G. E. CURTISS.

PERCOLATOR.

APPLICATION FILED DEC. 18, 1913.

1,108,712. Patented Aug. 25, 1914.

Fig. 1

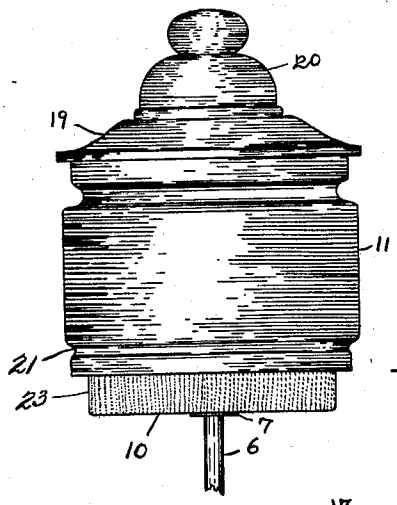


Fig. 2

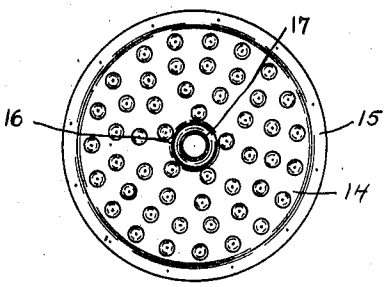


Fig. 3

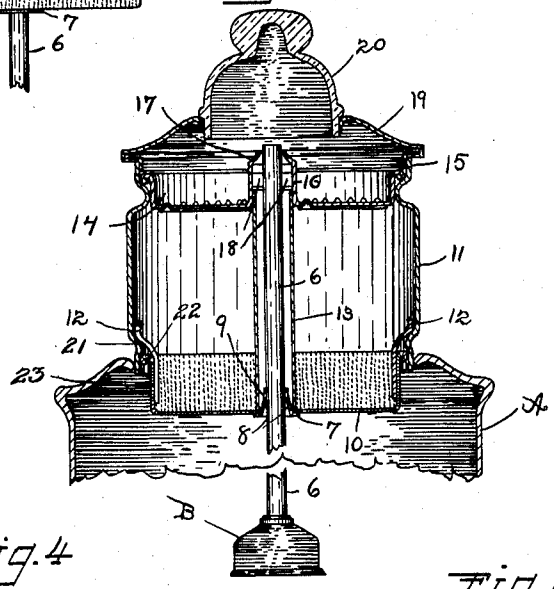


Fig. 4

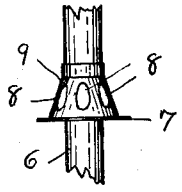
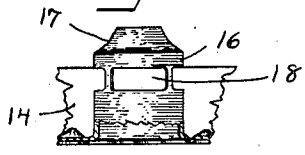


Fig. 5



Witnesses:—

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PERCOLATOR.

1,108,712. Specification of Letters Patent. Patented Aug. 25, 1914.

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To all whom it may concern:

Be it known that I, GEORGE E. CURTISS, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Percolators, of which the following is a specification.

My invention relates to improvements in percolators and the objects of my improvement are simplicity and economy in construction with efficiency in operation, especially with reference to provision for an overflow of the drip cup.

In the accompanying drawing: Figure 1 is a side elevation of the upper part of my percolator, less the liquid vessel, the lower end of the fountain tube being broken off. Fig. 2 is a plan view of the drip plate or liquid distributer. Fig. 3 is a broken out central vertical section of the upper part of my percolator, the fountain tube and its base being shown in side elevation. Fig. 4 is a side elevation of the middle portion of the fountain tube, showing the perforated centering and supporting cone, and Fig. 5 is a broken view of the overflow boss and part of the drip plate, partly in side elevation and partly in central longitudinal section.

A designates the vessel for holding the liquid that the coffee or other material is to be infused with.

B is the fountain base from which the liquid is forced upwardly through the fountain tube 6, the said vessel, base and tube being in general of any ordinary construction. At about the middle of the length of the fountain tube there is fixed a perforated centering and supporting cone having a flange 7 at its base and perforations 8 between the said flange and contracted neck 9, by means of which neck it is secured to the said tube, the said cone being hollow so that the perforations open into the space between the inside of the said cone and the outside of the said cone and the outside of the said tube.

The drip cup or receptacle for the material to be infused preferably comprises a finely perforated base 10, which serves as a strainer, and a glass body 11 through which the percolating action may be observed. The body is held to the base by means of springs or resilient clips 12 of any desired or ordinary construction. Rigidly fixed at the center of the drip cup base and projecting upwardly therefrom is an overflow tube 13 of somewhat larger diameter than the fountain tube 6. Within the mouth or top of the glass body 11 of the drip cup there is a drip plate or liquid distributer 14 of any approved construction, the same having a flanged rim 15 by means of which it is supported within the shouldered mouth of the glass body in any ordinary manner. Rigidly mounted or formed on the central portion of the drip plate 14, is an overflow boss 16, the lower end of which is of a size to receive and fit the upper end of the overflow tube 13, as shown in Fig. 3. The upper end of the said boss is preferably provided with a top 17 having a central opening of a size to receive and fit the upper end of the fountain tube 6. This boss as shown, projects upwardly to a point somewhat higher than the upper edge of the flanged rim 15 of the plate or distributer 14, and the sides of its body are provided with large overflow passages 18. This boss is preferably formed integral with the other parts of the liquid distributer. The drip cup is closed with any suitable cover 19 preferably with a glass center 20.

The fountain base B is designed to rest upon the central portion at the bottom of the body of the liquid vessel A. The position of the perforated centering and supporting cone on the fountain tube is such that with the parts in place, the whole weight of the drip cup, and whatever it carries, is supported by the said cone, the drip cup being received within the mouth of the vessel A but not resting thereon; all as shown in Fig. 3. As shown in the said figure, the side wall of the glass body 11 of the drip cup is provided with an inwardly directed annular flange 21, positioned below the outwardly flaring engaging ends of the springs 12, and resting on and supported by an outwardly directed flange 22 at the upper end of the cylindrical side wall 23 of the perforated base 10. The springs 12 have their lower ends secured to the said cylindrical side wall 23. Thus it will be noted that the glass body 11 and the base 10 are positively connected so that the same can be lifted as a unit by grasping the glass body 11 and they will be supported as a unit from the base 10 when the latter rests

on the flange 7. The said cone, at its base, adjacent the flange 7, is of a size to substantially fill the lower end of the overflow tube 13, thereby serving to center the fountain tube within the said overflow tube.

The general operation is the same as in ordinary percolators. The coffee, or other material to be infused, is placed in the drip cup, the drip plate or liquid distributer placed within the drip cup to confine the material therein and the cover placed over the distributer, all as shown in Fig. 3. The liquid forced up through the fountain tube against the inner side of the cover, falls down into the liquid distributer, passes through the holes therein, down through the coffee into the liquid vessel and so on repeatedly as long as may be desired. If the strainer becomes clogged, or in case an excess of liquid is forced up through the fountain tube and the drip cup is filled to overflowing, the liquid rises up above the bottom of the distributer 14, and in time passes inwardly through the overflow passages 18 into the interior of the overflow boss 16, down through the overflow tube to the supporting cone and then through the perforations 8 and down into the vessel A, whereby it is impossible to force up more liquid than will pass down through the drip cup and overflow tube. The liquid distributer will cut off the coffee or other material to be infused and prevent it from rising up above the bottom of the said distributer, hence the overflow passages cannot become stopped up by the said material as might be the case if there was no cut-off plate at the top of the drip cup. The construction is simple and inexpensive. The body of the drip cup extends within the mouth of the vessel A so that any leakage between the glass body and flange of the distributer 14 and also between the said glass body and the perforated base 10 will pass downwardly into the said vessel. By mounting the overflow tube on the bottom of the drip cup and the overflow boss on the liquid distributer, the drip cup may be conveniently filled with the material to be infused, which is confined therein by putting the distributer in place.

I claim as my invention:—

1. In a percolator having a liquid vessel and a fountain tube, a drip cup fitted to and received within the mouth of the said vessel and having an overflow tube extending upwardly from its base around the fountain tube, a liquid distributer fitted to the mouth of the said drip cup and having an overflow boss extending upwardly around the fountain tube and upper end of the said overflow tube, the said boss having overflow passages at a point above the bottom of the said liquid distributer and a centering cone positioned between the lower end of the said overflow tube and the fountain tube.

2. In a percolator, the combination of a liquid vessel, a drip cup fitted to the upper part of the said vessel, an overflow tube fixed on and extending upwardly from the bottom of the said drip cup, a liquid distributer fitted to and covering the upper part of the said drip cup, an overflow boss projecting upwardly from the bottom of the said distributer, and a fountain tube extended upwardly through the said overflow tube and boss, the top of the said boss having a central opening fitted to the upper end of the said fountain tube and a centering cone mounted on the said fountain tube and positioned adjacent the lower end of the said overflow tube.

3. In a percolator, a liquid vessel, a drip cup fitted to the upper part of the said vessel and having a central overflow tube, a liquid distributer fitted to the mouth of the said drip cup, a fountain tube and base and a perforated centering and supporting cone mounted on the middle portion of the said fountain tube for receiving the weight of the said drip cup and its contents.

GEORGE E. CURTISS.

Witnesses:
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H. L. SHERMAN.