

C. A. STELLE.
PERCOLATOR.
APPLICATION FILED AUG. 3, 1908.

938,906.
Fig. 1

Patented Nov. 2, 1909.

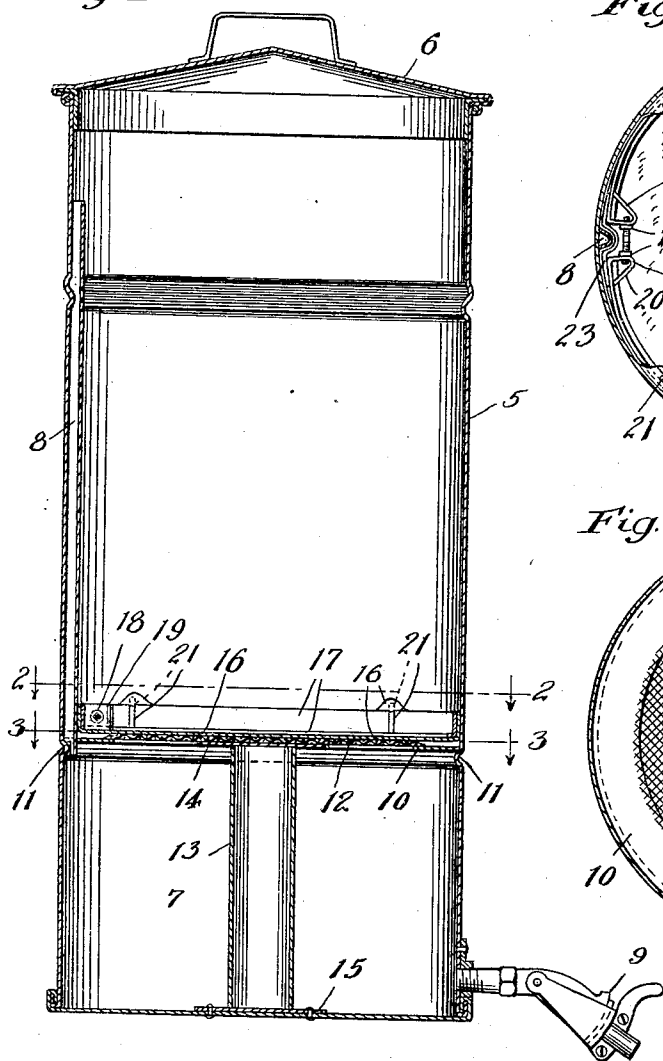


Fig. 2

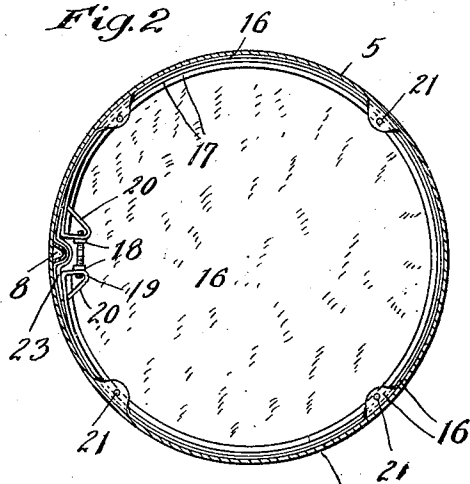


Fig. 3

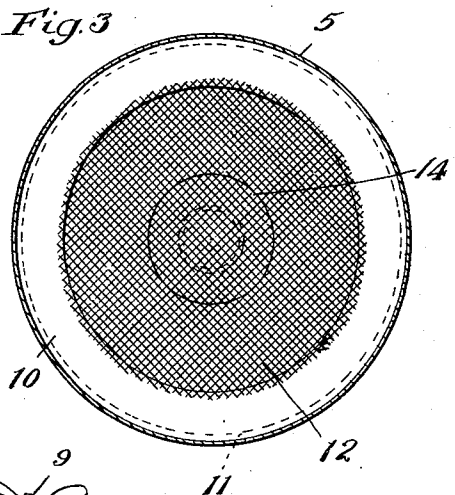
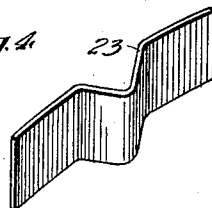


Fig. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES A. STELLE, OF CHICAGO, ILLINOIS.

PERCOLATOR.

938,906.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed August 3, 1908. Serial No. 446,728.

To all whom it may concern:

Be it known that I, CHARLES A. STELLE, 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 Percolators, of which the following is a specification.

This invention relates to what are now generally known among manufacturers and jobbers as one piece or one part percolators, that is to say percolators having only the single receptacle or containing vessel, as distinguished from the two part percolators which embody not only the main vessel of the one part percolator, but in addition thereto an inner vessel in which the sugar and water are placed at the commencement of the percolating operation and from which the syrup drops into a suitable chamber or part of the main vessel. A type of the one part percolators is shown in Patent No. 774,010, dated November 1, 1904, and granted to William B. Webber.

My invention is an improvement upon this class of percolators, and renders more convenient the securing in place therein and removal of the filtering devices therefrom.

The nature of the invention is fully explained below and illustrated in the accompanying drawing, in which latter—

Figure 1 is a vertical section of my improved percolator. Figs. 2 and 3 are sections on the lines 2—2 and 3—3 respectively of Fig. 1. Fig. 4 is a perspective of the spring employed to hold a portion of the edge of the filtering cloth.

In said drawing, 5 represents the main vessel forming the body of the percolator. It is provided with a cover 6, a syrup chamber 7, a vent tube 8 by which air is permitted to escape from the syrup chamber as the syrup accumulates therein, a discharge faucet 9 for drawing off the syrup from the syrup chamber, and filtering devices now to be described.

At 10 is an annulus of flat metal secured to the inner surface of the wall of the vessel 5, and just above the inwardly extending bead 11 formed in the wall. The central space within the annulus is covered by a screen 12 permanently secured all around its edge to the annulus, and serves with the annulus to support the sugar and water from which the syrup is obtained, and the screen serves to allow the formed syrup after it has passed through the filtering

cloth, to escape into the chamber 7. As the weight of the sugar and water upon the screen 12, may in some cases be excessive, I sometimes provide the screen with a central support, which may desirably consist of a standard 13 resting on the bottom of the syrup chamber and covered with a plate 14 arranged immediately under the screen as shown at Fig. 1. If made tubular as the standard is in the preferred construction, the syrup should be excluded from it, and this may be done by plates 14 and 15, the former at the top and the latter at the bottom, and the latter affords means for riveting to the bottom of the syrup chamber. The annulus is by preference permanently attached to the main vessel, and in any event the attachment should be such as to prevent any leakage of water between it and the wall to which it is attached.

Upon the annulus and screen I place the filtering cloth 16 through which the dissolving sugar and water must pass to reach the syrup chamber, and this cloth is maintained in an extended state upon the screen and annulus by an expansible hoop 17, the nature of which is fully shown in the drawing. It consists of a flat strip of thin metal, bent into circular form, with the edge of the metal uppermost, and provided at its ends with nuts 18, having one a right hand and the other a left hand thread, and in which nuts is fitted a bolt, one end of which is provided with a right hand thread and the other with a left hand thread. By turning this bolt the hoop is expanded or contracted as desired. The nuts are secured in the hoop by bending its end at right angles as at 19 and recessing such bends so that they receive the nuts and permit the latter to be soldered to them. The bent portions are braced by bending the continuations 20 down so that they form a junction with the body of the hoop. The cloth 16 is placed loosely upon the screen in an extended condition without wrinkles or folds, but has its edges turned up over the same and secured at intervals to pins 21 extending up from the hoop. By this expanding hoop, the turned up edge of the filtering cloth is forced outward against the wall of the percolator and confines the turned up edge of the filtering cloth firmly against the wall, so that no water or sugar can find its way outside the hoop. In the small open space between the ends of the hoop, the cloth may be forced outward in a

simple manner by a spring 23 inserted between it and the ends of the hoop as seen at Fig. 2, and in this manner the water is excluded from the outside of the hoop throughout its entire circumference.

In the use of the percolator, the filtering cloth is positioned and secured as described, and the hoop is expanded so as to tighten the contact between the cloth and the walls of the percolator, and the desired amount of sugar is then placed upon it. The water is then poured in on top of the sugar, and the percolation immediately commences and continues uninterrupted until the water has all been absorbed, the syrup formed passing down into the syrup chamber from which it is withdrawn as desired.

I claim:—

1. A percolator having a permanent screen and a filtering cloth above the screen and resting thereon, the cloth being secured to and held extended by an expansible hoop located within the cloth and secured to its edges.

2. A percolator having its filtering cloth attached to an expansible hoop located within the cloth and acting to force it outward closely against the inner walls of the percolator, and a screen located immediately below and supporting the cloth.

3. The combination in a percolator and with the filtering cloth and a screen located immediately below the cloth and supporting the same, of an expansible hoop located

within and secured to the edges of the cloth and thus adapted to hold the cloth tight against the inner walls of the percolator.

4. A percolator, the filtering devices whereof consist of a filtering cloth, an expansible device secured to the cloth and whereby the edge is distended and caused to make a tight joint with the inner wall of the percolator, and an openwork screen located immediately below the cloth and supporting the same.

5. A percolator, consisting of a vessel having a syrup chamber at the bottom, filtering devices consisting of a filtering cloth, an expanding ring secured to the cloth and serving to hold the cloth extended and cutting off the water and sugar from the syrup chamber, a screen located below the cloth and supporting the same and said holding means above the syrup chamber, and a tube venting said syrup chamber.

6. A percolator, consisting of a vessel having a syrup chamber at the bottom, filtering devices consisting of a filtering cloth, an expanding ring secured in and holding the cloth extended and cutting off the water and sugar from the syrup chamber, a screen immediately below the cloth and acting to support the same above the chamber, a tube venting said syrup chamber and a standard under the center of said supporting means.

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