

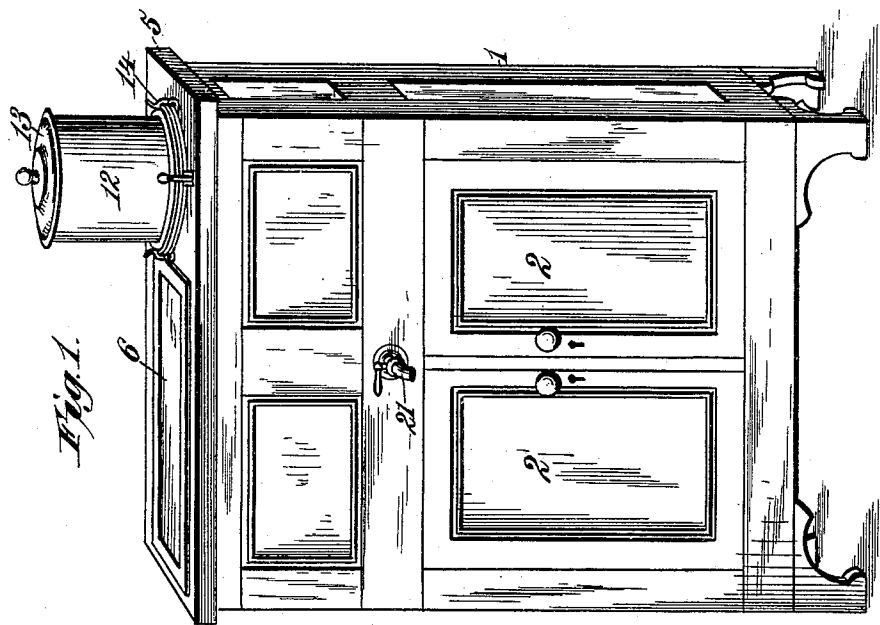
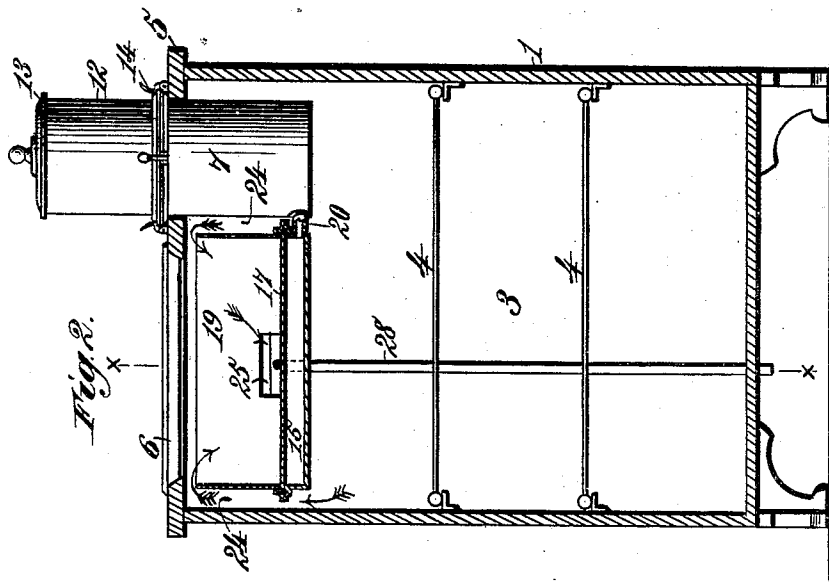
(No Model.)

2 Sheets—Sheet 1.

W. H. PICKETT.
WATER COOLING REFRIGERATOR.

No. 475,414.

Patented May 24, 1892.



Witnesses.

Robert Smith.

J. A. Kitchenford.

Inventor.

William H. Pickett.

By James L. Norris, Atty.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

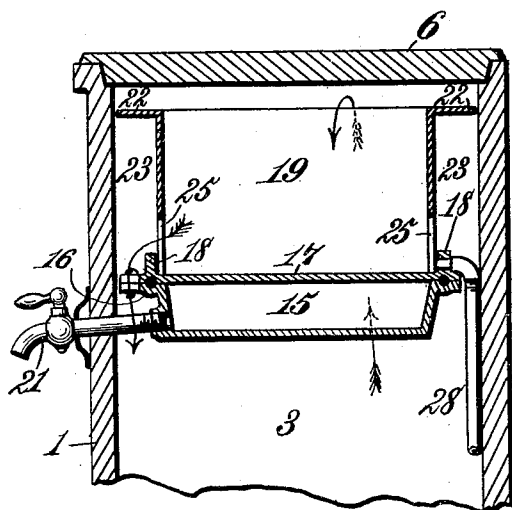


Fig. 4.

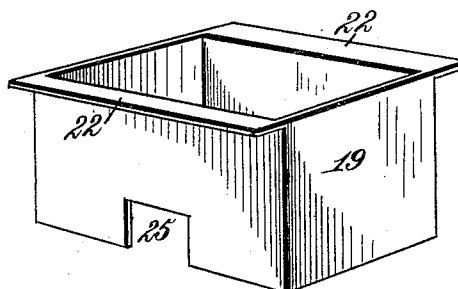


Fig. 5.

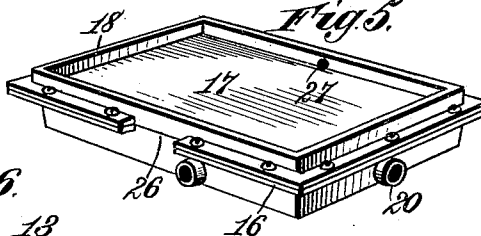
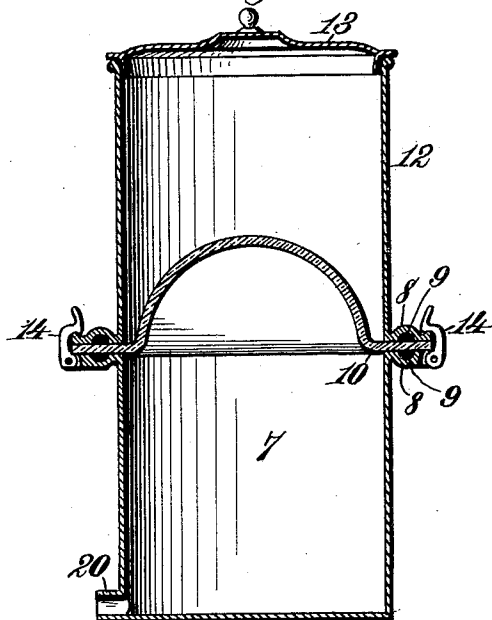


Fig. 6.



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Inventor:
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By
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Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. PICKETT, OF WARREN, PENNSYLVANIA.

WATER-COOLING REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 475,414, dated May 24, 1892.

Application filed August 12, 1891. Serial No. 402,462. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PICKETT, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented new and useful Improvements in Water-Cooling Refrigerators, of which the following is a specification.

This invention has for its object to provide a novel, simple, efficient, and economical domestic refrigerator, which is specially constructed to refrigerate the preserving-chamber, filter and cool drinking-water, and enable the ice-chamber and the water-cooling and ice-supporting box to be conveniently and thoroughly cleaned when occasion demands.

To accomplish this object my invention involves the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of a refrigerator embodying my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a sectional view taken on the line *xx*, Fig. 2. Fig. 4 is a detail perspective view of the casing, which constitutes the side walls of the ice-chamber. Fig. 5 is a detail perspective view of the water-cooling and ice-supporting box, and Fig. 6 is a vertical sectional view of the water-filter.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates a refrigerator structure having opening and closing doors 2 and the preserving-chamber 3, provided with suitable shelves 4, or otherwise constructed to fulfill the conditions required in a domestic refrigerator.

The horizontal top wall 5 of the refrigerator structure is provided with an opening and closing door 6, and at one side thereof with a circular orifice in which is suspended a water-filter 7, constructed of upper and lower cylindrical sections provided with flanges 8 at their adjoining ends. The flanges 8 are grooved to receive packing-rings 9, and between the flanges is clamped the annular edge

of a filtering plate or disk 10, which, as here shown, is dome-shaped to increase its superficial area, and thereby promote the filtering of the drinking-water contained in the uppermost section 12 of the filter. The top portion of the filter is provided with a suitable lid or cover 13 for introducing the water to be filtered; but, obviously, the water could be supplied by a pipe connection with a street main, and consequently I do not confine myself to any particular means of introducing the water into the uppermost section of the filter. The flange 8 of the lower filter-section is provided with pivoted catches 14, adapted to engage the flange 8 on the upper filter-section for the purpose of clamping the two sections together, and thereby firmly securing the filtering-plate or disk in position, while enabling such plate or disk to be conveniently and quickly removed for the purpose of cleaning the same. The flange 8 on the lower filter-section rests upon the top wall of the refrigerator structure, and consequently the upper filter-section is exposed and can be conveniently removed and replaced for the purpose of removing and replacing the filtering plate or disk. This is a very desirable construction in a domestic refrigerator, in that it facilitates cleaning the filter and at the same time enables water to be supplied to the filter without opening any part of the refrigerator structure.

In the top portion of the refrigerator, at a point under the door 6, is arranged a hollow water-cooler composed of a box 15, having a lateral flange 16 at its upper edge, to which is bolted or otherwise detachably secured a top wall 17, having a surrounding vertically-projecting rim 18 in proximity to its edges for retaining in proper position a removable and replaceable casing 19, Fig. 4, which is adapted to rest upon the top wall of the water-cooling box and bear against the inner surface of the surrounding rim 18.

The water-cooling box may be suspended within the refrigerator through the medium of any devices suitable for the conditions required, and the box is provided with a tube 20, connecting with the filtered-water chamber of the filter in such manner that the hollow box is constantly supplied with filtered water. The hollow box is also provided with a discharge-faucet 21, extending through the

front wall of the refrigerator structure for the purpose of discharging the cooled water whenever desired.

The removable and replaceable casing 19 serves to confine the ice in position on the water-cooling box, and such casing is provided at its front and rear edges with laterally-projecting flanges 22 to rest against the front and rear walls of the refrigerator structure, and thereby close the upper end portions of the front and rear air-flues 23. The ends of the casing are flangeless and are respectively located at some distance from the filter and from one end wall of the refrigerator structure for the purpose of providing the air-circulating flues 24, whereby the air rising through the said flues 24 is caused to pass over the end walls of the casing 19 and descend through the ice to and through lateral air recesses or notches 25, formed in the front and rear walls of the casing 19.

The flange 16 of the water-cooling box 15 is provided with a recess or notch 26, where such flange bears against the front wall of the refrigerator structure, and this recess or notch 26 is directly beneath and in alignment with the recess or notch 25 in the casing 19, so that the air flowing through the recess or notch 25 can descend through the recess or notch 26 into the preserving-chamber 3.

The water-cooling-box is preferably composed of cast metal surfaced with porcelain, in order to render it susceptible of being preserved perfectly clean. The hollow water-cooling box sustains the ice, and in fact constitutes the bottom wall of the ice-chamber, the side walls of such ice-chamber being formed by the removable and replaceable casing 19. The removability of the casing 19 renders it possible to thoroughly clean the air-circulating flues, and also to gain access to the entire upper surface of the water-cooling box for wiping it clean.

The rim 18 of the water-cooling box is provided with a discharge-orifice 27, communicating with a drip-pipe 28 for the purpose of conducting away the drippings resulting from the melted ice.

The hollow water-cooling box is imperforate, except as regards the points where it connects with the water-filter and with the discharge-faucet, and while it might be possible to cast the hollow box in a single piece I construct it of two sections, as hereinbefore explained, whereby the process of manufacture is facilitated and the interior can be cleaned if occasion demands.

By my invention I provide a novel, simple, efficient, and economical construction which is well adapted for preserving perishable articles, filtering and cooling drinking-water, and thoroughly cleansing the air-circulating flues, the ice-chamber, and the ice-supporting box. If it is desired to supply the water to the filter under pressure from a street-main, the lid or cover 13 should be clamped in position, as usual, to secure a water-tight joint.

Having thus described my invention, what I claim is—

1. The combination, with a refrigerator having a provision-chamber and an ice-chamber, of a water-filter supported at the top portion of the refrigerator, a hollow water-cooling box composed of imperforate top and bottom walls constituting the bottom of the ice-chamber for supporting the ice and provided with a discharge-faucet and a tube connection with the filter, and a removable and replaceable casing resting upon the hollow box and adapted to be removed through the top of the refrigerator, substantially as described.

2. The combination, with a refrigerator having a provision-chamber and an ice-chamber, and a top wall provided with a lid or cover and an orifice at one side thereof, of a water-filter suspended in said orifice and comprising a detachable section rising above the top wall of the refrigerator, fastening devices for detachably connecting the said section with the base of the filter, and a hollow water-cooling box constituting the bottom of the ice-chamber for supporting the ice, and provided with a discharge-faucet and a tube connection with the filter inside the refrigerator, substantially as described.

3. The combination, with a refrigerator having a provision-chamber and an ice-chamber, of a water-filter supported at the top portion of the refrigerator and a hollow water-cooling box provided with a detachable top wall, a discharge-faucet, and a tube connection with the filter, substantially as described.

4. The combination, with a refrigerator having a provision-chamber and an ice-chamber, of a water-filter supported at the top portion of the refrigerator, a hollow water-cooling box constituting the bottom of the ice-chamber for sustaining the ice, and provided with a surrounding vertically-projecting rim, a discharge-faucet and a tube connection with the filter, and a removable and replaceable casing resting upon the water-cooling box against the vertically-projecting rim thereof and provided in its sides with air-circulating recesses or notches, substantially as described.

5. The combination, with a refrigerator having a provision-chamber and an ice-chamber, of a water-filter supported at the top portion of the refrigerator, a hollow water-cooling box constituting the bottom of the ice-chamber for supporting the ice and provided with a surrounding vertically-projecting rim, a discharge-faucet and a tube connection with the filter, and a removable and replaceable casing resting upon the water-cooling box and having its side walls provided with air-circulating recesses or notches, and lateral flanges to bear against opposite walls of the refrigerator, substantially as described.

6. The combination, with a refrigerator having a provision-chamber and an ice-cham-

ber, of a water-filter supported at the top
portion of the refrigerator, a hollow water-
cooling box composed of detachably-connect-
ed sections and constituting the bottom of the
5 ice-chamber for supporting the ice, a tube
connection between the hollow box and the
filter, a discharge-faucet for the box, and a re-
movable and replaceable casing resting upon
the water-cooling box, substantially as de-
10 scribed.

7. The combination, with a refrigerator
having a provision-chamber and an ice-cham-
ber, of a water-filter supported at the top
portion of the refrigerator, a hollow water-
15 cooling box composed of detachably-connect-
ed upper and lower sections, one of which is
provided with lateral flanges having air-cir-
culating recesses or notches, a tube connec-
tion between the hollow box and the filter, a
20 discharge-faucet for the box, and a removable
and replaceable casing resting upon the box
and provided with air-circulating recesses or
notches in its side walls, and laterally-pro-

jecting flanges to bear against opposite sides
of the refrigerator, substantially as described. 25

8. The combination, with a refrigerator
having a provision-chamber, an ice-chamber,
and a top wall provided with an orifice, of a
water-filter composed of detachably-connected
upper and lower sections having an inter- 30
posed removable and replaceable filtering
plate or disk and the lower section provided
with flanges resting against the top wall of the
refrigerator for the purpose of suspending the
filter therein, a water-cooler constituting the 35
bottom of an ice-chamber and having a tube
connection with the filter inside the refrig-
erator, and a discharge-faucet for the water-
cooler, substantially as described.

In testimony whereof I have hereunto set 40
my hand and affixed my seal in presence of
two subscribing witnesses.

WILLIAM H. PICKETT. [L. S.]

Witnesses:

H. T. BARBER,

T. O. SLATER.