Aug. 18, 1925. 1,550,336

R. O. BINGHAM

PERCOLATOR

Filed June 13, 1923

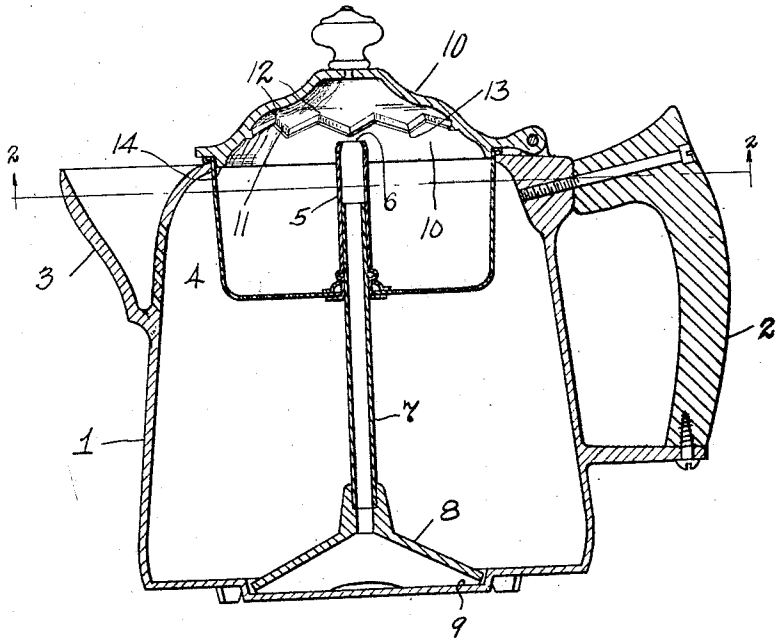


Fig. 1

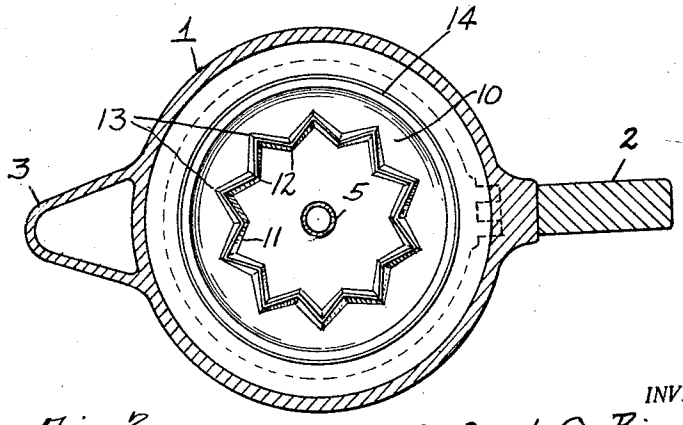


Fig. 2

INVENTOR.

Robert O. Bingham

BY

Fay, Oberlin & Fay

ATTORNEYS

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UNITED STATES PATENT OFFICE.

ROBERT O. BINGHAM, OF SIDNEY, OHIO, ASSIGNOR TO THE WAGNER MANUFACTURING COMPANY, OF SIDNEY, OHIO, A CORPORATION OF OHIO.

PERCOLATOR.

Application filed June 13, 1923. Serial No. 645,091.

To all whom it may concern:

Be it known that I, ROBERT O. BINGHAM, a citizen of the United States, and a resident of Sidney, county of Shelby, and State of Ohio, have invented a new and useful Improvement in Percolators, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The present improvements, relating, as indicated, to percolators, have regard more particularly to the provision of an improved cover or lid for a percolator. One object is to provide a solid cover, in place of the usual two-piece construction, consisting of a lid with a central or dome-portion of glass. Another object is to provide such cover or lid with means for collecting the condensation so as to control the dripping thereof and properly distribute such condensation drip over the bed of ground coffee or like material from which it is the purpose of the device to extract the essential principle by percolation.

To the accomplishment of the foregoing and related ends, the invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims, the annexed drawing and the following description setting forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—

Fig. 1 is a central vertical section of a percolator embodying my present improved construction of cover or lid; and Fig. 2 is a horizontal section of the same looking upwardly as indicated by the line 2—2, Fig. 1.

The general construction of the percolator shown in the aforesaid figures of the drawing is substantially the same as that illustrated and described in my Patent No. 1,271,011, dated July 2, 1918, but it will be understood that the present improvements may be applied with equal satisfaction to any device of the same general type. Such illustrated percolator comprises a vessel or body 1 which may be of any desired form and is provided with a handle 2 and a pouring spout 3. Into the top of the body there is set a receiving chamber or cup 4 for the ground coffee or other material to be percolated, such cup having a foraminous bottom as usual. Centrally mounted in such cup is a tube 5 provided with one or more apertures 6 in its upper end and into the lower end of this tube, which is open for that purpose, extends the upper end of a centrally disposed circulation tube 7 that is carried by a hollow cone-shaped member 8 loosely fitted in a central depression 9 in the bottom of the body 1.

The lid or cover 10 of the percolator body is hingedly attached to the upper end of the latter, preferably at a point adjacent the handle 2. Such lid is distinguished from the covers ordinarily used on percolators by being of one-piece solid construction as shown, being preferably formed of the same metal, e. g., aluminum, as the body.

In addition such cover is characterized by having its interior concave face specially conformed. As best shown in Fig. 2, such face is provided with a downwardly directed rib 11, which is of general circular form, i. e., extends entirely about the cover. However, such rib is corrugated so as to present a series of inwardly and outwardly directed angles 12 and 13, the portions of the ribs that enter into such outwardly directed angles being preferably of greater depth than the portions entering into such inwardly directed angles. It will further be noted that said rib 11 is concentric with the inner edge of the cover and thus with the chamber or cup 4, such edge being formed with a depending flange 14 that tightly interfits with the upper edge of the cup. Finally, said rib is located at such a distance from such lower edge or periphery of the cover as to lie approximately midway between the outer wall of the chamber or cup 4 and the tube 5 that rises centrally therein.

As a result of the one-piece construction of the cover or lid, whereby the employment of a separate glass dome is eliminated, I do away with any joint in the lid with attendant liability to leak. The cleaning of the lid is also facilitated and such lid being all of metal, the likelihood of breakage, which exists where a portion is of glass, does not exist. At the same time the rib 10 on the under face of the lid by reason of its peculiar form prevents the liquid discharged upwardly through the opening 6 in the tube

from running down the cover to the flange 14 and then dripping down around the sides of the cup or chamber 4. Instead such liquid is caught by the inclined portions of the rib and caused to collect at the respective outwardly directed angles or points 13 where drops are formed at a more or less uniform rate all around the circumferential extent of the rib. As these drops collect and become sufficiently heavy, they drip off onto the material resting on the bottom of the chamber 4, and in this way the entire body of such material is more uniformly permeated with the liquid and proper percolation more quickly secured.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In a percolator, the combination of a suitable vessel, a chamber for the reception of the material to be treated located in the upper portion of said vessel, said chamber having a foraminous bottom, a tube rising centrally within said chamber and having an opening for the discharge of liquid upwardly therefrom, a solid one-piece cover for said vessel, and means on the under side of said cover for distributing drops of liquid over the material in said chamber.

2. In a percolator, the combination of a suitable vessel, a chamber for the reception of the material to be treated located in the upper portion of said vessel, said chamber having a foraminous bottom, a tube rising centrally within said chamber and having an opening for the discharge of liquid upwardly therefrom, and a solid one-piece cover for said vessel, said cover having a concave under surface formed with a series of circumferentially spaced individual-drop forming projections, and such projections being located over points lying approximately midway between the outer wall of said chamber and said central tube.

3. In a percolator, the combination of a suitable vessel, a chamber for the reception of the material to be treated located in the upper portion of said vessel, said chamber having a foraminous bottom, a tube rising centrally within said chamber and having an opening for the discharge of liquid upwardly therefrom, and a solid one-piece cover for said vessel, said cover having a concave under surface formed with a series of circumferentially spaced individual-drop forming rib-portions inclined relatively to radial lines passing therethrough and such rib-portions being located over points lying approximately midway between the outer wall of said chamber and said central tube.

4. In a percolator, the combination of a suitable vessel, a chamber for the reception of the material to be treated located in the upper portion of said vessel, said chamber having a foraminous bottom, a tube rising centrally within said chamber and having an opening for the discharge of liquid upwardly therefrom, and a solid one-piece cover for said vessel, said cover having a concave under surface formed with a downwardly directed rib of general circular form lying approximately midway between the outer wall of said chamber and said central tube.

Signed by me, this 9th day of June, 1923.

ROBERT O. BINGHAM.