

No. 752,810.

PATENTED FEB. 23, 1904.

H. G. SWEENEY.
WATER COOLER.

APPLICATION FILED FEB. 20, 1903.

NO MODEL.

Fig. 1

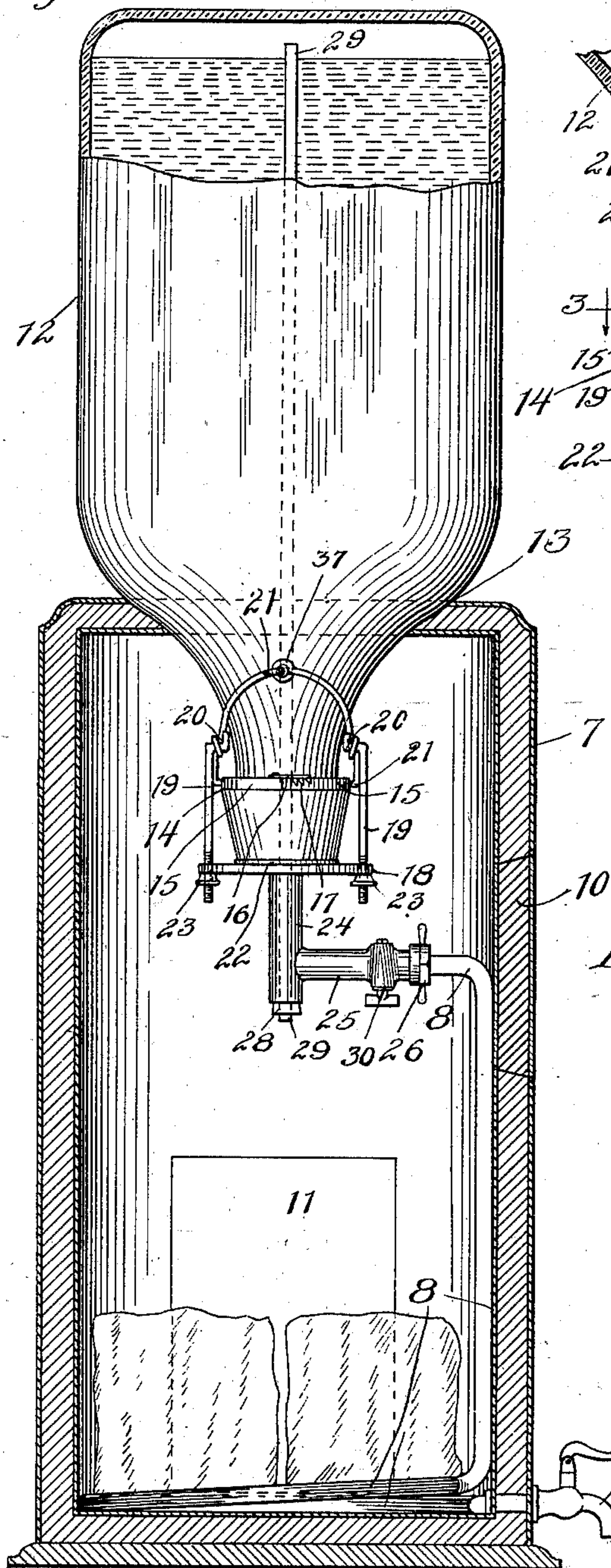


Fig. 2

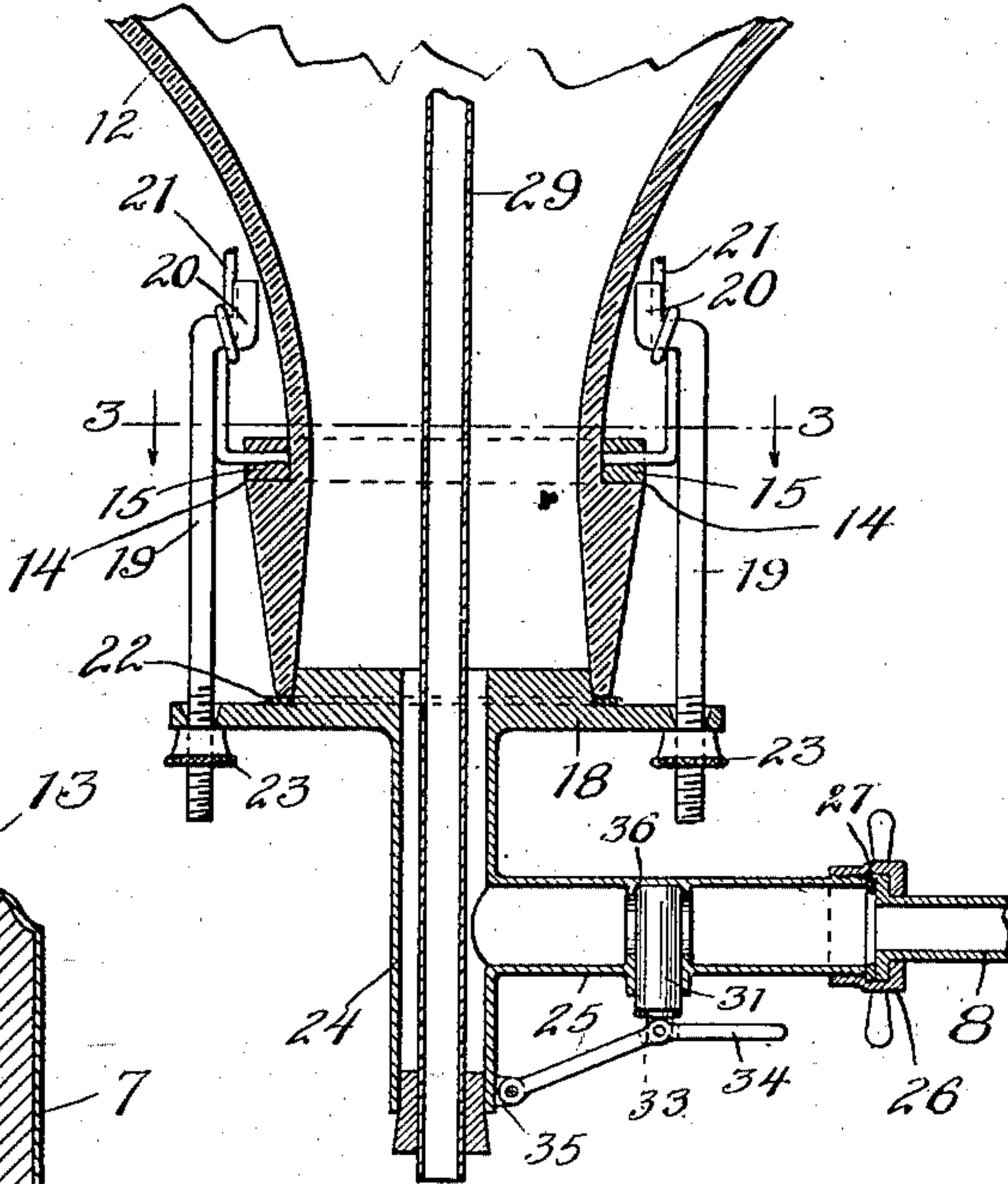


Fig. 3

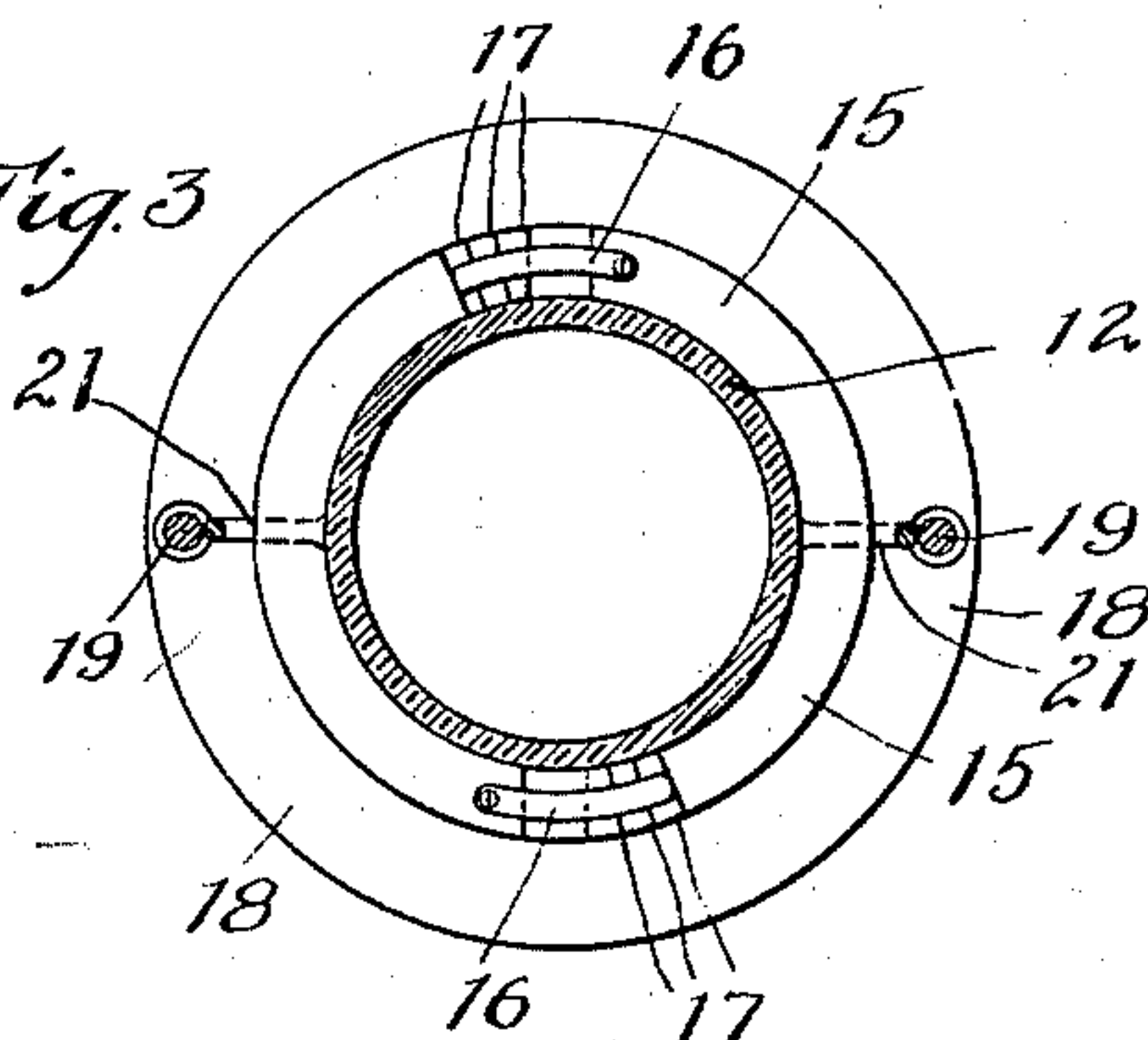
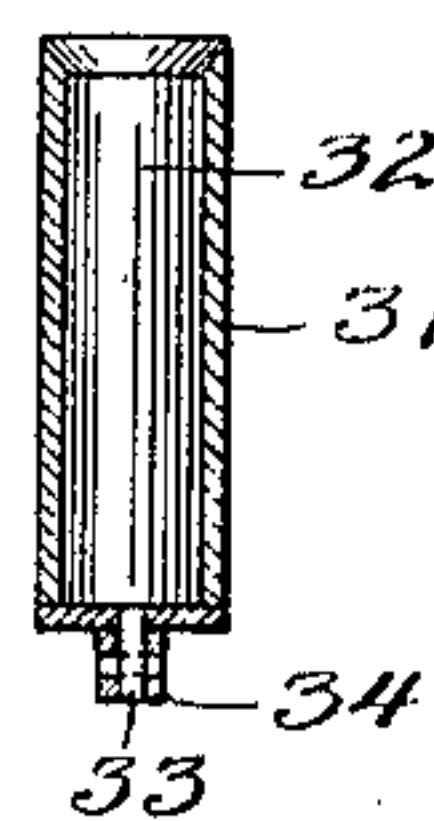


Fig. 4



Fig. 5



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UNITED STATES PATENT OFFICE.

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WATER-COOLER.

SPECIFICATION forming part of Letters Patent No. 752,810, dated February 23, 1904.

Application filed February 20, 1903. Serial No. 144,191. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. SWEENEY, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Water-Coolers, of which the following is a specification.

This invention is an improvement upon that class of water-coolers in which the water is cooled for drinking purposes and is supplied to the cooler in large bottles, from which it is siphoned as it is used.

My invention has for its main object the dispensing with the siphon feature, as the siphons are not reliable in their operation, and I do this by inverting the bottle and connecting it to the pipe of the cooler by a connection having a valve adapted to be closed while the parts are being joined and opened after the junction is made.

The invention also embraces features of novelty whereby this connection is adapted to be attached to bottles having variously-sized mouths; and it consists in the novel features hereinafter set forth.

In the accompanying drawings, Figure 1 is a vertical section of a cooler containing my invention. Fig. 2 is an enlarged vertical section of the connections by which the bottle is joined to the cooler-pipe. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a side view of one of the sections of the adjustable collar for attaching the water connection to the bottle. Fig. 5 is a detail view of the preferred form of valve employed in the water connection.

In said drawings, 7 represents a suitable form of cooler or ice-box containing a cooling-pipe 8, a portion of which is coiled at the bottom of the cooler and discharges the water by the faucet 9. The cooler is provided with doors 10 and 11 in its side to give access for the joining of the water connection to the pipe 8 and for the insertion of the ice. The cooler also has an opening 13 in its top adapted to receive and fit the neck of the water-supply bottle 12, which bottle is inverted, so that its neck may enter and be supported in said opening.

Before the bottle is thus positioned I apply to it my improved water connection, which will now be described.

I first place around the neck of the bottle and under the usual annular shoulder 14 thereof an adjustable collar made in two halves or sections 15 15 and joined together at their proximate ends by spring-hooks 16, adapted to engage the teeth 17, formed on the ends of the sections, one hook and one set of the teeth on each section being the preferred construction. The teeth 17 are employed in sufficient number to permit the collar to be adjusted to different bottles, notwithstanding their variations in size. I next close the mouth of the bottle, except so much thereof as is needed for feeding the water, by means of a plate 18, connected to the collar 15 by means very similar to those employed for clamping the stoppers to the mouths of beer-bottles, and which in this instance may consist of the vertical rods 19, having offsets 20, and the wire loop 20 having its extreme ends entered in the collar 15 and also having its end portions wrapped around said offsets 20, so that in one position, the one shown at Fig. 1, the extreme ends being held by the collar 15, the loop will draw the plate 18 firmly against the edge of the bottle and compress the washer 22 inserted between the plate and the bottle and thus form a water-tight joint between the two, and in its other or reversed position the loop releases the clamping action. The loop is operated precisely as in the beer-bottle stopper and needs no further description. The rods 19 have nuts 23 threaded upon them outside the plate 18, whereby any vertical differences in the bottles may be accommodated.

From the center of plate 18 extends a vertical pipe 24, and a lateral pipe 25 projects from pipe 24. This lateral pipe is adapted to be connected to the end of the cooler-pipe by some form of attachment which permits ready connecting and disconnecting. I prefer that the attaching means should consist of the swivel-nut 26, fast on the cooler-pipe, and to thread the end of pipe 25 so the nut may engage it. A rubber washer 27 may be placed

between the ends of the two pipes to insure a tight joint.

A plug 28 is inserted in the end of the pipe 24, and through this plug a vent-pipe 29 extends up into the inverted bottle and above the water therein, as plainly shown.

In order that there may be no loss of water while attaching pipe 25 to the cooler-pipe, I provide a valve in said pipe 25, which may be of any suitable construction, such as the ordinary plug-valve 30 (shown at Fig. 1) or the rubber stopper 31, (shown at Figs. 2 and 5,) the latter being preferred. This stopper 31 may be provided with a hard core 32, and said core may be provided with a projection 33, to which a lever 34 may be pivoted. This lever is joined to the pipe 24 at 35 and serves as a means of withdrawing the stopper and of preventing its loss. The pipe 25 is pivoted with a seat 36, adapted to fit the stopper and enable it to cut off any escape of water.

The water connection above described is secured to the bottle before the bottle is inverted, and as soon as the attachment is made and the valve or stopper are closed the bottle may be inverted and placed in position on the cooler. This being done, the pipe 25 is attached to the cooler-pipe by turning the nut 26 in engagement with the thread of pipe 25 until the joint is rendered tight. The valve or stopper is then opened, so that the water from the bottle can flow into the cooler-pipe. By thus inverting the water-bottle and connecting it to the cooler-pipe I insure an unfailing supply of water to the latter so long as any water remains in the bottle. When the bottle is emptied, it is removed and replaced by a full one, which is readily done. The water connection is adapted to fit any ordinary bottle and can be applied or detached in a moment's time.

In putting on and taking off the water connection the sections 15 require to be separated, and to allow them freedom in this respect I form a hinge-joint at 37 in the loop 21 and also make the openings in plate 18, through which the rods 19 pass, with a taper which will permit the upper ends of the rods to be moved freely in any direction. The rods are made sufficiently strong so they will not yield under the strains put upon them in use, and

the yielding necessary when the loop 21 is reversed is obtained in the wire of the loop itself.

I claim—

1. The combination with a cooler having an opening at its top adapted to receive the neck of the bottle, and a stationary cooling pipe or coil located within the cooler, of an inverted water-bottle and a water connection made adjustable at one end to fit the outside of the bottle and adapted to be inserted in the cooler with the bottle, and to be detachably joined to the cooling-pipe therein.

2. The combination with a cooler having an opening at its top adapted to receive the neck of the bottle, and a stationary cooling pipe or coil located within the cooler, of an inverted water-bottle and a water connection made adjustable at one end to fit the outside of the bottle and be held thereon and adapted to be inserted in the cooler with the bottle, and to be detachably joined to the cooling-pipe therein, said connection also embodying a valve to prevent the loss of water prior to the attachment to the cooling-pipe and a vent-pipe 29.

3. The combination with a cooler having an opening at its top adapted to receive the neck of the water-bottle and a cooling pipe or coil, of an inverted water-bottle and a water connection located wholly within the cooler and detachably connected both to the bottle and the cooling-pipe, said connection being adjustable to bottles of varying sizes.

4. The combination with a water-cooler, of an inverted water-bottle and a water connection for connecting the bottle to the cooler-pipe of the cooler, said connection having an adjustable collar fitting the neck of the bottle and a device adjustably attached to said collar for closing the bottle.

5. The combination with a water-cooler, of an inverted water-bottle and a water connection for connecting the bottle to the cooler-pipe of the cooler, said connection embodying an adjustable collar grasping the neck of the bottle, and a plate for closing the bottle attached to said collar by adjustable rods.

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Witnesses:

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