C. D. STOLL.

REFRIGERATOR.

APPLICATION FILED JUNE 10, 1910.

1,019,100.

Patented Mar. 5, 1912.

2 SHEETS—SHEET 1.

Fig 1

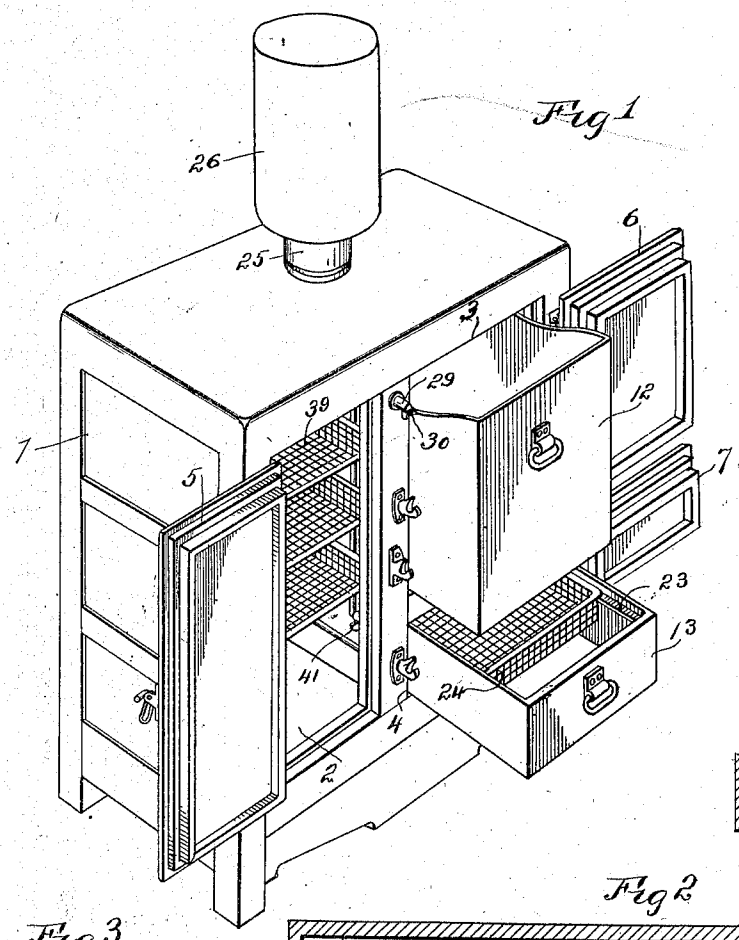


Fig 4

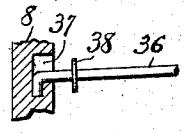


Fig 2

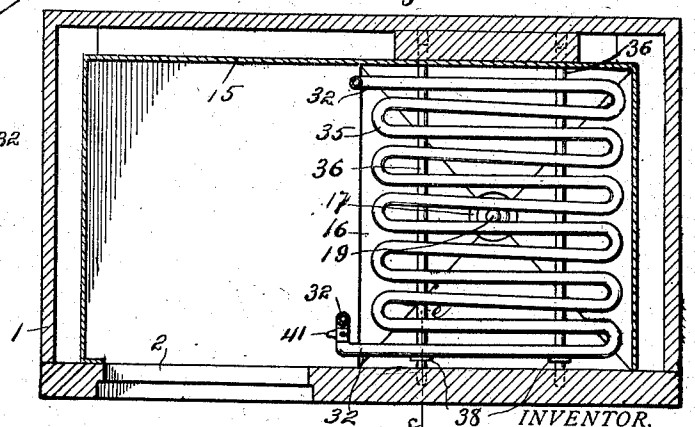
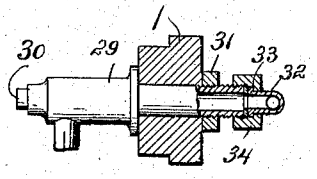


Fig 3



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2 SHEETS—SHEET 2.

Fig 6

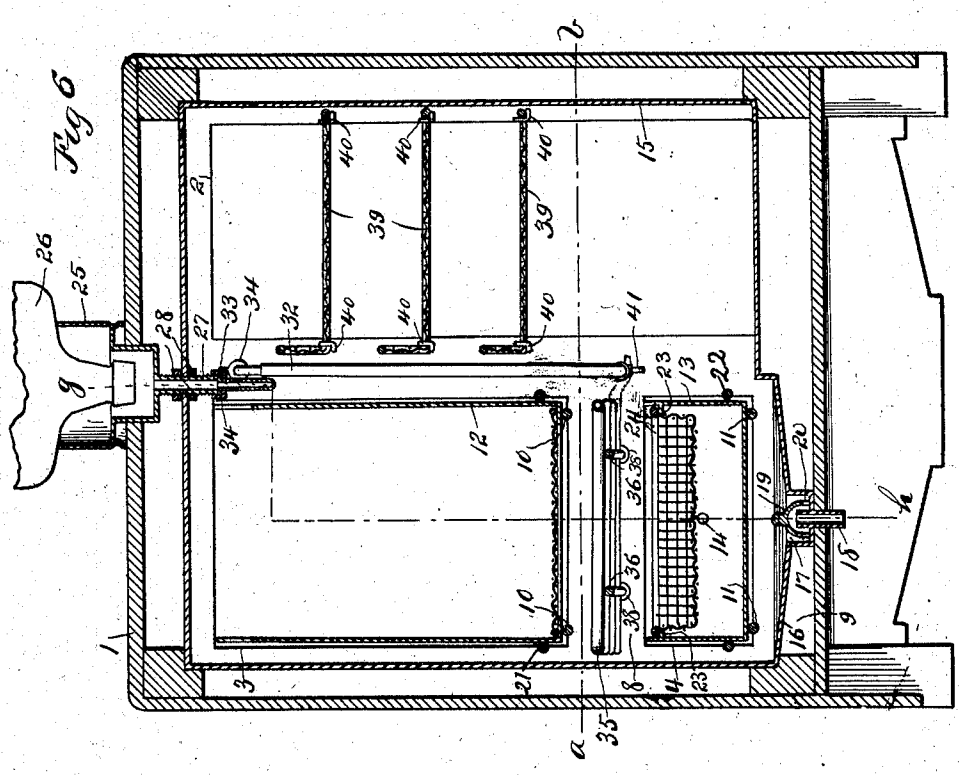
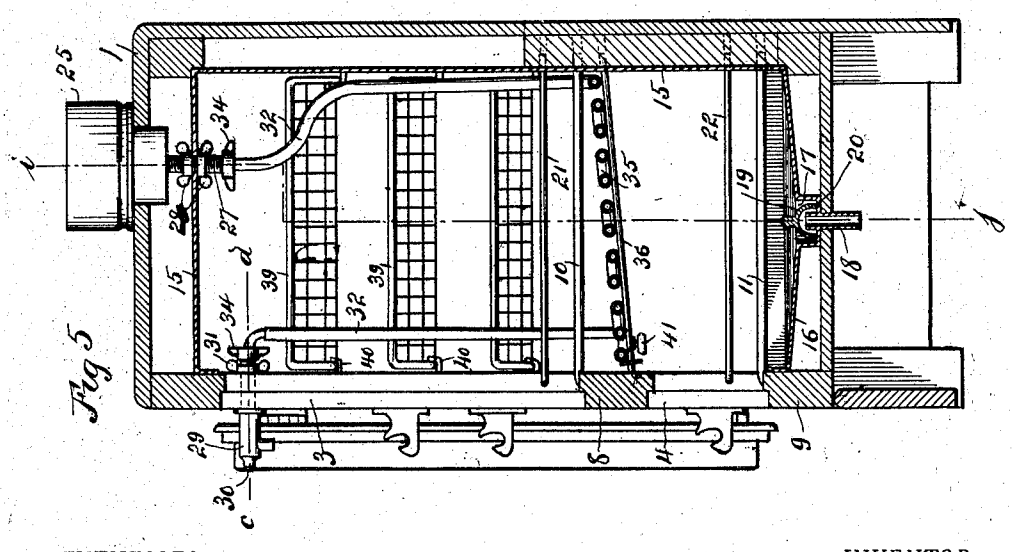


Fig 5



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UNITED STATES PATENT OFFICE.

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REFRIGERATOR.

1,019,100. Specification of Letters Patent. Patented Mar. 5, 1912.

Application filed June 10, 1910. Serial No. 566,247.

To all whom it may concern:

Be it known that I, CORUS D. STOLL, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

My invention relates to improvements in refrigerators.

The object of my invention is to provide a refrigerator which may be readily cleaned and kept in a sanitary condition.

My improved construction permits the ready removal of all the parts which are in contact with food or which are liable to become foul.

My invention provides further novel means by which a plentiful supply of cold drinking water may be provided in the refrigerator, the water being cooled by the ice which is employed to reduce the temperature of the interior of the refrigerator.

The novel features of my invention are hereinafter more fully described and claimed.

In the accompanying drawings illustrative of the preferred form of my invention, Figure 1 is a perspective view, the drawers being shown partly withdrawn and the doors open. Fig. 2 is a horizontal section taken on the plane of the dotted line *a—b* of Fig. 6. Fig. 3 is an enlarged detailed section on the dotted line *c—d* of Fig. 5. Fig. 4 is an enlarged vertical detailed sectional view on the dotted line *e—f* of Fig. 2. Fig. 5 is a vertical section on the dotted line *g—h* of Fig. 6. Fig. 6 is a vertical sectional view on the dotted line *i—j* of Fig. 5.

Similar characters of reference denote similar parts.

1 denotes the refrigerator casing having in its front wall openings 2, 3 and 4 which are normally respectively closed by doors 5, 6 and 7. The openings 3 and 4 are separated by a horizontal bar 8. At the bottom of the opening 4 is a horizontal bar 9. The bars 8 and 9 are each provided in their upper sides with notches or recesses in which are mounted the forward ends of two sets of supporting bars 10 and 11 which are preferably thicker than the depths of the recesses in which they lie. The rear ends of the rods or bars 10 and 11 are removably mounted in holes extending rearwardly from the forward side of the rear wall of the casing. The two sets of bars 10 and 11 are disposed horizontally and normally support respectively two drawers 12 and 13 slidable respectively through the openings 3 and 4. The drawer 12 comprises an ice receptacle and is provided with a perforated bottom disposed so as to discharge water produced by melting ice into the lower drawer 13. The lower drawer 13 is provided with a discharge opening 14 in one vertical wall through which water is discharged upon the bottom of the casing's lining 15. This lining is provided in its bottom portion with a depressed portion 16 which converges to a central recess 17 into which projects a vertical discharge pipe 18 which also extends downwardly through the bottom of the casing 1. An inverted cup 19 normally covers the upper end of the pipe 18 and is provided in its lower edge with notches 20 for the passage of water from the outside to the inner side of the cup. The cup 19 and pipe 18 serves as a trap for permitting water to escape from the refrigerator but preventing the entrance of air through the discharge pipe 18.

Horizontal side guide bars 21 are disposed at opposite sides of the drawer 12 and have their rear ends mounted in some of the holes provided in the rear casing wall. The forward ends of the bars 21 are laterally turned and are mounted in horizontal holes provided in the casing front wall at opposite sides of the opening 3. Similar horizontal guide bars 22 are similarly mounted at opposite sides of the drawer 13, the rear ends of the guide rods 22 being mounted in holes in the rear wall, and the laterally turned forward ends being mounted in horizontal holes in the front casing wall at opposite sides of the opening 4.

The bars or rods 10 and 11 are removable and serve to support the drawers 12 and 13 out of contact with the bars 8 and 9 respectively when the drawers are slid in and out of their respective openings. The side guide bars or rods 21 and 22 prevent the drawers 12 and 13 from rubbing the casing 1 at the sides of the openings 3 and 4 when the drawers are slid in and out. These bars are also removable.

The drawer 13 above the opening 14 is provided on its inner side walls with hori-

zontal forwardly and rearwardly extending guides 23' on which is slidably mounted a tray 24 having preferably a perforate bottom and adapted to contain food, such as lettuce. The drawer below the tray 24 is normally filled with cold water and is adapted to contain bottles. By having the tray 24 slidable forward and backward, access may be more readily had to the articles stored below the tray.

I provide a water conductor by which cool drinking water may always be had, the water being cooled by the ice in the drawer 12. This conductor comprises an inlet portion 25 having an open top adapted to receive therein the neck of an inverted bottle 26 containing the water supply. The inlet portion 25 rests upon the top of the casing 1 and extends through the top of the casing and the top of the lining 15. That portion which extends through the lining is preferably an externally threaded pipe 27 on which are fitted two clamping nuts 28 which are disposed at opposite sides of the top of the lining 15 against which the nuts rest and hold the inlet portion of the conductor from being disturbed in its position. Through the forward side of the casing 1 extends a horizontal discharge portion 29 of the water conductor. This portion, outside the casing is provided with a suitable draw off cock or faucet 30. The inner end of the portion 29 is externally screw threaded and has mounted on it a nut 31 which bears against the inner side of the front wall of the casing and holds the portion 29 in position.

An intermediate portion 32 of the water conductor has peripheral flanges at its ends denoted by 33, the ends respectively abutting against the inner ends of the pipe 27 and the threaded portion of the portion 29. Two union nuts 34 are rotatively mounted on the intermediate portion 32 and bear against the flanges 33. Said nuts 34 are respectively mounted on the pipe 27 and the threaded inner end of portion 29, and serve to detachably secure the intermediate portion to the inlet and discharge portions of the water conductor. The intermediate portion 32 is removable through the opening 2.

The intermediate portion 32 is provided with a sinuously formed portion 35 which rests upon inclined rods 36 the rear ends of which are mounted removably in holes in the front side of the rear wall of the casing 1 and lining 15. In the rear side of the bar 8 are provided recesses 37 each having a depressed portion in which is mounted the downwardly turned end of one of the rods 36, as shown in Fig. 4. By lifting the forward ends of the rods 36 and moving them backwardly the rods 36 may be removed from the recesses 37 and then withdrawn forwardly from the holes in which the rear ends are mounted.

On the rods 36 near their forward ends are mounted respectively washers 38 which are out of contact with the bar 8 and serve to prevent water which accumulates on the rods 36 from running forward to and upon the bar 8, the water so collecting being discharged into the drawer 13.

39 denotes wire shelves mounted one above the other to the rear of the opening 2 and upon hooks 40 secured to the inner walls of the lining 15. The ends of the shelves next the drawer 12 are preferably upwardly turned so as to prevent articles on the shelves from striking the drawer. The shelves may be readily lifted from the hooks 40 and removed through the opening 2.

By removing the nuts 34 from the pipe 27 and portion 29 the intermediate portion 32 may be removed through opening 2. By removing the lower clamping nut 28 the inlet portion 25 may be upwardly removed from the casing. By removing the nut 31 the discharge portion 29 may be removed from the casing. The cup 19 may be removed and the bars 10, 11, 21 and 22 as well as the rods 36 may be readily removed from the refrigerator, thus permitting easy access to all interior parts for the purpose of cleaning.

The intermediate portion 32 is provided at a point lower than the lowest portion of the sinuous portion thereof with a drain or draw off cock 41 by which in cold weather the water may all be withdrawn from the water conductor to prevent its freezing, or for the purpose of removing dirt which may collect in the water conductor. The sinuous portion 35 is disposed obliquely to the horizontal so that the dirt will all collect near the draw off cock 41. The draw off cock is located in the refrigerator chamber so that when the cock is opened the water from the water conductor will be discharged upon the bottom of the chamber, from which it can pass by way of the discharge pipe 18. This construction eliminates the employment of a separate vessel for catching the water drawn from the said cock 41, such a vessel being required if the cock drained outside the refrigerator chamber. This arrangement, therefore, avoids labor and annoyance in connection with the draining of the conductor.

My invention may be modified in different ways, within the scope of the appended claims, without departing from its spirit.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

1. In a refrigerator, a casing having a compartment, a water conductor having a sinuously formed portion located in said compartment, an inclined rod supporting said sinuously formed portion and having its ends supported by the opposite walls of the casing, and a washer secured on said rod

near its lower end but out of contact with the adjacent wall.

2. In a refrigerator, a casing having a compartment, a water conductor having a sinuously formed portion within and removable from the compartment, an inclined rod supporting the sinuously formed portion and having its ends detachably supported by opposite walls of the casing, and a washer secured on the rod near its lower end but out of contact with the adjacent wall of the casing.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

CORUS D. STOLL.

Witnesses:
E. B. HOUSE,
CHESTER THOMAS.