(No Model.) 2 Sheets—Sheet 1.

N. MOTELET.

REFRIGERATOR.

No. 558,410. Patented Apr. 14, 1896.

Fig. 1.

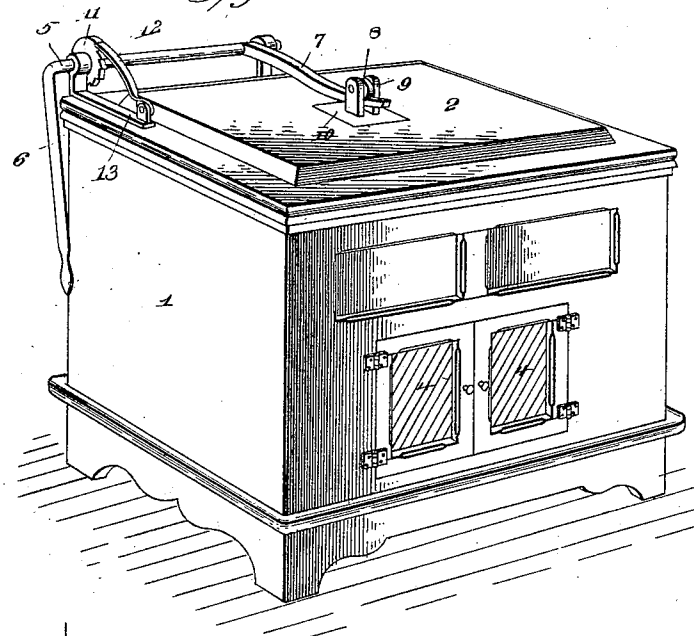
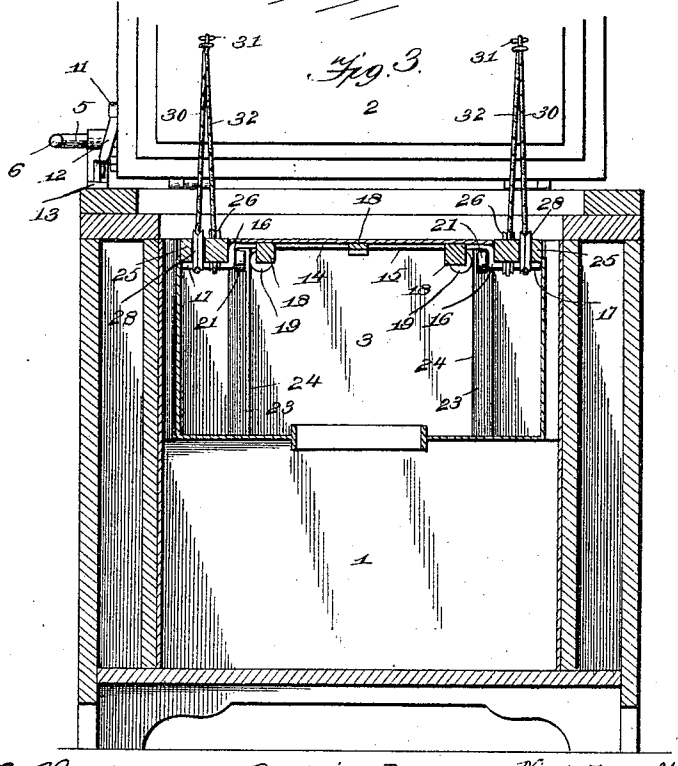


Fig. 3.



Inventor

Witnesses

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By his Attorneys. Nicholas Motelet,

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(No Model.)

2 Sheets—Sheet 2.

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REFRIGERATOR.

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Fig. 2.

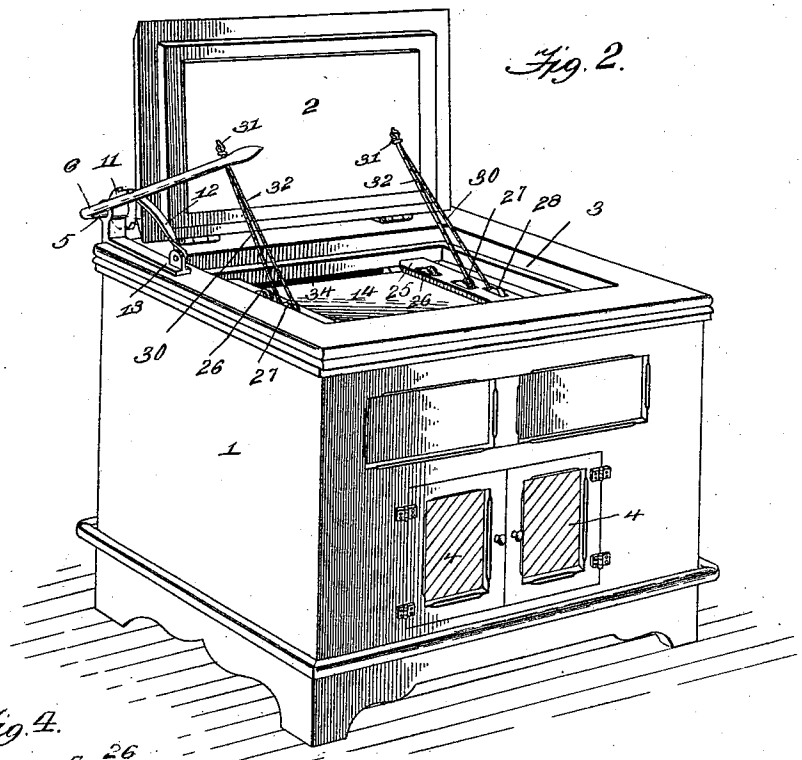


Fig. 4.

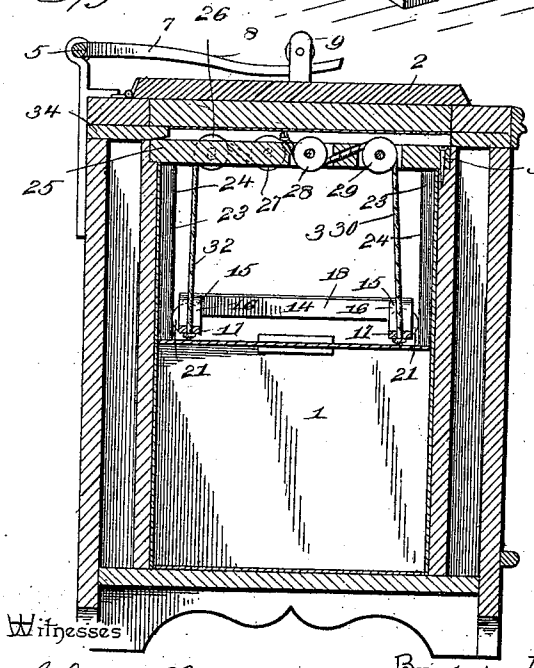
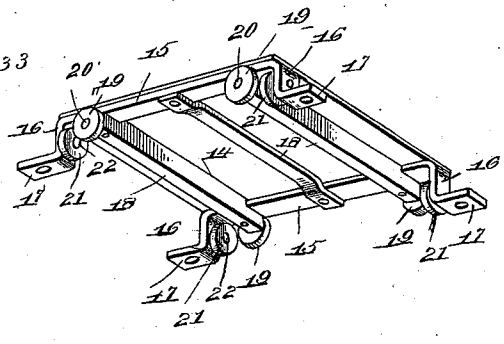


Fig. 5.



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UNITED STATES PATENT OFFICE.

NICHOLAS MOTELET, OF AVOCA, WISCONSIN.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 558,410, dated April 14, 1896.

Application filed February 14, 1895. Serial No. 538,425. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS MOTELET, a citizen of the United States, residing at Avoca, in the county of Iowa and State of Wisconsin, have invented a new and useful Refrigerator, of which the following is a specification.

This invention relates to an improvement in refrigerators, and has special reference to the means for opening and closing the same, and to the means for raising and lowering the ice-platform.

The object of my invention is to construct a refrigerator in such manner that the top may be easily and quickly thrown open with but slight exertion, and the ice-platform thereof raised and lowered simultaneously therewith by the same operating mechanism.

My invention consists in providing the hinged top of a refrigerator with a lifting-lever, and with means for holding the same open, in placing a vertically-movable ice-platform within the refrigerator and interposing connections between said platform and the hinged top for raising and lowering the platform, and in certain features and details of construction and arrangement of parts hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved refrigerator with the top closed, showing the mechanism for elevating said top. Fig. 2 is a similar view with the refrigerator-top thrown open. Fig. 3 is a longitudinal sectional view with the ice-platform elevated. Fig. 4 is a transverse vertical section through the same with the platform lowered. Fig. 5 is a detached perspective view of the ice-platform, showing the location of the various antifriction-rollers.

Similar numerals of reference indicate corresponding parts in the various figures of the drawings.

Referring to the drawings, 1 represents a refrigerator of any usual or preferred construction and dimensions, provided with the usual hinged top 2, and with an upper compartment or ice-chamber 3, and a lower compartment beneath the ice-chamber, and separated therefrom by an interposed partition of zinc or other suitable material, 4 4 representing the doors of said lower compartment through which meats, &c., are placed in and removed from the refrigerator.

5 indicates a rock-shaft mounted in bearings secured to the top of the refrigerator, preferably at or near the rear edge thereof, and provided with a suitable hand-lever 6, projecting downwardly therefrom, and located at one side of the refrigerator. The rock-shaft 5 at a point near the center, longitudinally, of the refrigerator has a forwardly-extending crank-arm 7, which is adapted to engage an antifriction-roller 8, located centrally of the hinged top. The roller 8 has its bearings in two upwardly-extending arms 9, secured to or formed on a plate 10 fastened to the upper face of the hinged top 2. The end of the crank-arm 7 projects between the arms 9, which serve to guide its movements, and underlies the roller 8.

11 indicates a ratchet-disk fast upon the rock-shaft 5, which is adapted to be engaged by a pivoted dog or pawl 12, hinged to a bar 13 on top of the refrigerator, as shown. It will be apparent that by rocking the lever 6 forward the forwardly-extending crank-arm 7, operating in connection with the rollers 8, will lift the hinged top 2, and the pawl or dog 12, engaging the ratchet-disk 11, will hold the door in its raised position.

14 indicates my improved ice-platform, which is vertically movable up and down in the ice-chamber. The platform 14 is supported by suitable longitudinal bars 15, underlying the same at the forward and rear edges thereof, as indicated. These longitudinal bars are provided with downwardly-projecting arms 16, which are in turn formed with laterally or horizontally extending portions or feet 17, and are connected by suitable cross-bars 18, riveted thereto, all of said platform-supporting bars being preferably made from strap or bar iron.

19 19 indicate antifriction-rollers, of which there are four, one located at or near each corner of the platform, and mounted on short stud shafts or trunnions 20, projecting forwardly and rearwardly from the ends of the cross-bars 18 above described. Another series of four rollers 21 are mounted on short stud

shafts or trunnions 22, projecting longitudinally and inwardly from the downwardly-projecting arms 16.

To the inner walls of the ice-chest are secured vertically-extending cleats or tracks 23, reaching from the bottom of the ice-chamber to the top thereof. The antifriction-rollers 19 travel up and down against the side or adjacent edges 24 of the cleats 23, and the other antifriction-rollers 21 move up and down against the inner faces of said cleats or tracks. The platform 14 is thus caused to travel steadily up and down, while the antifriction-rollers 19 and 21 prevent possible friction.

At either side of the ice-chamber and at the top thereof I locate two transversely-extending bars 25, in which are mounted a series of grooved pulleys 26, 27, 28, and 29, four in either bar.

30 indicates a cord or rope attached at one end to the feet 17 on the ice-platform frame, from whence said cord or rope passes up over the pulley 29, and thence under the pulley 28 and upward to an eye 31, secured to the lower face of the hinged top, the cord or rope being secured to said eye. Another cord 32, secured at one end to the other foot 17 on the same end of the ice-platform frame extends up over pulley 26, thence under pulley 27 and upward to the eye 31, above described. Similar cords or ropes and pulleys are provided on either side of the ice-platform, as shown in the drawings.

The operation of the device will be readily understood. When the hinged top is raised, as hereinbefore described, the cords or ropes 30 and 32 are drawn upward, causing them to travel around the pulleys in the manner just described, thereby raising the platform 14 from the position shown in Fig. 4 to the position indicated in Fig. 3. By means of the construction described a large block of ice, weighing from two hundred to two hundred and fifty pounds, may be placed upon the platform 14 and lowered in place by releasing the pawl 12 and allowing the lever 6 to move downward. By filling the chest with ice in one large block, instead of several small pieces, the ice will last much longer, and for this reason the refrigerator described will be found very economical in use. When it is desired to clean the ice-chest or to remove the ice-platform, the side bars 25 may be removed or lifted out of place by removing a couple of screws 33, one in the forward end of each side bar, when the side bars may be withdrawn by sliding the rear ends thereof from under the overhanging lips 34, as shown. The ice-platform may now be entirely removed from the refrigerator, cleaned, and replaced therein.

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 this invention.

Having thus described my invention, what I claim is—

1. In a refrigerator, a vertically-movable ice-platform in combination with a hinged top, suitable pulleys and cords or ropes interposed between the top and the ice-platform, horizontal pulley-supporting side bars, and means substantially as described whereby said side bars may be removed for permitting the withdrawal of the ice-platform, for the purpose described.

2. The combination with a refrigerator having a fixed provision-chamber in the lower part, of a movable ice-platform in the upper part of the refrigerator, a lid or cover at the top thereof, and connections between said platform and refrigerator-lid whereby on lifting the lid the platform is brought up into position and made accessible for loading or cleaning, substantially as described.

3. The combination with a refrigerator having a fixed provision-chamber in the lower part, of a movable ice-platform in the upper part of the refrigerator, a lid or cover at the top thereof, a rock-shaft having an arm in engagement with said lid or cover, a lever for operating said rock-shaft, and connections between said ice-platform and lid or top, whereby on lifting the lid, the platform is brought up into position and made accessible for loading or cleaning, substantially as described.

4. The combination with a refrigerator having a fixed provision-chamber in the lower part, of a movable ice-platform in the upper part of the refrigerator, antifriction-rollers journaled on said platform, vertically-disposed cleats within the upper part of the refrigerator and against which said rollers travel, a lid or cover at the top of the refrigerator, and connections between said ice-platform and the refrigerator-lid or top, whereby on lifting the lid the platform is brought up into position and made accessible for loading or cleaning, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

NICHOLAS MOTELET.

Witnesses:
F. A. REUTER,
P. G. SCHWINGÉ.