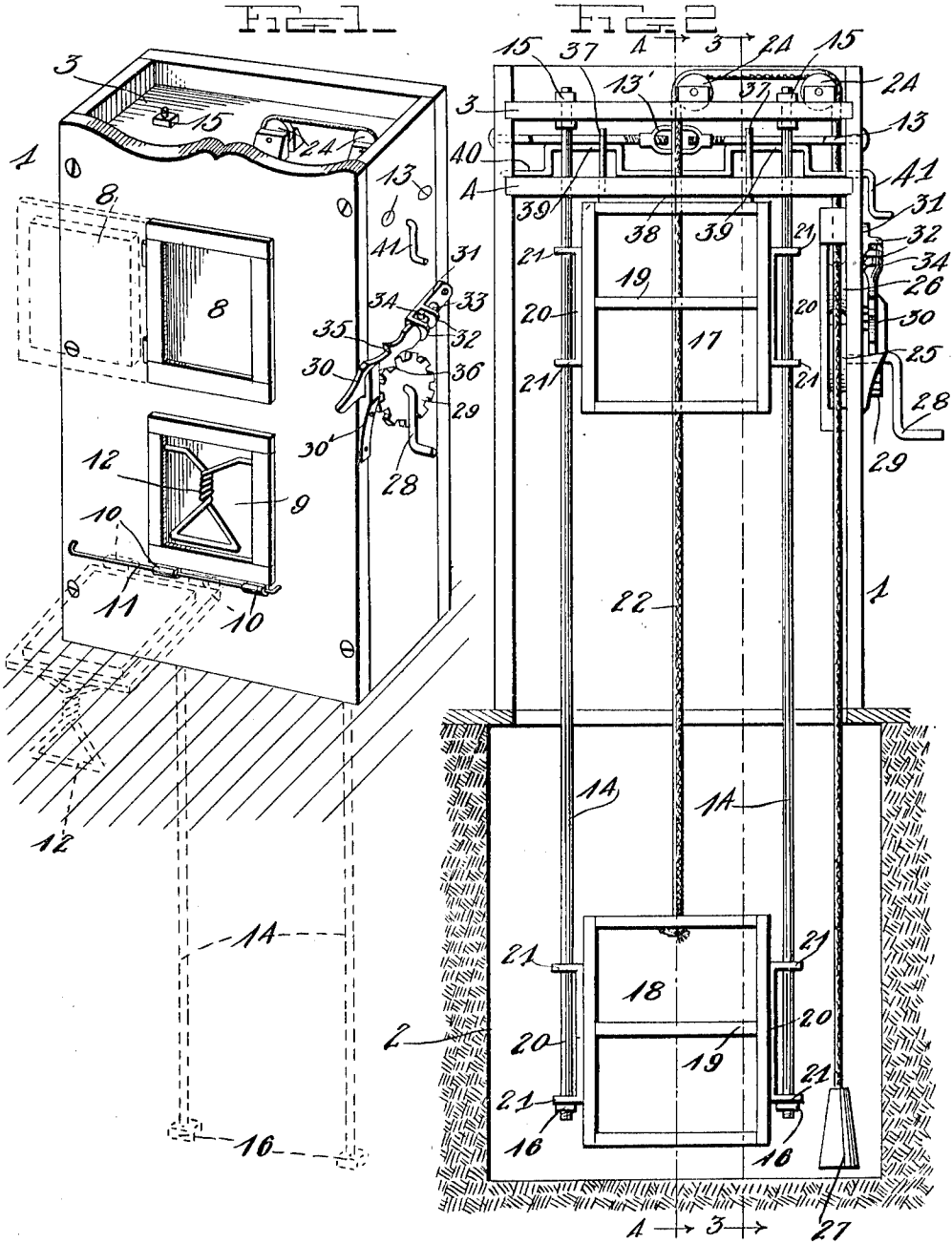
H. N. HOLCOMB.  
REFRIGERATOR.

APPLICATION FILED JAN. 19, 1911.

1,001,524.

Patented Aug. 22, 1911.

2 SHEETS—SHEET 1.



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Witnesses  
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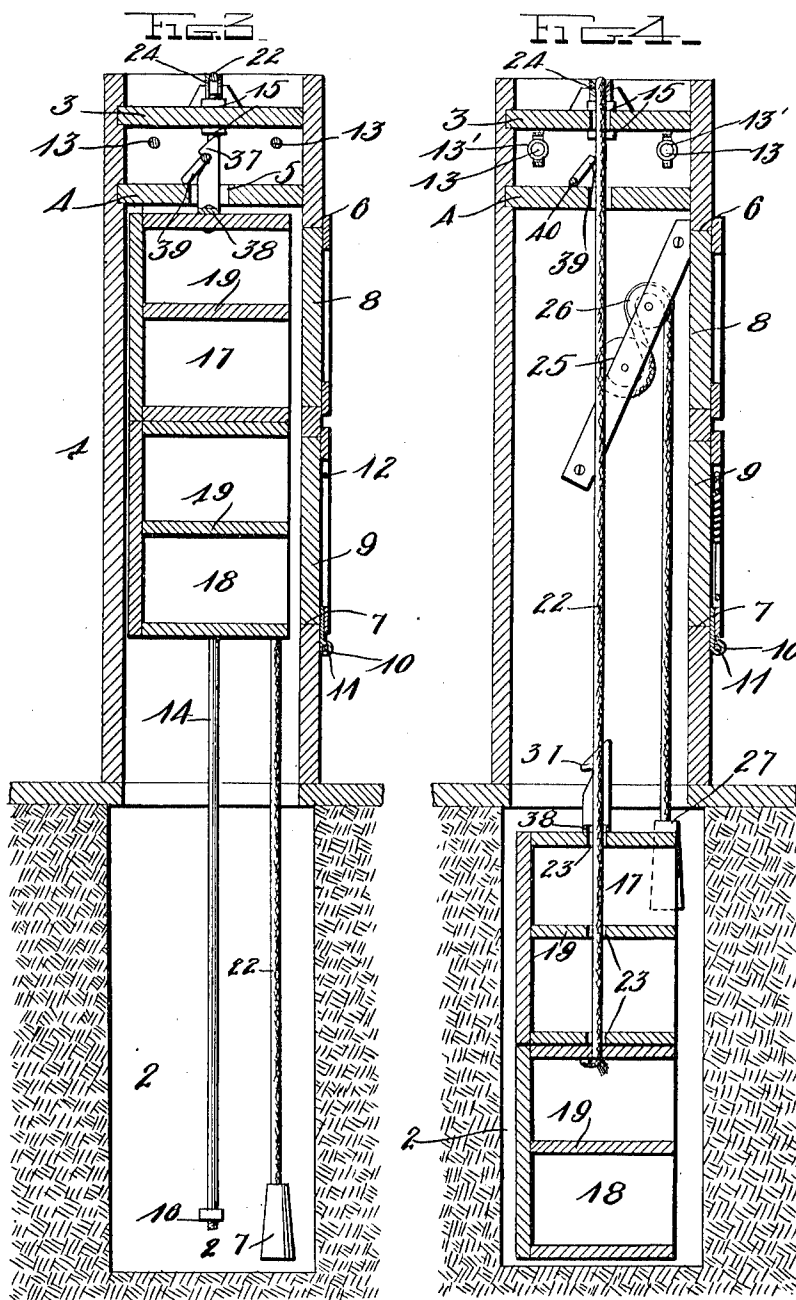
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# UNITED STATES PATENT OFFICE.

HILARY N. HOLCOMB, OF ELKIN, NORTH CAROLINA.

REFRIGERATOR.

1,001,524.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed January 19, 1911. Serial No. 603,554.

*To all whom it may concern:*

Be it known that I, HILARY N. HOLCOMB, a citizen of the United States, residing at Elkin, in the county of Surry and State of North Carolina, have invented certain new and useful Improvements in Refrigerators; and I do 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.

One object of the invention is to provide a refrigerator in which food may be preserved without the use of ice.

Another object is to provide a refrigerator of this character having means whereby the same may be readily lowered into and raised from a cellar well or hole in the ground provided to receive the same in which the food will be kept cool when the refrigerator is lowered therein.

In the accompanying drawings: Figure 1 is a perspective view of my improved refrigerator showing the doors closed in full lines and open in dotted lines; Fig. 2 is a front view of the same with the front of the casing removed; Fig. 3 is a vertical cross section on the line 3—3 of Fig. 2 showing the upper section of the food receptacle secured in elevated position; Fig. 4 is a similar view on the line 4—4 of Fig. 2 showing both sections of the refrigerator in a lowered position.

In the embodiment of the invention I provide a cabinet or closet 1 which may be of any suitable size and shape and which is open at its lower end and adapted to be secured over an opening in the floor of a room beneath which is a cellar or hole 2, dug in the ground. The hole 2 is of suitable depth for keeping cool the food or other articles let down therein by the mechanism hereinafter described. In the upper portion of the cabinet 1 and spaced a suitable distance from the top 3 thereof is a transverse partition 4 in which are formed slots 5. The front of the cabinet is provided with an upper opening 6 and a lower opening 7. The upper opening 6 is closed by a hinged horizontally swinging door 8 while the lower opening is closed by a vertically opening downwardly swinging door 9. The door 9 is provided on its lower edge with

hinge members 10 which are pivotally and slidably engaged with a hinge bar 11 secured to the front side of the cabinet below the opening 7 and extending some distance beyond one side of the same as shown. By thus hinging the door 9 the latter may be swung downwardly to a horizontal position and slipped back along the rod 11 to one side of the opening 7 and when in this position is adapted to be supported by a leg member 12 which is hingedly connected to the outer side of the door and is adapted to be swung downwardly to form a support for the outer end of the latter when in an open position, said door thus forming a table or support upon which goods may be placed prior to or after being removed from the refrigerator hereinafter described.

The side pieces of the cabinet are secured together near their upper ends and between the top piece 3 and partition 4 by transversely disposed tie bolts 13 having turn buckles 13', while the front and rear sides of the cabinet are secured to the front and rear edges of the side pieces by screws or other suitable fastening devices whereby the cabinet may be readily knocked down or taken apart when desired. In the cabinet adjacent to its opposite sides and midway between the front and back thereof are arranged vertically disposed guide rods 14 the upper ends of which project through the partition 4 and top piece 3 and are rigidly secured in the latter by clamping nuts 15. The lower ends of the rods project down into the cellar or hole in the ground and have on their lower ends stop nuts 16. Arranged between and slidably connected to the guide rods 14 are upper and lower cars or food receptacles 17 and 18, said receptacles being preferably in the form of rectangular boxes open at their front sides and having arranged therein shelves 19. The cars or receptacles 17 and 18 have on their opposite sides guide plates 20 provided on their upper and lower ends with right angularly projecting apertured guide lugs 21 through which the guide rods 14 project and whereby said cars or receptacles are slidably supported on the rods.

Secured at one end to the top of the lower receptacle or car 18 is a raising and lowering cable 22, said cable passing up through apertures 23 formed in the top, bottom and shelves of the upper receptacle 17 and

through apertures in the partition 4 and top piece 3 of the cabinet. The cable after passing up through the top piece 3 is passed over guide pulleys 24 journaled in suitable bearings on the top piece 3 and thence downwardly through said top piece and partition 4 adjacent to the inner surface of one side of the cabinet. The cable after passing down through the partition 4 is passed around a pair of friction pulleys 25 and 26 and then passes downwardly through the lower open end of the cabinet and has secured thereto a counter balancing weight 27 whereby the weight of the cars or receptacles is balanced.

The shaft of the pulley 25 projects through the adjacent side of the cabinet and is provided with a crank handle 28 whereby the pulley 25 may be operated to raise or lower the receptacle by the frictional engagement of the operating cable with the pulleys 25 and 26.

Fixedly mounted on the shaft of the pulley 25 is a ratchet gear 29 with which is adapted to be engaged a reversible locking pawl 30 whereby the pulley 25 and the shaft thereof may be locked at any desired position when raising or when lowering the receptacle thereby supporting the latter on the rods 14 at any desired elevation. The pawl 30 comprises a pivoted plate 31 having on its outer end a pair of apertured lugs 32 in which is revolubly mounted the reduced cylindrical inner end 33 of the pawl whereby the outer end thereof may be turned in one direction or the other. The turning movement of the outer end of the pawl in the lugs 32 is limited by a stop stud 34 arranged in the end of the pawl between the lugs 32 as shown. In the upper and lower edges of the outer portion of the pawl are formed oppositely projecting ratchet teeth 35 and 36 one or the other of which is adapted to be engaged with the ratchet wheel 29 so that the latter may be locked against revolution in either direction. A keeper member 30' is secured to the wall of the cabinet in position to receive and guide the free end of the pawl 30 during its vertical movement.

It will be noted that the upper receptacle 17 is not directly connected to the raising and lowering cable 22 but when in released position rests on the top of the lower car or receptacle 18 and is raised and lowered by the movement thereof. The upper receptacle 17 is primarily intended for use as a kitchen safe and to this end is provided with means for detachably supporting the same in the upper portion of the cabinet. The supporting means for the upper car or receptacle consists of a pair of upwardly projecting supporting hooks 37 which are preferably formed integral with and bent upwardly at right angles from the opposite

ends of an attaching plate 38 secured to the upper side of the receptacle 17. When the receptacle 17 is in an elevated position the hooks 37 will project through the slots 5 in the partition 4 and are adapted to engage crank loops 39 formed in a transversely disposed supporting shaft 40 which is revolubly mounted in the opposite sides of the cabinet and projects beyond one side thereof. The projecting end of the shaft 40 has formed thereon a handle 41 whereby the shaft may be rocked to swing the crank loops 39 to operative and inoperative positions for receiving or disengaging the hooks 37 on the receptacle 17. When the shaft 40 is turned to swing the crank loops to a vertical position and the receptacle 17 brought up to its highest elevation the pivoted hooks on the upper ends thereof will spring into engagement with said loops thereby holding the receptacle in an elevated position. When it is desired to lower the upper receptacle with the lower receptacle the shaft is turned downwardly to disengage the loops from the hooks thereby permitting the receptacle 17 to lower on and with the lower receptacle 18 and to be raised thereby when the latter is drawn up by the raising mechanism hereinbefore described.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. In a refrigerator of the character described, a cabinet adapted to be arranged over an opening in the ground, doors arranged in the front of said cabinet, a car operating cable arranged in said cabinet, upper and lower cars or receptacles the lower car being secured to and operated by said cable, said upper car being slidable on said cable, a raising and lowering mechanism engaged with said cable, and means to support said upper car in the upper end of the cabinet whereby the lower car may be raised and lowered independently of the upper car.

2. A refrigerator of the character described comprising a cabinet adapted to be arranged over an opening in the ground, upper and lower doors arranged in the front of said cabinet, guide rods secured to the top of the cabinet and projecting downwardly and into the opening below the same, upper and lower cars or receptacles slidably mounted on said rods, an operating cable

arranged in the cabinet, said cable having one end passing through the upper car or receptacle and secured to the lower car whereby said cars may be raised and lowered together or said lower car operated independently of the upper car, a counterbalancing weight secured to the opposite end of said cable, an operating mechanism engaged therewith and means secured to said upper car and arranged in the upper end of the cabinet whereby said upper car may be supported or held in said upper end of the cabinet.

3. A refrigerator of the character described comprising a cabinet adapted to be arranged over an opening in the ground, upper and lower doors arranged in the front of said cabinet, guide rods secured to the top of the cabinet and projecting downwardly and into the opening below the same, upper and lower cars or receptacles slidably mounted on said rods, an operating cable arranged in the cabinet, said cable having one end passing through the upper car or receptacle and secured to the lower car whereby said cars may be raised and lowered together or said lower car operated independently of the upper car, a counterbalancing weight secured to the opposite end of said cable, an operating mechanism engaged therewith, a car supporting shaft revolubly mounted in the upper portion of the cabinet, there being crank loops formed in said shaft, an operating handle on the outer end of the shaft whereby the latter is rocked to bring said crank loops into operative and inoperative positions, hooks arranged on the upper end of the upper car and adapted to be brought into engagement with said crank loops when the latter are in an operative position whereby the upper car is supported in the upper

end of the cabinet thereby permitting the lower car to be operated independently of the upper car.

4. In a refrigerator of the character described, a cabinet open at its lower end and adapted to be arranged over an opening in the ground, guide rods secured in the upper portion of the cabinet and adapted to project downwardly through and into the opening below the same, upper and lower cars or receptacles slidably mounted on said rods, a car operating cable having one end passed through said upper car and secured to the upper end of the lower car, said cable passing upwardly through the upper end of the cabinet, guide pulleys arranged on said upper end of the cabinet to receive said cable and to direct the same downward again through the top of the cabinet, a counterbalancing weight arranged on the opposite end of the cable, friction pulleys revolubly mounted on one side of the cabinet and adapted to receive said cable, a crank handle formed on the shaft of one of said pulleys whereby the latter is operated to draw said cable upwardly and downwardly thereby raising and lowering the cars or receptacles connected therewith, a ratchet gear fixedly mounted on the shaft of said pulley and a reversible pawl pivotally mounted on the side of the cabinet and adapted to be engaged with said ratchet wheel to lock the same against revolution in either direction.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HILARY N. HOLCOMB.

Witnesses:

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