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1,492,777

D. CLARKE

KETTLE COVER

Filed Jan. 10 , 1924

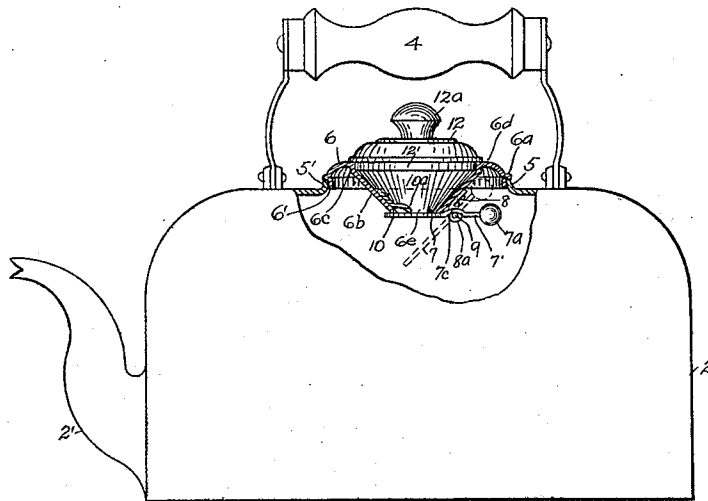


FIG. 1.

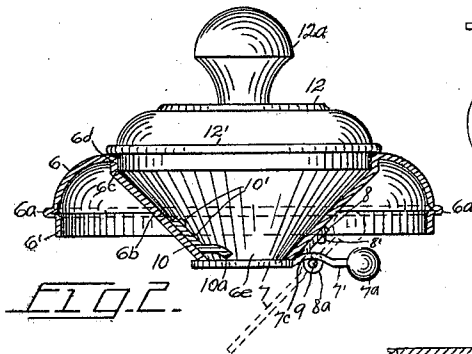


FIG. 2.

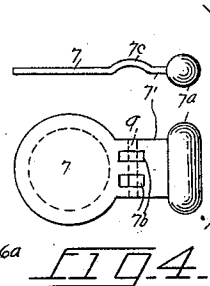


FIG. 4.

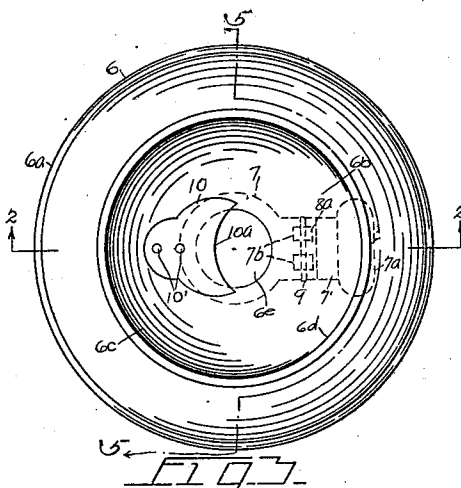


FIG. 3.

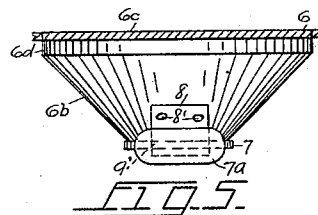


FIG. 5.

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UNITED STATES PATENT OFFICE.

DOUGLAS CLARKE, OF SYRACUSE, NEW YORK.

KETTLE COVER.

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To all whom it may concern:

Be it known that I, DOUGLAS CLARKE, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Kettle Covers, of which the following is a specification.

This invention relates to improvements in kettle covers, designed particularly for use in connection with tea-kettles and the like, and has for its object to provide novel and simple means for preventing the operator of the kettle from being scalded or burned by escaping steam during the refilling of the kettle. A further object is to provide a main tight-fitting cover, having a depressed conical water-receiving opening in its top, and having a valve-controlled opening in its bottom through which the water enters the kettle, and wherein the valve is normally held in closed position for sealing the latter opening by a counter-weight, the valve being arranged to be opened automatically by the weight of the water during the refilling of the kettle. A further object is to provide a baffle or guard, which is disposed adjacent the bottom opening of the main cover, for preventing the escape of steam from the kettle particularly during the initial opening movements of the valve. And a further object is to provide an auxiliary cover, which is supported in the flaring opening at the top of the main cover, for excluding dust and dirt from the conical filling opening.

I attain these objects by the means set forth in the detailed description which follows, and as illustrated by the accompanying drawing, in which—

Figure 1 is a broken side elevation of a tea-kettle, showing the application of my improvement thereto. Fig. 2 is an enlarged central vertical section, taken on line 2—2 of Fig. 3. Fig. 3 is a top-plan view of the main cover. Fig. 4 is respectively an edge and a top-plan view of the counter-weighted valve. And Fig. 5 is a projection of the section on line 5—5 of Fig. 3.

In the drawing, 2 represents an ordinary tea-kettle, having a pouring-spout 2', and a handle 4. 5 is the usual top or filling opening of the kettle, which is preferably skirted by an upturned flange 5', for telescopically receiving the depending flange 6' of the normally stationary cover 6. The

flange 6' is surrounded by a bead 6^a, which rests upon the flange 5'. Above the bead 6^a the cover is domed and the latter portion is provided with a concentric hollow truncated conical portion 6^b, whose broad flaring top 6^c is formed with a vertical annular seat 6^d; while its contracted bottom is open, as at 6^e, for the passage of water into the kettle, without requiring the removal of the cover 6. In order to prevent the escape of steam from the kettle during the boiling of the water, as well as during the refilling operations, the smaller or bottom end of the cone 6^b is closed by a flat contact valve 7. This valve is pivotally supported by a bracket 8, which is secured to the outer sloping wall of the cone by rivets 8'. The lower end of the bracket projects below the plane of the valve 7, and is formed with hinge-loops 8^a, through which a pintle 9 is inserted. The valve 7 comprises a disc, which is preferably slightly larger than the small end of the cone 6^b, and from one edge of the disc projects an arm 7', to whose free end is secured a counter-weight 7^a. Between the disc and the weight, the arm 7' is provided with openings 7^b, through which the loops 8^a project, and the arm adjacent said openings is curved upwardly, as at 7^c, and pivotally rides upon the pintle 9. The dotted lines in Figs. 1 and 2 show the extent to which the valve 7 may be opened by the weight of the water when the latter is poured into the cone or hopper 6^b. The valve 7 is normally held in the closed position by the counter-weight 7^a, as shown by the full lines in Figs. 1 and 2. When the valve 7 is properly constructed and fitted to the cover 6, it ordinarily effects a perfect sealing of the bottom opening 6^e, and the nature and use of the device is such that the valve must open readily and quickly by the weight of a relatively small body of water such as the cone may contain. Owing to the size and shape of the truncated body 6^b, the water must be poured carefully and slowly, in order to avoid splashing and wasting, and it frequently happens that the valve 7 is forced away from its seat while the funnel 6^b is only partially filled. This results in more or less of the steam that is confined in the kettle escaping at the (left) side of the bottom outlet 6^e, which opens first and widest, and scalding the operator's hands. To overcome this defect, I provide a novel

and simple baffle or guard 10, which is secured to the inner sloping wall of the cone substantially in the line of the longitudinal axis of the valve, by rivets 10'. The lower end 10^a of the guard is preferably an enlarged crescent which partially overlaps and restricts the water-outlet 6^e, in a manner to cause the relatively small body of water to effectually plug or seal the unrestricted portion of said outlet and prevent any of the steam from escaping during the initial opening of the valve. After the first rush of the water through the opening 6^e, the guard 10 plays a less important part, because the water subsequently flows in a continuous stream that substantially fills the exit 6^e. The flaring top 6^e of the cover 6 is normally closed, except during the filling operations, by an auxiliary cover 12, the latter being provided with a depending annular flange 12' which is received in the seat 6^d, as well as with a handle 12^a, by which it is manipulated. The cover 12 prevents any dirt or dust from entering the funnel 6^b and fouling the interior of the kettle.

Having thus described my invention, what I claim, is—

1. The combination with a kettle cover having a central depression, the top of the latter having an annular seat, an auxiliary lid supported by said seat, and a counter-weighted valve for normally closing the bottom of said depression, of a baffle partially covering and restricting the opening in the bottom of the depression for preventing steam from entering the depression when the valve is forced open by the weight of the water.

2. A kettle cover having a central depression, the top of said depression comprising a vertical annular seat, an auxiliary lid engaging said seat, a counter-weighted valve for normally closing the bottom of the depression adapted to open automatically by the weight of the water flowing through the depression, and a baffle partially covering the opening in the bottom for preventing steam from entering said depression.

3. A kettle having a filling opening in its top skirted by an upturned flange, a main cover having a depending flange received by the flange of the kettle, and having a hollow truncated body extending below said flanges, a counter-weighted valve for normally closing the small end of the body, said valve adapted to open by the weight of the water passing through the body, and a guard disposed adjacent the small end of the body for preventing the escape of steam into the body during the opening movements of the valve.

4. A kettle having a filling opening in its top, a cover supported in said opening and having a hollow truncated body extending below said opening, the flaring top of said body being formed with a vertical seat, a valve for closing the contracted bottom of the body adapted to open by the weight of water at the start of the filling operations, an auxiliary cover supported in said seat, and means disposed in said body adjacent the bottom opening for preventing the escape of steam from the kettle during the initial opening movements of the valve.

In testimony whereof I affix my signature.
DOUGLAS CLARKE.