E. HOFFMAN.

SIFTER TOP FOR TALCUM POWDER CANS AND THE LIKE.

APPLICATION FILED JAN. 31, 1916.

1,301,847. Patented Apr. 29, 1919.

Fig. 1

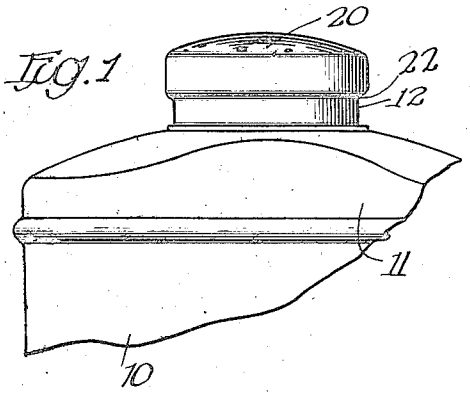


Fig. 5

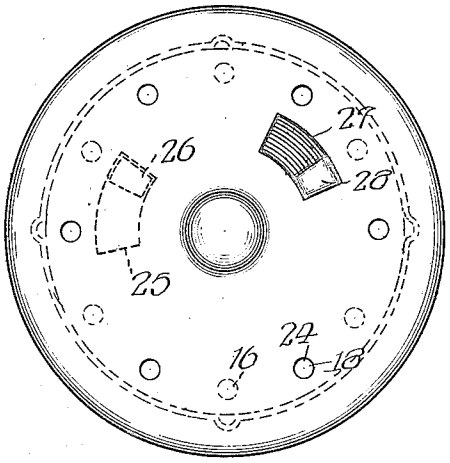


Fig. 4

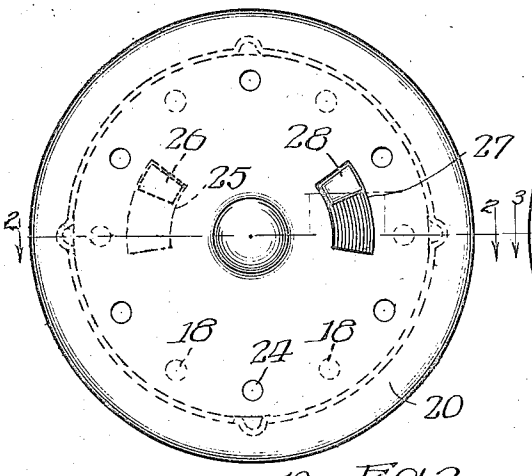


Fig. 6

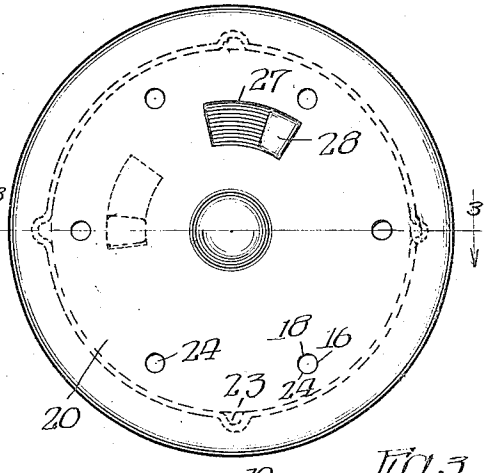


Fig. 2

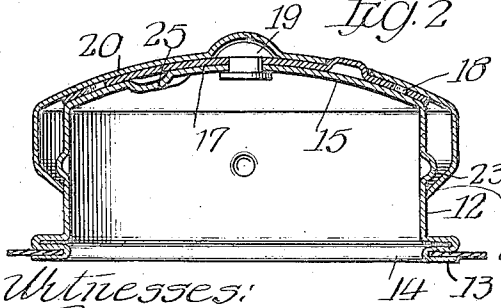
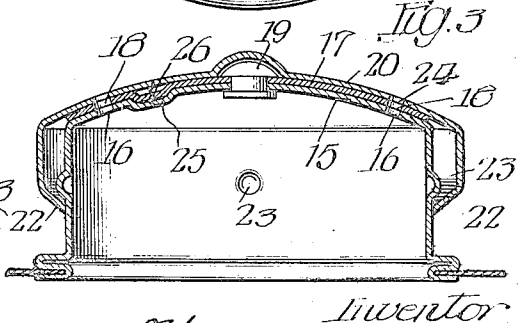


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

EDMUND HOFFMAN, OF BROOKLYN, NEW YORK, ASSIGNOR TO AMERICAN CAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

SIFTER-TOP FOR TALCUM-POWDER CANS AND THE LIKE.

1,301,847. Specification of Letters Patent. Patented Apr. 29, 1919.

Application filed January 31, 1916. Serial No. 75,216.

To all whom it may concern:

Be it known that I, EDMUND HOFFMAN, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sifter-Tops for Talcum-Powder Cans and the like, of which the following is a specification.

This invention relates in general to sifter tops for powder dispensing packages and the like and has more particular reference to sifter top boxes provided for the packaging of talcum and face powder, although it will be manifest that the invention has other and wider application.

A principal object of the invention is the provision of a talcum powder box so constructed and arranged that no powder may leak out when the box is closed, and this without regard to the amount of handling and jostling in shipping that the package may receive.

Talcum powder boxes are frequently packed with many other articles in grips and traveling bags where they may rub against certain surrounding objects and the sifter top moved angularly so that the perforations come in registration and the powder leaks out into the bag.

It is an object of this invention to provide a construction where this will not occur. Furthermore, indenting of the tops of powder boxes constructed prior to my invention has frequently permitted the powder to leak out, whether the perforations of the parts were in registration or not. This also my present invention aims to overcome.

A still further object of the invention is the provision of such a powder box which will be readily operable, which will not differ in appearance materially from those already in use and which may be economically constructed.

Other objects and advantages of the invention will be apparent as it is better understood from the following description when considered in connection with the accompanying drawing illustrating a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a partial side view of a talcum powder box equipped with a cover embodying my invention;

Figs. 2 and 3 are enlarged vertical sections through the top or cover; and

Figs. 4, 5 and 6 are top plan views showing the different arrangements of the parts when in closed, intermediate and open positions.

For the purpose of illustrating my invention I have shown on the drawing a talcum powder box comprised of a body 10 having a cover 11 on the top of which is secured a neck 12 by seaming or otherwise suitably fastening its lower edge 13 in an opening 14 in the top of the cover. The neck 12 is closed at its top 15 to provide a stationary top, this top being perforated as is usual with apertures 16 arranged at intervals on a circumference about the center of the neck.

Upon the outer face of the stationary cover or top 15 is placed a disk 17 which may be termed an intermediate closure, this disk being also provided with apertures 18 extending through it, said apertures 18 being adapted to aline with the apertures 16 under certain predetermined conditions, as will be later described. This disk is held in place, in the embodiment of the invention shown on the drawing, by a rivet 19 extending through it and through the stationary closure.

An outer rotatable sifter closure 20, much like that ordinarily employed except in certain particulars, which will be described, embraces the neck. The bottom edge 22 of this closure is bent in to engage the outer surface of the cylindrical part of the neck 12 beneath a number of projections 23 which hold the outer closure 20 in place. This closure is also provided with perforations 24 adapted to aline with the perforations 16 and 18.

The stationary top 15 is depressed at 25 arcuately about the center of movement of the disk and outer closure 20, and in the depression 25 a depressed part 26 of the disk 17 is disposed, these depressions providing coöperating stops which limit the movement of the disk with respect to the stationary closure. Similar coöperating stops between the disk and the outer closure are provided by cutting away the outer closure to provide an arcuate slot 27 and pressing the disk up to provide a projection 28 extending into the slot. Fig. 4 shows the arrangement of the

parts when the container is closed, and it will be noted that in this event the stop 26 is in the forward end of the depression or stop 25 in the direction of movement of the disk to closed position, this movement in the figures in the embodiment of the invention shown on the drawing being in a clockwise direction. The stop 28 is located in the rear end of the slot 27 in this direction of movement, and the three sets of apertures located respectively in the stationary top, the disk and in the outer rotatable closure are out of registration. When it is desired to open the disk, the outer rotatable member or closure is grasped by the hand and turned in a counter-clockwise direction. The early part of this motion is unaccompanied by a motion of the disk, this motion bringing the stop 28 to the rear end of the slot 27, considered in connection with the direction of movement. When the stop 28 contacts with the rear end of the slot 27 the apertures in the disk and in the outer rotatable closure are in registration, but they are both out of registration with the apertures in the stationary top, as is seen in Fig. 5. Further movement of the outer rotatable closure is accompanied by movement of the disk imparted to it by the movement of the outer closure. The two movable parts thus move together over the stationary part until the stop 28 engages the forward end of the depression or stop 25 of the stationary cover, in which position the apertures in the stationary cover come into registration with the already alined apertures in the disk and in the movable cover. This arrangement is seen in Fig. 6. In closing the container the operation is reversed, and this by turning the outer rotatable cover or closure in a clockwise direction. First the apertures of the disk and outer closure move out of registration and later the apertures in the disk and stationary closure are moved from alinement, bringing the parts back to the position shown in Fig. 4. On the drawing the apertures in each part are spaced a distance equal to twice the operative length of the slot 27 or depression 25 and when thus arranged the apertures 24 are over the apertures 16 when the parts are arranged in closed position, at which time the apertures 18 are located halfway circumferentially between successive apertures 24 and 16.

It will be manifest that in thus providing a seal or disk member between the cover and closure the friction between the parts is increased by reason of the fact that two sets of friction surfaces must move over each other to permit opening of the container, thereby reducing and almost entirely obviating the chance of inadvertent opening of a talcum powder box while in a hand-bag or grip. Should one of the parts become loose and easily movable with respect to the others, the box will still be closed by reason of the fact that such movement cannot bring the three sets of apertures into the necessary registration. Also if a container is dented in such manner as to cause a separation of the outer rotatable member or cap and the inner stationary member or neck, the disk must be in close contact with one part or the other, sealing correspondingly a set of apertures so that powder cannot leak from one set of apertures to the other between the parts. The provision of this disk adds little to the cost of the package, as it contains little material and does not materially increase the number of operations necessary in the construction of the package.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing any of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A sifter top for talcum powder cans and the like, comprising a fixed top having sifting perforations, a first movable closure having sifting perforations adapted to register with the perforations of the top or to be moved out of registry therewith, a second movable closure having sifting perforations adapted to register with those of the top and those of the first closure, when the latter are in registry, and adapted also to be moved out of registry with the perforations of the top and of the first closure.

2. A sifter top for talcum powder cans and the like comprising a perforated stationary top, and a plurality of perforated movable closures, said closures being both movable with respect to said stationary top and with respect to each other, one of said movable closures being adapted to actuate another of said movable closures.

3. A sifter top for talcum powder cans and the like comprising a stationary top, and a pair of closures movable relative to each other, one of said last mentioned closures being moved by the other after such relative movement.

4. A sifter top for talcum powder cans and the like comprising a stationary top, a pair of independently rotatable closures which are also rotatable together, said top and closures having perforations adapted for registration when said closures are arranged in a predetermined position, and co-acting stops for alining said perforations.

5. A double cut-off sifter top, comprising an inner perforated top, an outer perforated cap which is movable relative to said top, and an intermediate perforated cut-off element which is movable relative to said

top and relative to which the said cap is movable, said intermediate element cutting off the sifting through said top and said cap cutting off the sifting through said intermediate element.

6. A sifter top for talcum powder boxes and the like comprising an inner stationary perforated top, and an outer movable perforated closure, and an interposed perforated disk permanently positioned between said top and outer closure and inclosed by them, and means whereby said outer closure is movable for a distance independently of said disk, and for another distance in unison with said disk, both of said movements being relative to said top.

7. A sifter top comprising a fixed top having sifting perforations, an intermediate movable closure having sifting perforations adapted to register with those of the top and to be moved out of registry therewith, and an outer closure movable relative to said top and to said intermediate closure and having sifting perforations adapted to register with those of the top and adapted to be moved to another position of registry, and means whereby said change of position of said outer closure positions the intermediate closure with its perforations out of registry with those of the top and those of the outer closure.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

EDMUND HOFFMAN.

Witnesses:
J. C. CARPENTER,
T. J. O'BRIEN.