M. LEVIN.

ICE BOX.

APPLICATION FILED JAN. 20, 1915.

1,237,665.

Patented Aug. 21, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

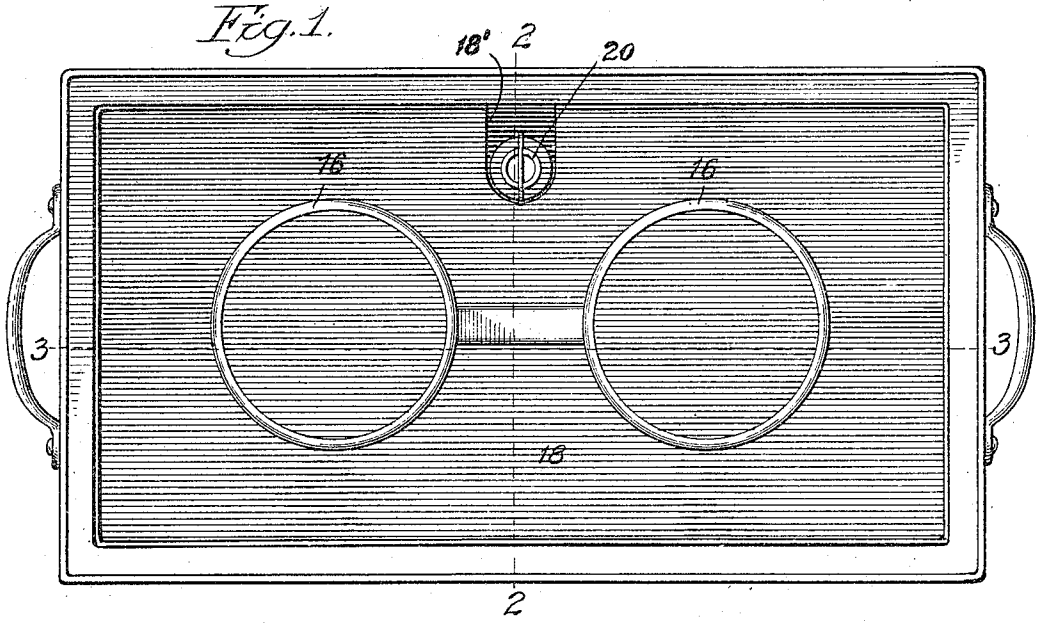
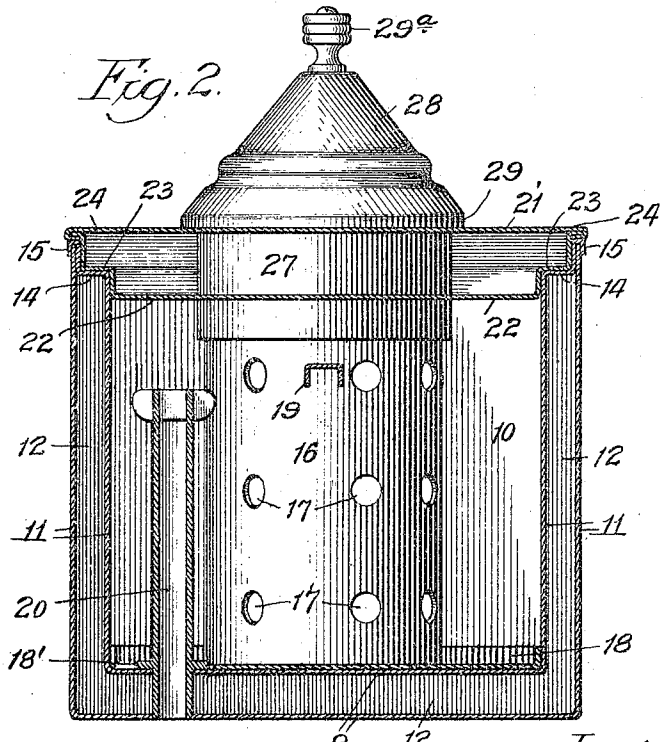


Fig. 2.



Witnesses:
John Enders.
Mildred Stumpf.

Inventor:
Max Levin
by Fred Gerlach
his Atty.

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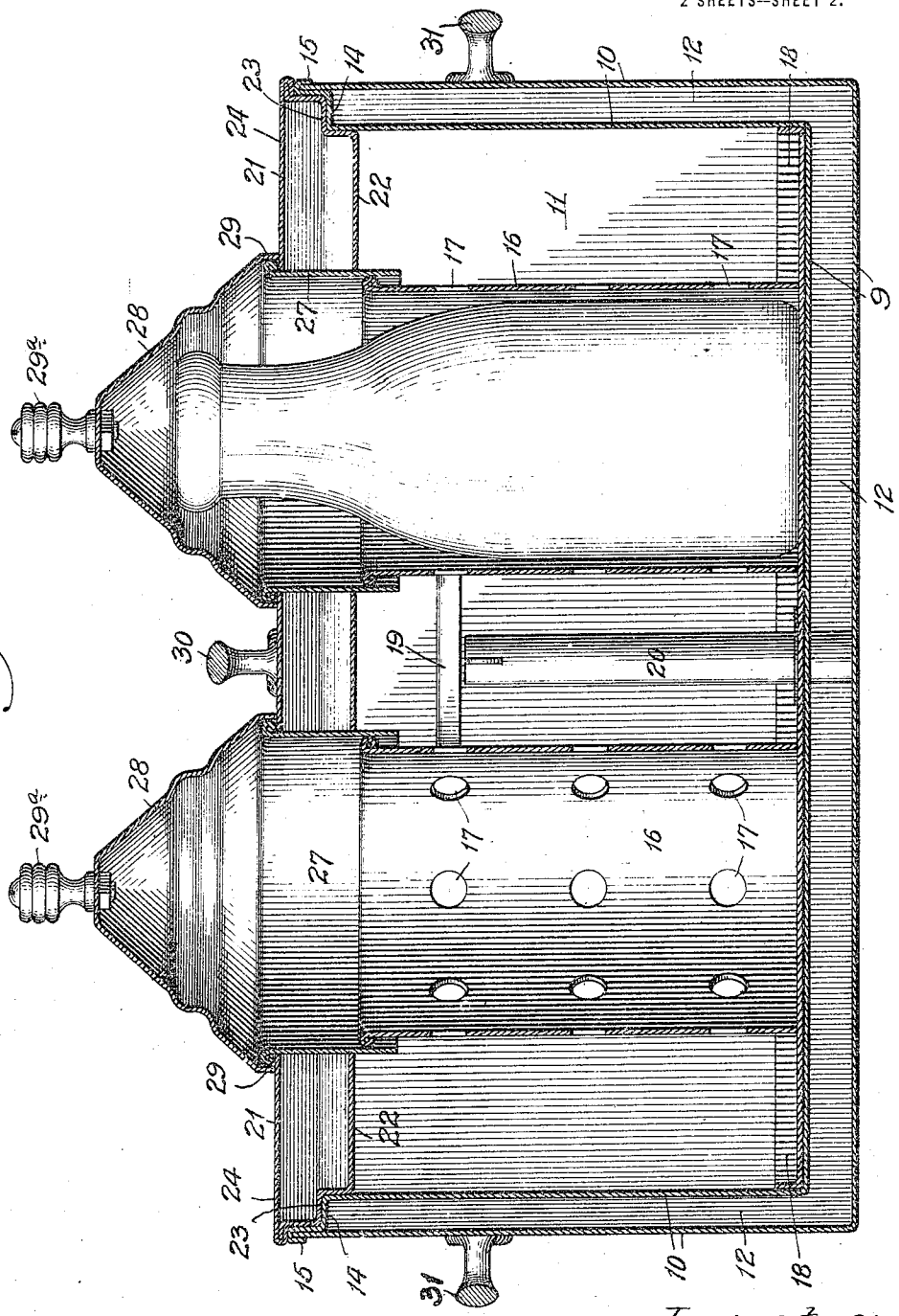

Fig. 3.

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UNITED STATES PATENT OFFICE.

MAX LEVIN, OF CHICAGO, ILLINOIS.

ICE-BOX.

1,237,665. Specification of Letters Patent. Patented Aug. 21, 1917.

Application filed January 20, 1915. Serial No. 3,192.

To all whom it may concern:

Be it known that I, MAX LEVIN, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ice-Boxes, of which the following is a full, clear, and exact description.

The invention relates to ice boxes or refrigerators more particularly designed for containing bottles of milk or other liquids to which ready or frequent access is desired.

In public places where liquid refreshments are sold, it is common practice to refrain from replacing the stopper every time liquid is poured from the bottle, because the time consumed in handling the stopper results in delay in service. In many places, to facilitate the service, the bottles are kept in an open vessel containing cracked ice, to keep the contents of the bottle cool. This practice is not sanitary, because the bottle is usually left open. In residences—more particularly in connection with milk—the bottles are placed in a refrigerator without replacing the stopper after it has been removed the first time, which practice is also unsanitary, because the milk will absorb impurities in the atmosphere in the ice box or refrigerator.

The present invention designs to provide an improved ice box or refrigerator which affords ready access to the bottles and which is sanitary, so that it is not necessary to replace the stopper after each use and so that the contents of the bottle will be readily available and may be served without materially delaying the service in public places. The improved box may also be advantageously used in residences where it is desired to keep the contents of an open bottle cool and in a sanitary condition.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Figure 1 is a plan of the improved ice box, the cover being removed. Fig. 2 is a vertical section taken on line 2—2 of Fig. 1. Fig. 3 is a vertical longitudinal section taken on line 3—3 of Fig. 1.

The improved ice box comprises a body which forms a receptacle for containing the ice and bottles to be cooled. This receptacle is formed of sheet metal and comprises a bottom wall 9, end walls 10, and side walls 11. Each of these walls is formed of two separated thicknesses of metal to form an air insulating space in the bottom, sides and ends of the receptacle, so that the chamber in the box will be insulated from the atmosphere outside of the receptacle. The metal forming the inner member of walls 10 and 11 is bent outwardly as at 14 to form a shoulder below and adjacent the top of the outer member of said walls. The metal forming the inner wall is folded around the edge of the sheet forming the outer wall, as at 15, so that the air in the chamber 12 will be sealed.

The receptacle contains tubular bottle holders 16 which are secured to a tray 18 which is adapted to rest on the bottom of the receptacle and are approximately of the size of the bottles for which the box is intended. Openings 17 are formed in these tubular holders so that the cold air in the receptacle may pass into the holders. The receptacle is adapted to contain ice or other refrigerant, and bar 19 extends between the holders to firmly secure them together, the holders being preferably formed of thin sheet metal. The upper ends of holders 16 extend to a point somewhat below the top of the receptacle. An overflow pipe 20 for draining the excess liquid in the receptacle passes through the members of the bottom wall 9 and to that point at which it is desired to cause the water to overflow. The purpose of extending this drain pipe to that point is to prevent any drainage until there is too much accumulation of water in the receptacle, thus adapting the box to be placed on a counter or any other place which is not particularly adapted to receive drainage.

The top of the receptacle is open and is closed by a cover 21 which forms a removable top for the receptacle. When this top is removed, the receptacle may be charged with ice or cleaned, if desired. Cover 21 is also formed of sheet metal and comprises an inner wall 22 which is marginally recessed as at 23 to fit upon the shoulder 14 and the inner member of the side and end walls of the receptacle and the outer wall 24. The space between the inner and outer walls 22 and 24 of the cover insulates the top of the receptacle. The cover is provided with cylindrical shells 27 which extend through both walls of the cover and

are adapted to fit around the upper end of the tubular holders 16. These shells provide openings in the cover for the upper ends of bottles in the holders, so that the bottles may extend through the insulated cover and so that the upper ends of the bottles will be disposed above the top of the cover and readily accessible. A conoidal cap 28 is provided for each shell 27 and has its lower edge 29 formed to fit around the upper end of shell 27 which projects slightly above the outside of the cover so that the cap will be held against lateral displacement on the cover. A handle 29ª is secured to the upper end of each cap. A handle 30 is secured to the cover and handles 31 are secured to the ends of the receptacle.

When the receptacle is filled with ice and the cover is in position, either of the bottles may be readily removed from or replaced in the holders in the receptacle by removal of the caps 28. By providing a tubular holder 16 for the bottle, the latter may be readily placed in the receptacle so that it will not protrude unduly and prevent placement of the cap in position to close the upper end of the shell 27. In this structure, the upper end of the bottle is protected by the cap, so that impurities cannot fall into the bottle even though the stopper be left off. As a result, the service of liquid from bottles is not delayed by the necessity of corking the bottle and the contents are not exposed to impurities. The removable cover permits the box to be easily charged or cleaned. The tubular holders for the bottles insure the proper placement of the bottle in the receptacle by preventing ice from obstructing the bottle. The elevated overflow provided by pipe 20 causes the water to remain in the receptacle, thus adapting the box to be placed at any convenient point upon a counter or table, which is of material advantage where frequent access to the bottles is desired. The construction of the box is such as lends itself to the use of insulated walls which prevent waste of the refrigerant.

The box and holders may be thoroughly cleaned and this is facilitated by lifting the holders and tray 18 out of the box. The tray is cut away as at 18′, so it will clear the overflow pipe when being lifted out of the box.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the claims without departing from the spirit and scope of the invention.

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

1. An ice box comprising the combination of a receptacle having an ice chamber therein, an open top, a perforated tubular bottle holder in the receptacle, a removable cover for the receptacle having an opening therein to permit a bottle to be placed in the holder through the cover, holding means projecting from the top of the cover and around said opening and a hollow removable cap for said opening disposed above the top of the cover and around said holding means to inclose the protruding upper end of a bottle in the holder.

2. An ice box comprising the combination of a receptacle having an ice chamber therein, an open top, a perforated tubular bottle holder in the receptacle, a removable cover for said receptacle having a tubular shell fixed therein, said shell extending through and below the bottom of the cover to permit a bottle to be placed in the holder through the cover and being slidably fitted to the upper end of the tubular holder, and a hollow removable cap over the shell disposed above the top of the cover to inclose the protruding upper end of a bottle in the holder.

3. An ice box comprising the combination of a receptacle having an ice chamber therein, an open top, a perforated tubular bottle holder in the receptacle, a removable cover for said receptacle having a tubular shell fixed therein, said shell extending through the cover to permit a bottle to be placed in the holder through the cover and being slidably fitted to the upper end of the tubular holder, and a hollow removable cap over the shell disposed above the top of the cover to inclose the protruding upper end of a bottle in the holder, said shell being extended above the upper surface of the cover to form a flange for holding the cap.

4. An ice box comprising the combination of a receptacle having a bottom, side and end walls and an open top, a plurality of tubular perforated holders in the receptacle, a removable cover for the receptacle, tubular shells fixedly secured in the cover to permit bottles to be placed into the holders respectively through the cover, hollow removable caps for the shells disposed above the cover to inclose the protruding upper end of bottles in the holders, and a bar rigidly secured to and extending between the holders.

MAX LEVIN.

Witnesses:
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