W. G. KENDALL.

TOP FOR RECEPTACLES.

APPLICATION FILED DEC. 19, 1912.

1,067,523.

Patented July 15, 1913.

Fig. 1.

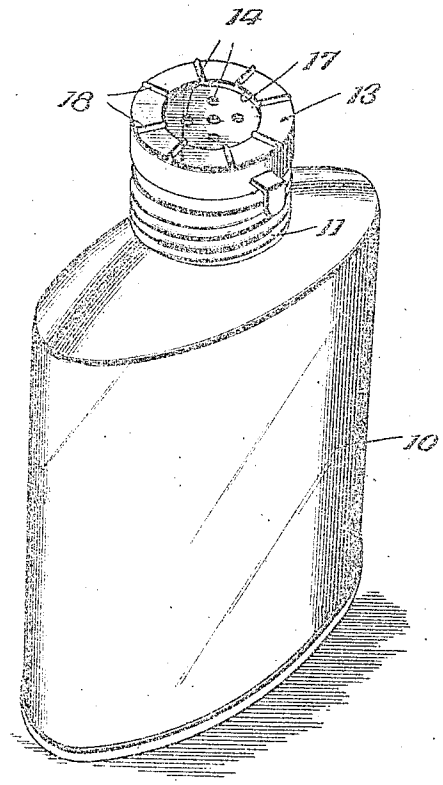


Fig. 2.

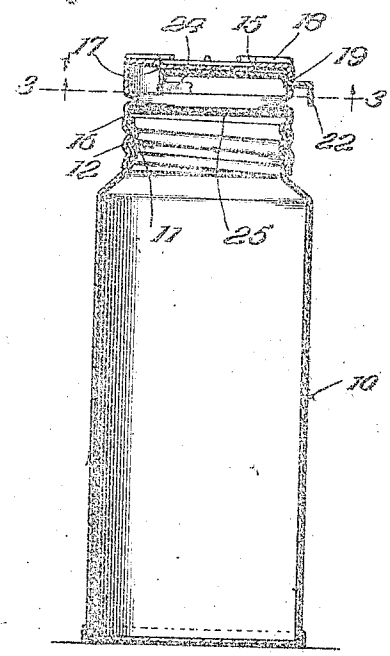


Fig. 3.

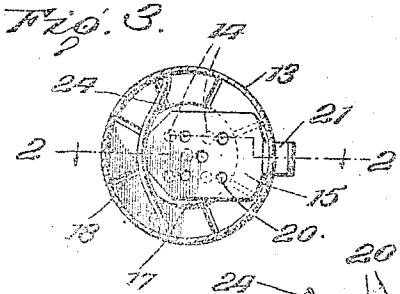


Fig. 4.

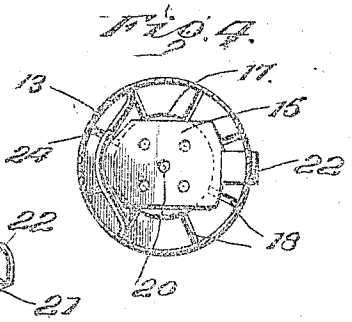
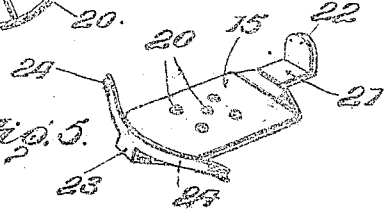


Fig. 5.



Witnesses:

Richard Stevens

Inventor

W. G. Kendall.

By

Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM G. KENDALL, OF NEWARK, NEW JERSEY.

TOP FOR RECEPTACLES.

1,067,523. Specification of Letters Patent. Patented July 15, 1913.

Application filed December 19, 1912. Serial No. 737,716.

To all whom it may concern:

Be it known that I, WILLIAM G. KENDALL, citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Tops for Receptacles, of which the following is a specification.

My invention relates to new and useful improvements in covers or caps for cans or other receptacles and the object of my invention is to provide a sifter cap for toilet powder cans, although it will of course be understood that the cap may be used upon cans for other purposes or upon bottles or other receptacles, if found suitable.

A further object of my invention is to provide a removable screw cap which may be readily applied to or removed from powder cans of conventional construction and which carries the complete sifter mechanism, the cap and its sifter mechanism being therefore entirely independent of the can construction.

A further object of my invention is to provide a can cap having a plurality of spaced discharge openings or perforations and a perforated plate supported against the inner face of the cap and movable to bring its perforations into and out of alinement with the perforations of the cap to permit the discharge of powder through the cap or to cut-off the passage of powder as the case may be.

A further object of my invention is to provide means for holding this discharge controlling plate yieldably against the inner face of the cap and also for normally holding the same in such position as to prevent the passage of powder through the cap. And a still further object of my invention is to construct this sliding plate with an integrally formed tongue extending through the side of the cap and forming an operating means for the plate and also with integrally formed spring arms engaging against the inner face of the cap to hold the plate yieldably in position.

With these and other objects in view, my invention will be more fully described, illustrated in the accompanying drawing, and then specifically pointed out in the claims which are attached to and form a part of this application.

In the drawing: Figure 1 is a perspective view of my improved cap applied to a conventional form of toilet powder can; Fig. 2 is a central vertical section on the line 2—2 of Fig. 3, showing the position of the sliding plate within the cap and particularly showing the manner in which the spring arms of the plate serve to hold the plate in engagement against the inner face of the cap; Fig. 3 is a section on the line 3—3 of Fig. 2, looking in the direction of the arrows and showing the closure plate in position to cut-off the passage of powder from the can; Fig. 4 is a view similar to Fig. 3, but showing the closure plate in its other position; Fig. 5 is a detail perspective view, upon a somewhat enlarged scale, of the sliding closure plate employed in controlling the discharge of powder from the can.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

The preferred embodiment of my invention, as clearly illustrated in the drawing, includes a powder can 10 of conventional type provided with a threaded discharge neck 11 adapted to receive the threaded collar or flange 12 of a cap 13, the top of which is provided with a plurality of sifter or discharge openings 14. My invention furth r consists in the provision of a sliding plate 15 mounted within the cap and adapted to control the discharge of powder therethrough.

More specifically the cap 13 is provided immediately above the threaded portion of its collar or flange with an instruck annular groove forming an inwardly directed bearing shoulder 16 extending around the cap and in spaced relation to the top thereof. The central portion of the top of the cap is depressed as best shown at 17 and it is this depressed portion which is perforated. In order to stiffen the top of the cap and therefore permit the cap to be formed of either relatively light metal or of pressed paper or other fiber as seen fit, the peripheral portion of the cap is provided with a plurality of radially extending upwardly directed ribs 18 formed in any well known manner by interiorly depressing portions of the cap top and extending from the inwardly depressed portion to the edge of the cap. That portion of the collar or flange of the cap between the top and shoulder 16 is provided at

BEST AVAILABLE COPY

one side with a slot 19, the purpose of which will be hereinafter fully explained.

The sliding plate 15 comprises a substantially rectangular shaped body member provided with perforations 20 arranged to correspond with the perforations 14 of the cap and provided at one end with an integrally formed tongue 21 which is bent into slightly offset relation to the body of the plate and which is extended outwardly through the slot 19 of the cap with its free end bent downwardly as shown at 22. The body portion of the plate 15 at the end opposite this tongue is provided with a downwardly extending tongue 23 terminating at its free end in laterally projecting, arcuate arms 24 which, as clearly illustrated in the drawings, are bent transversely along their longitudinal axes or medial lines to stiffen the same. This sliding plate 15 is formed of resilient metal and the arms 24 are so proportioned and curved as to engage against the inner face of the cap collar or flange 12 between the top of the cap and the bearing shoulder 16. Furthermore, these arms are preferably directed downwardly at a slight angle in such a manner that their free ends which engage against the inner face of said collar also bear upon the annular shoulder 16 and exert an upward pressure to maintain the body portion of the sliding plate in close engagement against the inner face of the cap top.

As will be readily understood, the free ends of the arms 24, bearing as they do against the arcuate inner face of the cap collar and normally tending to spread apart, force the sliding plate to the position shown in Fig. 3 of the drawing, in which position the tongue 21 with its downturned terminal 22 are spaced a slight distance from the cap, the perforations in the cap being then covered by imperforate portions of the sliding plate. Upon exerting inward pressure against the downbent terminal 22 of the sliding plate, the latter is forced inwardly against the resiliency of the spring arms 24 to bring the perforations of the plate in alinement with the perforations of the cap top and so permit the discharge of the contents of the can.

As clearly shown in Fig. 4 of the drawing, the length of that portion of the tongue 21 between the cap and downbent portion 22 of the tongue, is such that when the downbent portion 22 is forced against the outer face of the cap, the perforations of the plate will register with the perforations of the cap top. Because of this, all danger of forcing the sliding plate beyond its operative position is avoided. As soon as pressure is removed from the tongue 21, the spring arms 24 will return the sliding plate to the position shown in Fig. 3 of the drawing when the offset portion of the tongue connecting the intermediate portion with the body of the plate will bear against the inner face of the cap collar or flange and prevent further movement. The spring arms are at all times under certain tension and all rattling movement of the sliding plate is therefore prevented.

In order to insure the supply of powder to the cap free of lumps to prevent all clogging of the cap, I preferably provide a perforated disk 25 which seats between the upper end of the can neck and the inwardly directed shoulder 16 of the cap and which effectively breaks up all lumps in the powder and therefore prevents clogging of the cap.

While I have illustrated the cap as adapted for threaded engagement with a threaded can neck, it will of course be understood that I do not wish in any way to limit myself to the manner of attaching the cap to the can, this depending entirely upon the construction of the can with which the cap is to be used. In fact, I do not wish in any way to limit myself to the specific details of construction illustrated and described, reserving the right to at the same time, make such minor changes in details of construction, within the scope of my claims, as may appear desirable.

Having thus described the invention, what is claimed as new is:

1. A sifter cap for cans including a top and an integrally formed collar adapted for attachment to a can, the top being pressed downwardly centrally to form a seat and upwardly radially from the center to form reinforcing ribs, the downwardly depressed portion of the top being perforated, and a sliding perforated plate mounted in the cap and movable to bring its perforations into and out of alinement with the perforations of the top, said plate being yieldably held against the seat formed by the downwardly depressed portion of the top.

2. A sifter cap for cans including a perforated top and a collar adapted for attachment to a can, said collar being pressed inwardly to provide an annular shoulder projecting in spaced relation below the top, a perforated plate seating against the inner face of the top, an integrally formed tongue extending from the plate through a slot formed in the collar, and oppositely directed integrally formed arms carried by the plate and bearing against the inner face of the collar and upon the upper face of the shoulder to normally hold the plate with its tongue in extended position and in close engagement against the inner face of the top.

3. A sifter cap for cans including a perforated top and an integral collar for attachment to a can, a sliding plate mounted in the cap and having perforations movable into and out of alinement with the perfora-

tions of the top, a tongue extending from one end of the plate through the collar, and a tongue extending downwardly from the other end of the plate and provided with laterally directed spring arms, the ends of which engage against the inner face of the collar to normally hold the plate with its tongue in extended position, said spring arms being bent transversely along their longitudinal axes to increase their stiffness.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM G. KENDALL. [L. S.]

Witnesses:

JOHN HENRY VAN COURT,

FREDERICK M. BOLLES.