

No. 808,781.

PATENTED JAN. 2, 1906.

G. E. SAVAGE.
WATER COOLER.

APPLICATION FILED MAY 2, 1904.

Fig. 1.

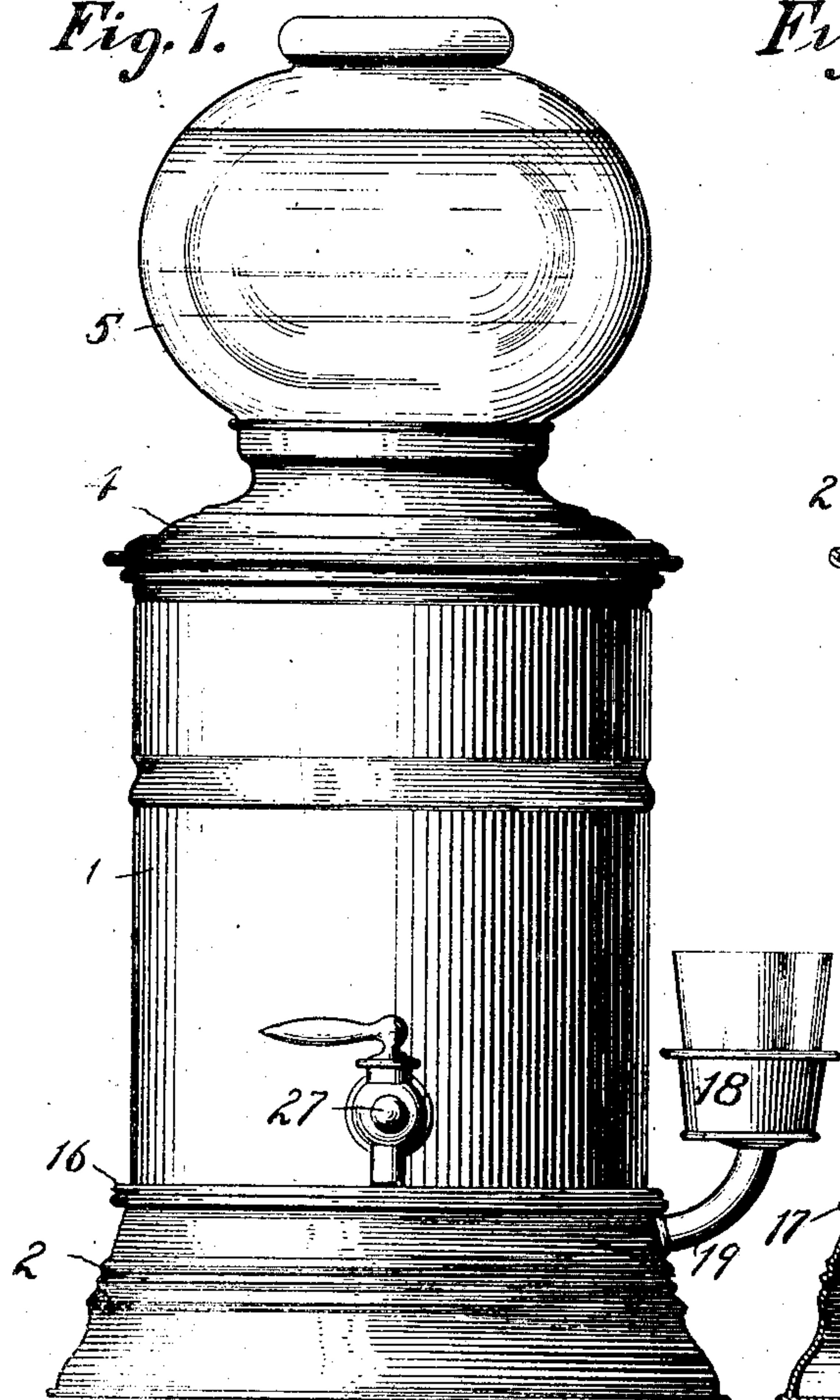


Fig. 2.

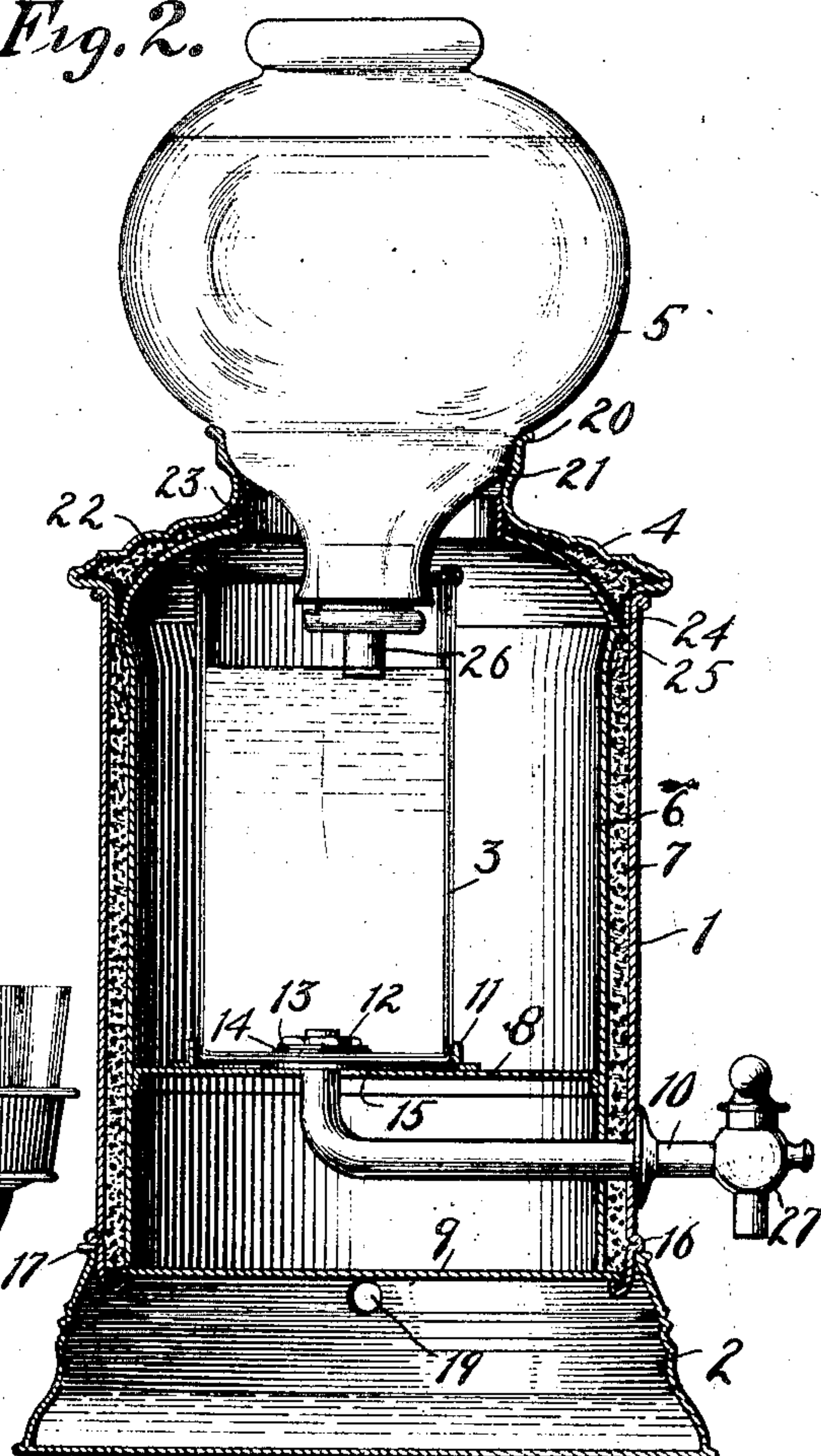
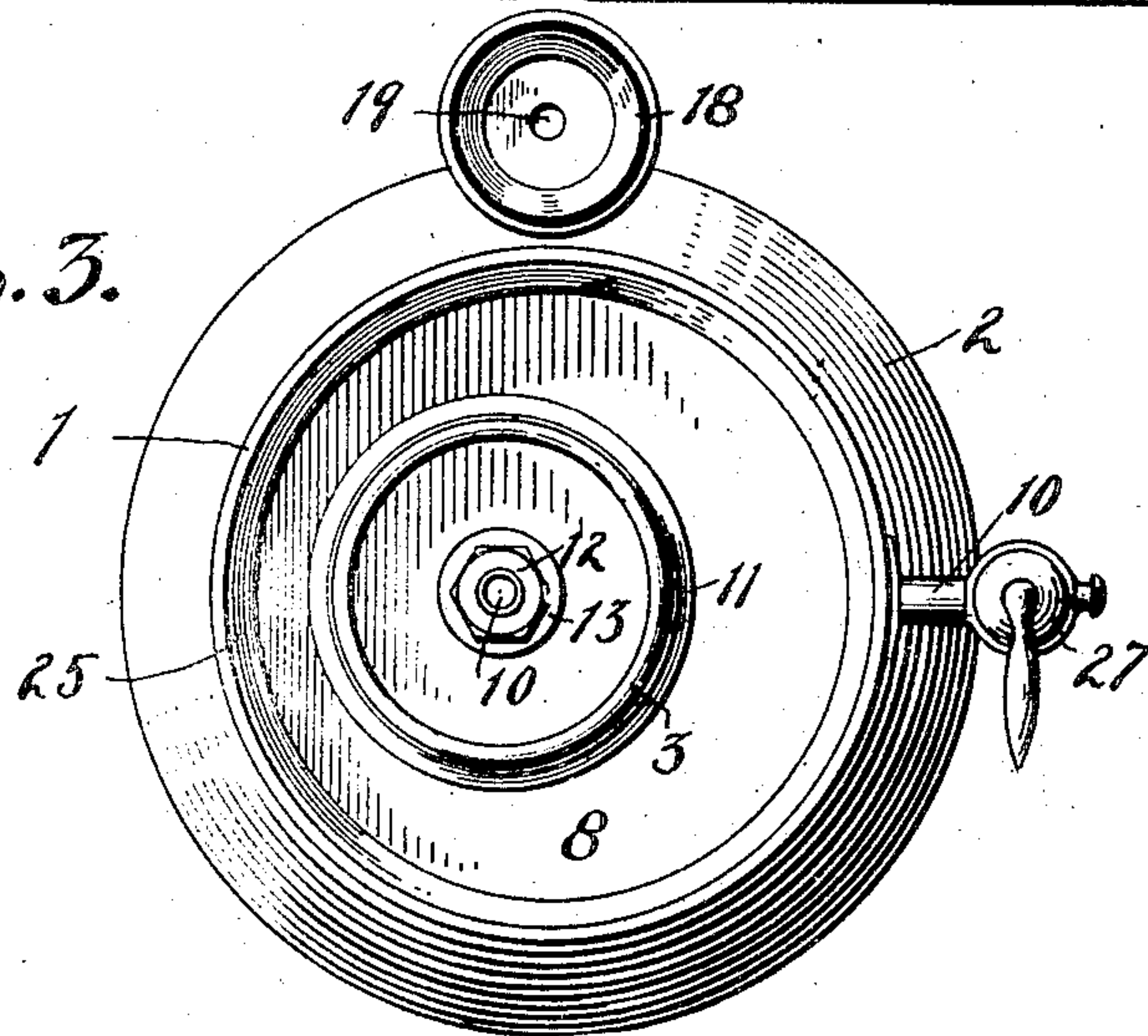


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE E. SAVAGE, OF MERIDEN, CONNECTICUT.

WATER-COOLER.

No. 808,781.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed May 2, 1904. Serial No. 205,860.

To all whom it may concern:

Be it known that I, GEORGE E. SAVAGE, a citizen of the United States, residing at Meriden, New Haven county, Connecticut, have invented certain new and useful Improvements in Water-Coolers, of which the following is a full, clear, and exact description.

My invention relates to improvements in refrigeration, and particularly to a water-cooler for office and family use.

The object of my invention is to provide a simple, economical, reliable, and sanitary construction for cooling drinking-water by means of ice.

The invention consists in a construction substantially as shown in the accompanying single sheet of drawings. A body part is provided which forms an ice-chamber surrounding a water-reservoir. A single cover for both the water-reservoir and the ice-chamber is supported by the body portion. A reserve supply of water is contained within an inverted bottle supported by the cover. The neck of the bottle extends into the water-reservoir and is sealed by the water therein. The water-reservoir is removable and constructed of enameled metal ware, while the walls of the body and the cover are protected by thermal insulation to prevent absorption of heat and sweating. The bottom of the body is double and provides a passage for the outlet-pipe. I have also provided a base portion which serves to receive the waste water from a glass receptacle at one side.

Figure 1 is a front elevation of a water-cooler embodying the improvements of my invention. Fig. 2 is a vertical section at right angles to the position of Fig. 1, and showing the water-bottle and outlet-pipe in side elevation. Fig. 3 is a plan view of the body of the cooler and reservoir with the cover and bottle removed.

1 is the main body portion or casing.

2 is the base and waste-water receptacle.

3 is the water-reservoir.

4 is the dome-shaped supporting-cover.

5 is an inverted water-bottle.

The body portion has the inner wall 6 and the packing 7 of suitable material, such as cork sawdust.

8 is the bottom of the ice-chamber, and 9 a second bottom. They form between them a space through which the outlet-pipe 10 passes.

The water-reservoir 3 is supported within the ice-chamber by the inner bottom 8. The annular flange 11 is secured to the inner bottom

and affords a guide and centering means for the water-reservoir 3. The inner end of the outlet-pipe 10 is upturned and provided with a screw-threaded portion for the clamping-nut 12.

13 is a metal washer, and 14 and 15 are rubber washers which afford yielding supports for the bottom of the water-reservoir 3.

The reservoir may be readily removed by simply loosening the nut 12. This facilitates greatly the cleaning of the reservoir, which is so essential to a sanitary condition. The inlet to the pipe 10 being raised above the bottom of the reservoir, a space is formed around it in which any sediment may collect and not be drawn off until desired. Fig. 3 shows how this reservoir 3 is mounted eccentrically of the ice-chamber, so as to provide a space on the front for larger pieces of ice than would be possible if the reservoir were mounted concentrically.

16 is a flange which is spun out at the lower end of the body portion to form a shoulder, which rests on the top of the base portion 2.

17 is a pin carried by the body for fitting into a notch in the base and holding the parts in their proper relative positions.

18 is a glass or drinking-cup receptacle, which is connected to the base by a tube 19. Waste water is thrown into the receptacle 18 and runs into the base, where it is retained. The body portion may be removed by simply lifting it from the base.

The mouth of the cover is provided with two shoulders 20 and 21 to support correspondingly-formed portions of the water-bottle 4, so as to give a steady yet somewhat yielding support for the same. The cover is hollow and packed with insulating material. The inner wall 22 of the cover is arched, as shown particularly in Fig. 2, and connected to the throat by means of the collar 23, which acts as a keystone to withstand compression. This arch affords a very strong construction for supporting the considerable weight of the filled water-bottle. The base 24 of the cover fits snugly within the upper edge of the body portion and rests upon the shoulder 25 formed by the upper end of the inner wall 7, which takes the thrust.

The mouth of the bottle is preferably reduced in area, so as to prevent a large volume of water flowing out suddenly. I have therefore provided the outlet-tube 26, which is secured to some suitable cork for fitting into the neck of the bottle.

In operation the space between the water-reservoir 3 and the inner wall 7 of the body portion is filled with cracked or broken ice. Water is then preferably poured into the reservoir 3 until it nearly fills the same. The cover 4 is then placed in position and the water-bottle 5 inverted quickly, so that its mouth or outlet 26 extends into the reservoir. As soon as sufficient water flows from the bottle to fill the reservoir to a point above the lower end of the outlet the water will cease to flow. When water is drawn from the faucet, the level of water in the reservoir is lowered. This permits air to enter the outlet 26, and hence permits water to flow into the reservoir from the bottle, as before. There is sufficient leakage of air around the cover to continue the operation properly.

The use of this construction insures cool drinking-water; but since the reservoir is supplied with fresh but warmer water from the bottle from time to time the temperature does not fall as low as the temperature of the ice, which would be undesirable.

What I claim is—

1. In a water-cooler, the combination of a body portion having thermally-insulated side walls and forming an ice-chamber, a double bottom, a glazed or enameled reservoir, an outlet-pipe from the body portion having an upwardly-turned inner end extending upward

through the inner bottom and the bottom of said reservoir, means for centering said reservoir and a set-nut for coacting with the upwardly-turned end of said outlet-pipe for securing said reservoir in place, a cover for said body portion having an opening and an inverted bottle supported with its outlet within said reservoir.

2. A water-cooler comprising the combination of a body portion with insulated side walls having a shoulder near the top and an opening, a wide-mouthed water-reservoir mounted in said body, a single separate cover for said body portion and said reservoir having double metallic walls spaced apart with insulating material filled therein, said cover rising in the form of an arch from a shoulder of said body portion and having an annular flange or rim surrounding a central opening and an inverted water-bottle having a shoulder supported by said flange, the neck of said bottle protruding freely and unsupported within the mouth of said water-reservoir, the weight of said water-bottle being borne by said arched cover.

Signed at Meriden this 29th day of April, 1904.

GEORGE E. SAVAGE.

Witnesses:

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