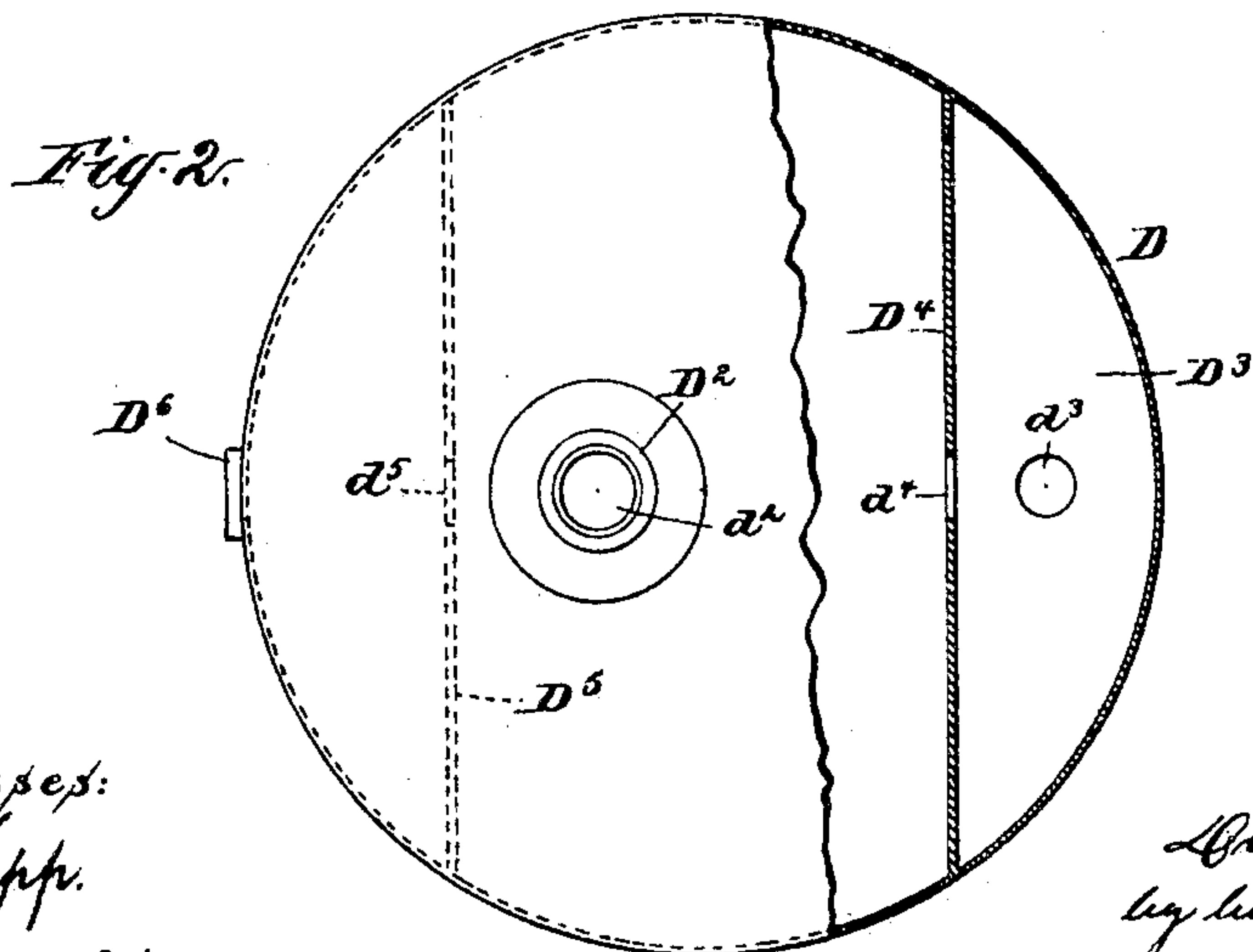
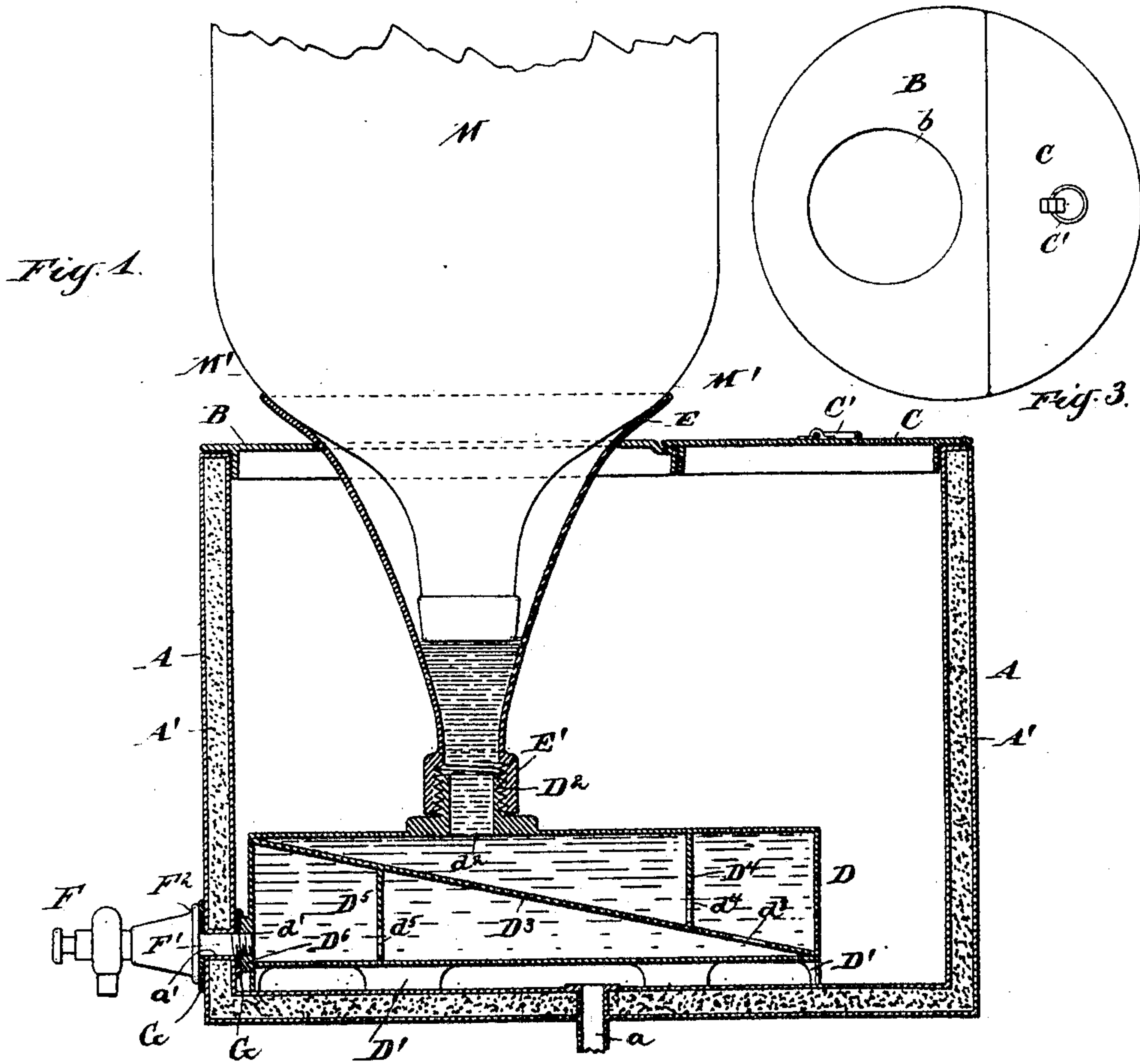


No. 798,935.

PATENTED SEPT. 5, 1905.

D. C. WALSH.
WATER COOLER.

APPLICATION FILED DEC. 14, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

DAVID C. WALSH, OF NEW YORK, N. Y.

WATER-COOLER.

No. 798,935.

Specification of Letters Patent.

Patented Sept. 5, 1905.

Application filed December 14, 1904. Serial No. 236,786.

To all whom it may concern:

Be it known that I, DAVID C. WALSH, a citizen of the United States, residing in the city of New York, borough of Manhattan, in the county and State of New York, have invented a certain new and useful Improvement in Water-Coolers, of which the following is a specification.

The invention relates to that class of water-coolers in which drinking-water is supplied from an inverted demijohn or large bottle and flows to a cooling-chamber surrounded by ice or other cooling medium, whence it is drawn as required.

The object of the invention is to provide a simple and efficient cooler, inexpensive to manufacture, and so constructed as to allow easy access to and removal of the interior parts for inspection, cleansing, and repairs.

The invention consists in certain novel features and details of construction by which the above objects are attained, to be hereinafter described.

The accompanying drawings form a part of this specification and show a preferred form of the invention.

Figure 1 is a diametrical vertical section, partly in elevation. Fig. 2 is a plan view, partly in horizontal section, of the cooling-chamber alone. Fig. 3 is a top or plan view of the water-cooler on a reduced scale with certain portions removed or omitted.

Similar letters of reference indicate the same parts in all the figures.

A is the casing or ice-containing vessel, preferably of cylindrical form, open at the top, and having double walls and bottom, the space between being filled with felt A' or other preferred non-heat-conducting material. A tube a in the bottom of the casing leads away the water resulting from the liquefaction of the ice to any suitable receptacle. (Not shown.)

The open top of the casing is closed by a removable deck B and a removable cover C, each of semicircular form. The cover C is provided with a lifting-ring C', by which it may be removed and replaced, as desired, in supplying ice to the interior of the casing. The deck B, comprising something more than half the circle, is held normally in place by a bottle-support E, received in a circular opening b in the deck.

D is the cooling-chamber of circular form

and having a diameter considerably in excess of its height, but less than that of the interior of the casing A, in which it is received. The cooling-chamber is preferably of copper or other metal lined with block-tin to preserve the purity of the water passing through it and is supported a little distance above the bottom of the casing by short legs D' to permit the escape of water from the melting ice to the drain and is placed eccentrically in the casing. In the top of the cooling-chamber is a threaded nipple D², located in the axial line of the opening b in the deck above, on which is screwed the lower end E' of the bottle-holder E of funnel shape, the upper portion flared to match to the aperture b and be partially supported by the deck, and also to the annular shoulder M' of a large bottle or demijohn M, inverted in the bottle-holder.

The interior of the circular cooling-chamber is divided diagonally from the top on one side to the bottom on the other into two compartments by an inclined partition-plate D³ of block-tin or metal coated therewith, and each of such compartments is again subdivided by vertical transverse partitions D⁴ and D⁵, one above and the other below the plate D³, as shown, each having an opening d⁴ and d⁵, respectively. The lower portion of the plate beyond the partition D⁴ is also provided with a similar opening d³, affording communication through the plate. The nipple D² surrounds an opening d² in the upper face of the cooling-chamber through which water is received above the plate D³ from the bottle-holder E, and d' is an opening in a boss D⁶ on one side of the cooling-chamber through which water is delivered from below the plate.

The cooling-chamber is held in place by a screw-threaded tube F', received in the boss D⁶ and forming part of a faucet F. The tube extends through an opening a' in the casing and when screwed home draws the boss D⁶ into close contact with the interior of the casing, the flange F² on the faucet serving as an abutment. Possible leakage of water from the interior of the casing is guarded against by rubber gaskets G, interposed either between the flange and boss and the casing or in both situations. The faucet illustrated is of the "push-button" type. Any approved style may be employed.

In assembling the parts, the deck B and

cover C being removed, the cooling-chamber D is inserted and the faucet F with its gaskets G inserted through the casing and screwed to the boss D⁶, the deck B is put in place, and the bottle-holder E inserted in the hole b and screwed to the nipple D², thus securing the deck B and cooling-chamber firmly in place relatively to the casing. Ice is then introduced through the remaining opening in the top of the casing and packed upon and in the crescent-shaped space around the cooling-chamber and the cover C replaced. The cooler is then ready to receive the bottle, which is inverted in the holder as usual, the water therein escaping until the cooling-chamber is filled and the water-level rises in the bottle-holder sufficiently to seal the mouth of the bottle and arrest further flow. More water is delivered as the level descends, due to withdrawal from the cooling-chamber through the faucet, as usual.

It will be noted that all the parts are easily removed, and any part found to be leaking or otherwise faulty may be replaced by another similar but perfect part without requiring the removal of the entire cooler for repairs. The invention is designed especially for use by customers of pure-water-supply dealers, and by providing the delivery agents with duplicate parts many of the repairs required may be quickly made by such agents without the inconvenience to the customer and to the dealer entailed by removing the cooler and the substitution of another while repairs are being made.

The inclined plate D³ causes the water to traverse the cooling-chamber twice and presents it in thin layers to the chilling effect of the ice. The vertical partitions D⁴ D⁵ serve with the inclined deck to subdivide the interior of the chamber, retard the flow in the several compartments, and also to strengthen the chamber to enable it to resist the strain due to the weight of the bottle, a portion of which is likely to be transmitted to the chamber instead of being sustained entirely by the deck B.

The surfaces in contact with the potable water are preferably of tin, as above described. The interior of the casing may be of zinc or galvanized iron, and the exterior and other exposed portions may be ornamented as desired.

Changes may be made in the forms and proportions of the parts. Such portions as the drip-pan, waste-water receptacle, and supporting-stand (not shown) may be understood to be of any ordinary or approved construction and arrangement.

I claim—

1. In a water-cooler, a casing, a removable cooling-chamber therein, a delivery-faucet on

the exterior of said casing, extending there-through and separably engaged with said chamber, a deck over a portion of the top of said casing, an aperture in said deck, and a bottle-holder matching said aperture and separably engaged with said cooling-chamber, whereby said chamber is held in position and said deck and chamber mutually aid in sustaining the weight of a bottle in said bottle-holder.

2. In a water-cooler, a casing, a removable cooling-chamber therein, a delivery-faucet on the exterior of said casing, extending there-through and separably engaged with said chamber, a removable deck over a portion of the top of said casing, a removable cover over the remaining portion of the top, an aperture in said deck, and a bottle-holder matching said aperture and separably engaged with said cooling-chamber, whereby said deck, cooling-chamber, and bottle-holder are held in position relatively to said casing and to each other.

3. In a water-cooler, a casing, a removable cooling-chamber therein, partitions in said chamber serving to strengthen the latter and induce a long travel of the water there-through, a delivery-faucet on the exterior of said casing, extending therethrough and separably engaged with said chamber, a deck over a portion of the top of said casing, an aperture in said deck, and a bottle-holder matching said aperture and separably engaged with said cooling-chamber, whereby said chamber is held in position and said deck and chamber mutually aid in supporting the weight of a bottle in said bottle-holder.

4. In a water-cooler of the character set forth, a cooling-chamber having an inlet and outlet, a division-plate arranged diagonally from the upper portion of one side of said chamber to the lower portion of the opposite side, dividing the interior of said chamber into upper and lower compartments, vertical partitions extending from the upper face of said division-plate to the top of said chamber and from the under face of said division-plate to the bottom of said chamber and subdividing said compartments, and apertures in said plate and partitions, said plate and partitions serving the double function of strengthening said chamber and causing water from said inlet to flow through said compartments and subdivisions successively to said outlet.

5. The water-cooler described, comprising a casing open at the top, a removable cooling-chamber therein having its interior divided into compartments and having an inlet at the top and an outlet on the side, a faucet on the exterior of said casing, extending therethrough and separably connected to said outlet, a removable deck over a portion of said open top, and a removable cover closing the remaining

portion, an aperture in said deck, and a bottle-holder received in said aperture and separably connected with said inlet and arranged to be supported by said deck and cooling-chamber, all combined and arranged to serve with a liquid-containing bottle, substantially as and for the purposes set forth.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

DAVID C. WALSH.

Witnesses:

MAURICE GREENZWEIG,
CHARLES R. SEARLE.