

July 7, 1925.

1,545,226

L. E. BALTZLEY

SIFTER TOP

Filed Oct. 16, 1924

Fig. 1.

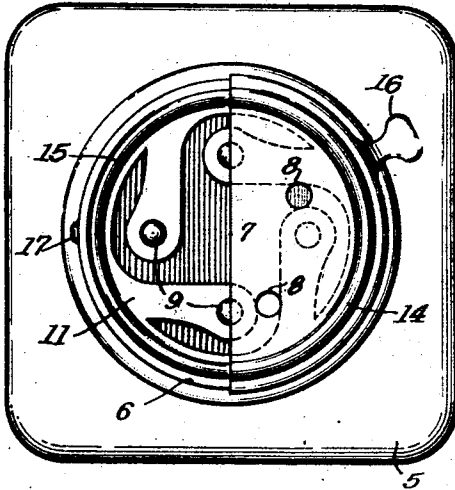


Fig. 2.

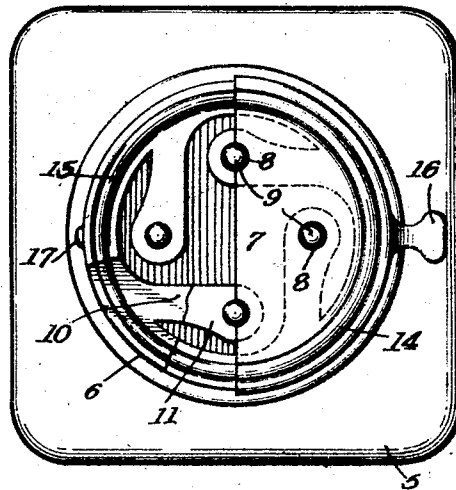


Fig. 3.

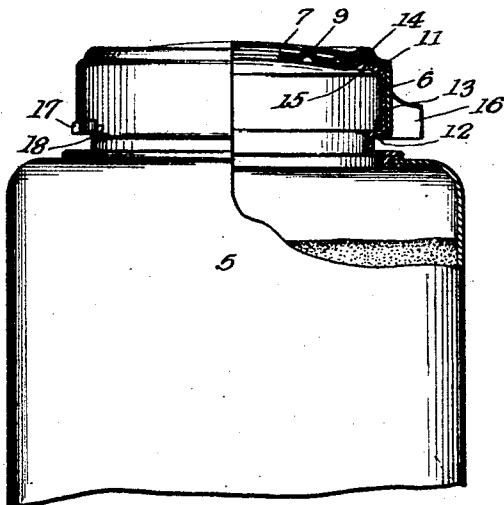
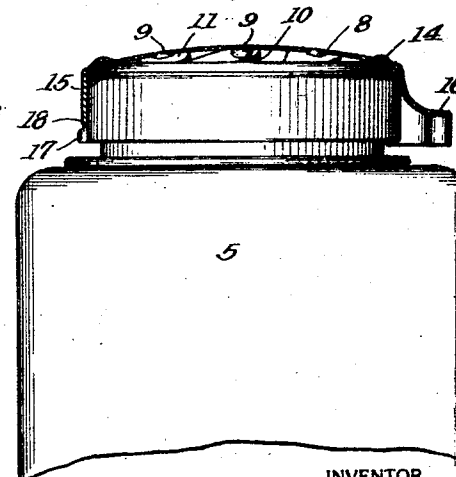


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SIFTER TOP.

Application filed October 16, 1924. Serial No. 743,909.

To all whom it may concern:

Be it known that I, LOUIS E. BALTZLEY, a citizen of the United States, and a resident of Glen Ridge, Essex County, and State of New Jersey, have invented certain new and useful Improvements in Sifter Tops, of which the following is a specification.

The objects of this invention are to provide a simple, inexpensive and practical form of sifter top for powder containers and the like which can be easily operated by the fingers of one hand and which when closed will seal the contents so as to preserve the same and retain the original aroma, perfume, or other desirable qualities.

In the accompanying drawing forming part of this specification I have illustrated the invention embodied in one of its most practical commercial forms, but it should be understood that the structure may be modified in various respects without departure from the broad spirit and scope of the invention as hereinafter defined and claimed.

Figure 1 is a top plan view of a powder container having this improved sifter top applied thereto, with the top shown cut away at one side and turned to uncover the discharge perforations.

Figure 2 is a similar view with the cap shown turned back to close and seal the discharge ports.

Figures 3 and 4 are broken part sectional side elevations showing the parts as they appear respectively in Figures 1 and 2.

The container 5 is shown in the form of a can for dispensing toilet powder or the like, having a head or discharge neck 6.

Engaged over the head or neck portion of the can is a cap 7 having a suitable number of ports or perforations 8 therein designed to be closed by a corresponding number of valve elements 9 at the free ends of the spring fingers 10. These spring fingers may be integral extensions of the neck or head portion 6, which are given a sufficient initial spring tension to carry the valve elements at the free ends of the same upwardly into firmly seated engagement in the discharge ports. These valve elements, where the parts are constructed of sheet material, as shown, may be simply rounded protuberances punched up at the ends of the spring arms, as best shown in Figure 3.

The contents are sealed substantially air and moisture-tight when the ports are closed

by a gasket or packing 11 shown in the form of a layer of packing material shaped to overlie the spring fingers and perforated for the passage of the valve protuberances, as indicated in Figures 3 and 4, by which said gasket is held against rotation and is enabled to fit closely against the under side of the top.

The cap is rotatably confined over the discharge mouth or neck of the container by having a flange 12 slidably engaging beneath an annular shoulder 13 provided on the neck.

Cooperating annular ridges 14 and 15 on the cap and the neck of the container serve to guide the cap in its rotary movements and a finger-hold 16 is shown struck from one side of the cap for imparting the rotary motions thereto. To limit the extent of rotation, the neck of the container is shown carrying an outwardly projecting lug 17 cooperating with the shoulders provided at the ends of a slot 18 in the edge of the cap.

Figures 1 and 3 show how when the cap is rotated left-handedly, the ports 8 will be carried clear of the closures 9 so that the powder can then be sifted freely through such openings.

Figures 2 and 4, on the other hand, show how when the cap is turned back to bring the ports into register with the closures, said closures will snap into the openings, thereby closing them and bringing the packing material into sealing engagement with the under side of the cap about the perforations therein. Consequently, in this relation, the contents will be fully sealed. This is particularly desirable where the powder is scented or apt to be affected by moisture, a dry condition of the air or the like.

The rounded protuberances 9 act as small cams to hold the cap in both the closed and the open relations and enable the cap to be easily shifted, for instance, by the thumb of the one hand in which the container is held.

In addition to their guiding functions, the cooperating ridges 14, 15 on the cap and container top provide, in conjunction with the interposed gasket, a resilient or cushioning effect to compensate for any inequalities in the mounting of the cap on the container, making unnecessary exact accuracy in the crimping of the lower edge of the cap beneath the shoulder 13 and assuring easy movement of the cap at all times. The rounded or cam shaped closures 9 serve to

protect the gasket from undue wear because they are depressed in the first movement of the cap so as to relieve the gasket from upward pressure against the under side of the cap.

What is claimed is:

1. In a device of the character disclosed, spring fingers carrying closure protuberances at the free ends of the same, a perforated cap engaged over said spring fingers and shiftable to carry the perforations therein into and out of registration with the closure protuberances.
2. In a device of the character disclosed, spring fingers carrying closure protuberances at the free ends of the same, a perforated cap engaged over said spring fingers and shiftable to carry the perforations therein into and out of registration with the closure protuberances and a packing interposed between the spring arms and inside surface of the cap, said packing being perforated for passage of the closure protuberances therethrough.
3. In a device of the character disclosed, a discharge mouth having a spring finger therein, said finger carrying a rounded closure element at the free end of the same, a cap rotatably engaged over the discharge mouth having a perforation to receive the closure and adapted by its rotation to cam the rounded closure clear of the perforation.
4. In a device of the character disclosed, a discharge mouth having a spring finger therein, said finger carrying a rounded closure element at the free end of the same, a cap rotatably engaged over the discharge mouth having a perforation to receive the closure and adapted by its rotation to cam the rounded closure clear of the perforation and a packing overlying the spring arm and surrounding the rounded closure.
5. In combination, a container, spring fingers carried thereby and provided with closure protuberances at the free ends of the same and a cap rotatably engaged on said container and having perforations therein to receive the closure protuberances and adapted in its rotation on the container to bring the perforations into position receiving the closure protuberances and to force said protuberances out of said perforations and entirely out of register therewith.
6. In a closure construction, cooperating members, one perforated and the other having a closure to enter the perforation and provide a closure therefor, said members being yieldably related and movable to enable relative movement of the perforated and closure members and the clearance of the closure member from the perforation and a packing between the two relatively movable members surrounding the closure so as to be positioned thereby and to form a

seal entirely about the perforation when the closure is engaged in the perforation.

7. In a closure construction, a perforated sifter top, spring pressed individual closures for the perforations in said top, said closures and perforated top being relatively rotatable to clear the closures of the perforations and cooperating annular guiding shoulders on the relatively movable parts.

8. In a closure construction, a perforated sifter top, spring pressed individual closures for the perforations in said top, said closures and perforated top being relatively movable to clear the closures of the perforations, cooperating guiding shoulders on the relatively movable parts and a packing between the relatively movable parts and shaped to correspond to the cooperating shoulders.

9. In a closure construction, cooperating members, one perforated and the other having a closure to enter the perforation and provide a closure therefor, said members being yieldably related and movable to enable relative movement of the perforated and closure members and the clearance of the closure member from the perforation and cooperating shoulders on the two members slidably engaging for guiding same in their relative movements.

10. In a closure construction, cooperating members, one perforated and the other having a closure to enter the perforation and provide a closure therefor, said members being yieldably related and movable to enable relative movement of the perforated and closure members and the clearance of the closure member from the perforation, cooperating shoulders on the two members for guiding same in their relative movements and a gasket interposed between the members and held by said cooperating shoulders.

11. A container having a neck with an external shoulder and provided with spring fingers carrying closure elements, a gasket seated on said spring fingers and extending about said closure elements and a perforated cap engaged over said gasket having a securing flange turned under the external shoulder and having the perforations therein positioned for registration with the closure elements.

12. In a closure construction, a container, a cover movably confined to said container and provided with a discharge perforation, a spring finger carried by the container and provided with a rounded closure element for entering the perforation in the cap and means for guiding the movement of the cap on the container to cause the same to cam the rounded closure clear of the perforation.

13. In a closure construction, container and cover members connected for relatively

shifting movement, one having a discharge opening and the other a spring pressed closure engageable in said opening and a packing interposed between the members and surrounding the closure element to prevent leakage past the closure element when said element is in cooperative relation with the opening.

14. In a closure construction, container and cover members connected for relatively shifting movement, one having a discharge opening and the other a spring pressed clo-

sure engageable in said opening and a packing interposed between the members and surrounding the closure element to prevent leakage past the closure element when said element is in cooperative relation with the opening, said closure being of greater height than the thickness of the packing to prevent rubbing of the packing in the relative shifting of the two members.

In witness whereof, I have hereunto set my hand this 18th day of August, 1924.

LOUIS E. BALTZLEY.