

No. 895,781.

PATENTED AUG. 11, 1908.

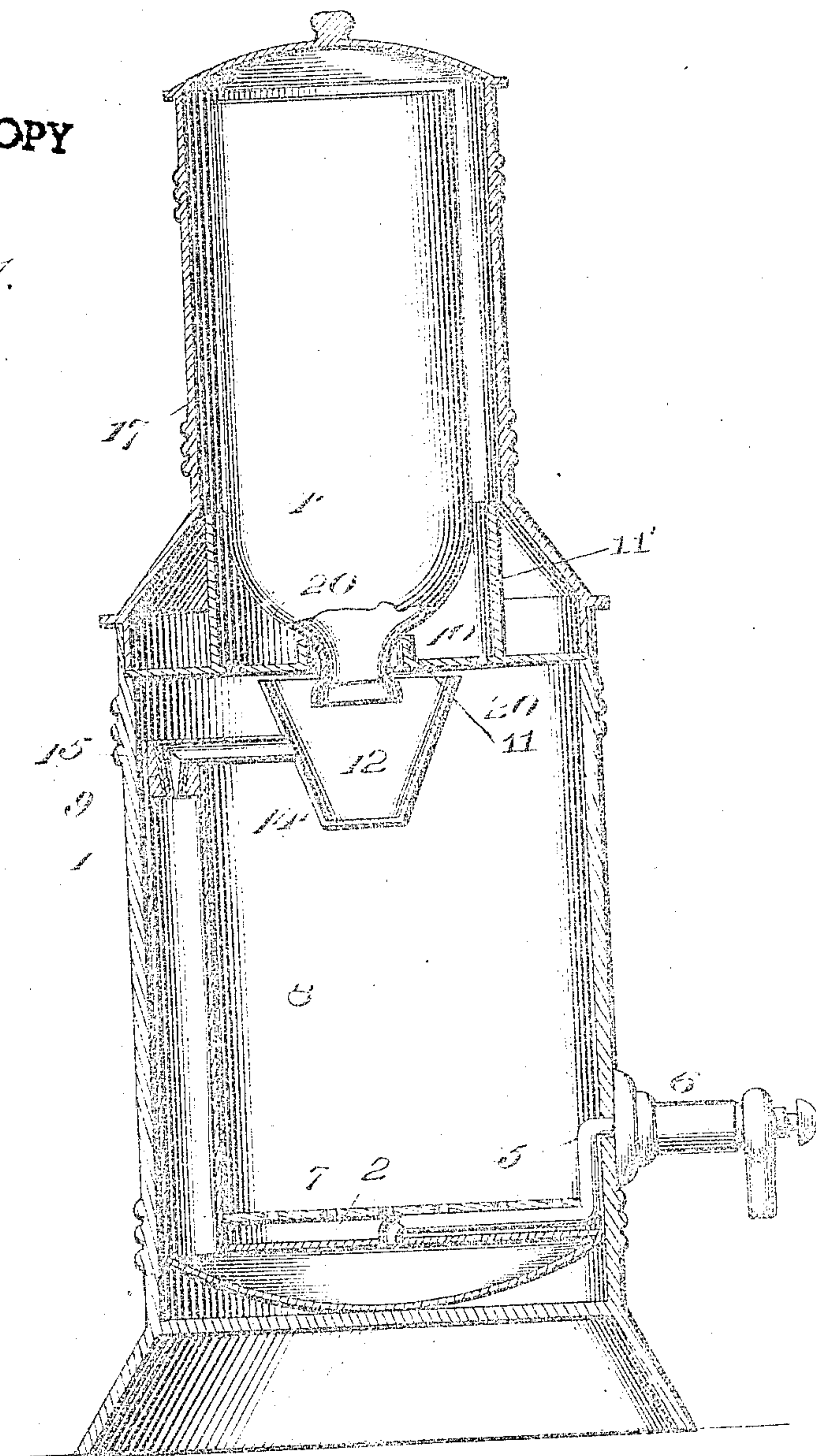
I. NEWELL.
WATER COOLER.

APPLICATION FILED JULY 22, 1902.

2 SHEETS—SHEET 1.

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FIG. 1.



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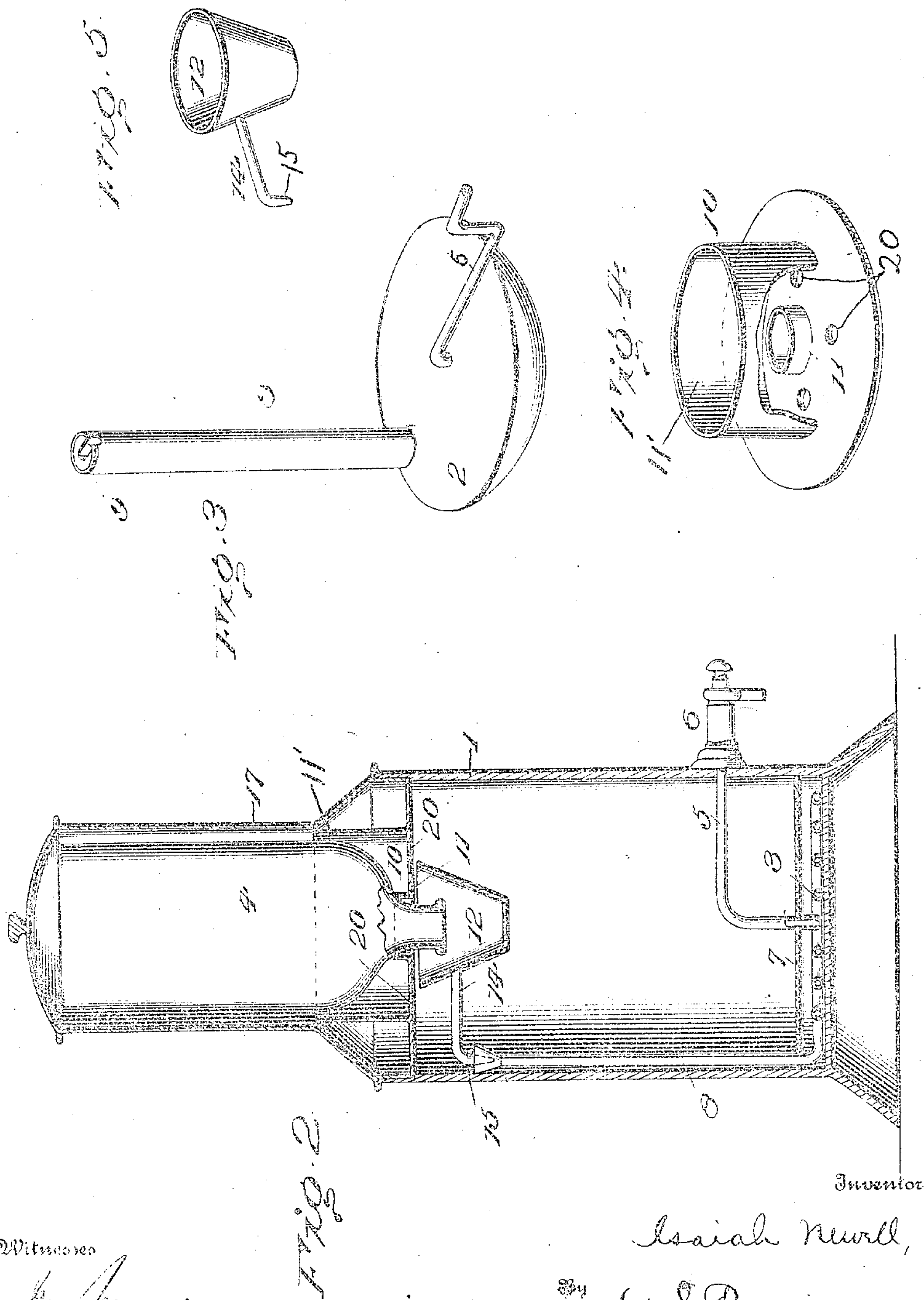
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2 SHEETS—SHEET 2.



Witnesses

per
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UNITED STATES PATENT OFFICE.

ISAIAH NEWELL, OF HAVERHILL, MASSACHUSETTS.

WATER-COOLER.

No. 895,781.

Specification of Letters Patent.

Patented Aug. 11, 1908.

Application filed July 22, 1902. Serial No. 116,562.

To all whom it may concern:

Be it known that I, ISAIAH NEWELL, a citizen of the United States, residing at Haverhill, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Water-Coolers, of which the following is a specification.

My invention relates to improvements in water coolers, and pertains to a construction which is adapted for users of mineral and distilled waters, whereby the same can be used directly in the cooler from the original package, bottle or demijohn, the construction being simple for enabling the bottle to be placed in position or removed, and for the purpose of inserting ice within the cooler.

By the use of my invention, the users of mineral and distilled waters, are enabled to use the water directly from the original package, and thus absolutely prevent any contamination of the water by coming in contact with the ice, or becoming contaminated by disease germs in any manner whatsoever, which insures the user that he is receiving the mineral or distilled water in its original pure condition, and at a proper cool temperature for pleasant drinking.

In the accompanying drawings, Figure 1, is a vertical sectional view of a cooler embodying my invention, showing a diaphragm at the bottom. Fig. 2, is a similar view showing a coil in the place of the diaphragm. Fig. 3, is a detached perspective view of the diaphragm and its connecting pipes. Fig. 4, is a detached view of the bottle supporting member. Fig. 5, is a detached view of the funnel into which the mouth of the bottle is inserted, and its connected pipe.

Referring to the drawings, 1 is the main or body portion of the cooler, and in which the ice is placed. Located within the body portion is a water receiver which extends upward to near the top thereof, and as here shown, consists of either a diaphragm 2 as illustrated in Fig. 1, or a coil of pipe 3. As here shown, the pipe 8 extends upward to near the top of the body portion 1, and communicates with a receptacle 12. The water from the original package, bottle, demijohn or other vessel 4, passes therefrom to the receptacle 12, thence through the pipe 8 and to the coil or diaphragm, at the bottom of the body portion 1.

In the two forms of construction here shown for carrying out the invention, the cooled water is dispensed from either the coil

pipe form 3, or the diaphragm form 2, through a pipe 5 which extends through the body portion 1 of the cooler, and carries a suitable faucet 6 at its outer end. The upper end of the pipe 8 is suitably supported at the inner side of the body portion and is provided with a conically shaped opening 9 constituted of block tin, which may or may not have an inner rubber lining.

Removably placed in the upper end of the body portion, is a cover or bottle supporting member 10, and this member has a centrally upwardly projecting flange 11 forming a flange opening for the neck of the original package, bottle or demijohn receptacle 4 and an outer upwardly-extending flange 11' which surrounds a portion of the bottle as shown. Placed immediately below the flange opening 11 is a receptacle 12 and this receptacle 12 carries a pipe 14 having a tapered end 15 fitting snugly and water tight the tapered opening 9 at the upper end of the pipe 8, but which is removable therefrom. The location of the receptacle 12 is such that the mouth of the bottle is inserted within the receptacle as clearly shown in Figs. 1 and 2, and serves as an automatic feed for the water from the bottle or demijohn 4 as it is being drawn through the faucet 6.

A bottle protecting case 17 is removably placed over the upper end of the main or body portion 1 of the cooler, and forms a protection for the bottle, and as a finish to the cooler.

In operation, when the bottle has become empty, the case 17 is removed, and the bottle is taken from its supporting member. The supporting member 10 and the receptacle 12 with its connecting pipe 14, are then removed. The desired quantity of ice is placed in the main or body portion 1 and the receptacle and bottle supporting member placed in position. The stopper is then removed from a filled bottle, and the bottle placed in position upon the supporting member 10. This supporting member 10 is provided with the openings 20, which will permit the water that may have been spilled in placing the bottle in position, to pass down into the main or body portion 1. The water then begins to flow from the bottle or demijohn 4 into the receptacle until the pipe 8, the diaphragm 2 or the coil of pipe 3, and the receptacle are filled. When the water reaches the mouth of the bottle, the flow will be automatically stopped, as is well under-

wood. As the water is being drawn from the faucet 6, and therefore is being also withdrawn from the receptacle 12, additional water is permitted to flow from the bottle automatically.

By means of a cooler of this form, less ice is required, and as before stated, contamination of the pure water absolutely prevented. There are no valves or siphon action in this device, and it is so simple that anyone can use or operate it, and it enables the user to obtain water from the original package, which is an absolute assurance of obtaining the water in its original condition.

The action of automatically cutting off the flow of water from the bottle 4 is well understood, and operates by the water in the funnel closing the mouth of the bottle, thus preventing the flow of air into the bottle which prevents the flow of water therefrom, and it may aptly be termed a pneumatic automatic cut-off.

For the purpose of protecting the hollow diaphragm 2, or the coil 3 (whichever may be used) I use a sheet metal perforated disk 7, which as will be readily understood serves to protect the diaphragm or coil of pipe from injury when ice is being placed therein, and also serves to support the ice independent of the diaphragm or coil.

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

1. A water cooler comprising a body portion to receive the ice, a cover having an opening to receive the neck of a bottle, a water receiver within the body portion and in communication with said cover opening, a bottle having its neck passing through said cover opening, said water receiver having a water outlet passing through said body portion.

2. A water cooler comprising a body portion, a cover having an opening to receive the neck of a bottle, an upwardly extending flange on said cover surrounding the opening therein and forming a support for the bottle, a water receiver within the body portion and in communication with said cover opening, a bottle seated on said support with its neck extending through said cover opening, the water receiver having an outlet passing through said body portion.

3. A water cooler comprising a main or body portion adapted to receive the ice, a bottle supporting member in the upper end of the body portion, a pipe passing through the main or body portion of the cooler and out through the lower side thereof and provided with a controlling member, a receptacle located below the bottle supporting member and adapted to receive the mouth of bottle, and a pipe extending from the receptacle to the upper end of the first named pipe.

4. A water cooler comprising a main or

body portion adapted to receive the ice, a cover for said body portion and adapted to receive a bottle, a pipe extending downwardly through the body portion to the lower end thereof and out through the side thereof and provided with a controlling member, the lower portion of the pipe formed into a horizontal enlarged space, a receptacle adapted to receive the neck of the bottle, and a pipe communicating with said receptacle and the upper end of the first mentioned pipe.

5. An improved water cooler, comprising a main or body portion, a cover therefor, a pipe passing through said body portion and extending out through the side thereof and provided with a controlling means, a removable member within the upper end of said body portion and having an opening therein, a receptacle below said opening, a bottle having the neck passing through said opening into said receptacle, an upwardly extending flange surrounding the opening and engaging the neck of the bottle, a second upwardly extending flange surrounding the first flange and surrounding the bottle, and a removable connection between said receptacle and the aforementioned pipe.

6. An improved water cooler comprising a main or body portion adapted to receive the ice, a pipe passing through the main or body portion and out through the side thereof and provided with a controlling member, a bottle supporting member removable from the upper end of the body portion and having an opening therein, a receptacle below the opening and having a pipe adapted to be removably connected with the aforementioned pipe, the receptacle adapted to receive the neck of a bottle, and an upwardly extending flange surrounding said opening and adapted to engage the neck of the bottle.

7. An improved cooler, comprising a main or body portion adapted to receive the ice, a removable disk-shaped member carried by the upper end of the body portion and having an opening therein adapted to receive the neck of a bottle, a receptacle below said opening, an upwardly extending flange surrounding said opening and engaging the neck of said bottle, an upwardly extending flange surrounding the first flange, and a pipe in connection with said receptacle and extending through the body portion.

8. An improved cooler comprising a main or body portion adapted to receive the ice, a pipe passing through the body portion and formed into an enlarged horizontal space and passing out through the side of the body portion, a flat disk resting within the upper portion of said body portion, means for supporting the bottle carried thereby, a receptacle at the underside of said disk, a pipe carried by said receptacle and adapted to be detachably connected to the aforementioned pipe, a pro-

protecting case adapted to receive the bottle, and said disk having an opening therein.

9. In a device of the class described, the combination with an inclosure provided with a bottle-supporting seat surrounding a top opening therein; of an open well contained within said inclosure; an outlet leading from said well exteriorly of said inclosure; means for controlling said outlet; and a bottle inverted upon said seat to close the top opening in said inclosure and having its mouth immersed in the contents of said well.

10. In a device of the class described, the combination with an inclosure having a refrigerating chamber; of a well located within said inclosure opening at its upper end into said refrigerating chamber; a gravity-flow outlet leading from said well; means for controlling said outlet; and means for supporting a bottle in inverted position with its mouth immersed in the contents of said well whereby the bottle is supplied with air from the refrigerating chamber.

11. In a device of the class described, the combination with an inclosure having a refrigerating chamber and in its upper end a bottle-supporting seat surrounding an opening therein; of a well located within said inclosure opening at its upper end into said refrigerating chamber; a gravity flow outlet leading from said well exteriorly of said chamber; means for controlling said outlet; and a bottle inverted upon said seat to close the top-opening in said inclosure and having its mouth immersed in the contents of said well, substantially as described.

12. A device for delivering and cooling bottled water, the same consisting in the combination of a cooling-chamber adapted to contain a cooling agent and provided with an opening in its upper part through which the neck of the inverted bottle passes; a water receptacle upon which said cooling agent acts to cool the contents thereof and provided with an opening into which the head or neck of the inverted bottle projects, a bottle placed with its open mouth extending through said openings in the cooling chamber and said receptacle and projecting downwardly into said water-receptacle in position to be sealed by the water in said receptacle when said water rises therein to substantially the level of the mouth of the bottle to stop the flow therefrom and to be unsealed by said water when its level is lowered in said receptacle and thereby replenish the latter, and means for drawing water for use from said

water-receptacle, whereby successive portions of the water in the bottle are automatically delivered to said water-receptacle and cooled therein, such delivery taking place at times determined by the drawing of water from said water-receptacle for use, substantially as and for the purpose set forth.

13. A device for delivering and cooling bottled water, the same consisting in the combination of a cooling-chamber adapted to contain a cooling-agent, a water-receptacle upon which said cooling agent acts to cool the contents thereof and provided with an opening in its upper part, a bottle outside of the said cooling chamber and containing the source of water supply and placed with its open mouth projecting downwardly into said opening in said water-receptacle in position to be sealed by the water in said receptacle when said water rises therein to substantially the level of the mouth of the bottle to stop the flow therefrom and to be unsealed by said water when its level is lowered in said receptacle and thereby replenish the latter, and means for drawing water for use from said water-receptacle, whereby successive portions of the water in the bottle are automatically delivered to said water-receptacle and cooled therein, such delivery taking place at times determined by the drawing of water from said water receptacle for use, substantially as and for the purpose set forth.

14. In a device of the class described, a cooling chamber provided with an opening in its upper part, a liquid receptacle provided with an opening, a container placed with its open mouth extending through said openings in the cooling chamber and said receptacle and adapted to be sealed by liquid in said receptacle, and means for drawing off liquid from said receptacle.

15. In a device of the class described, a cooling chamber, a liquid receptacle exposed to the action of said cooling chamber and provided with an opening in its upper part, a container placed with its open mouth projecting downwardly into said opening in the liquid receptacle and adapted to be sealed by liquid therein, and means for drawing off liquid from said receptacle.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ISAIAH NEWELL.

Witnesses:

FRANK T. KELLY,
HARRIET MIRRICK.