April 21, 1953 R. H. AMAND ET AL 2,635,792

DISPENSING CONTAINER HAVING A PIVOTAL LIFT COVER REMOVABLE FOR FILLING

Filed March 2, 1950

Fig. 1.

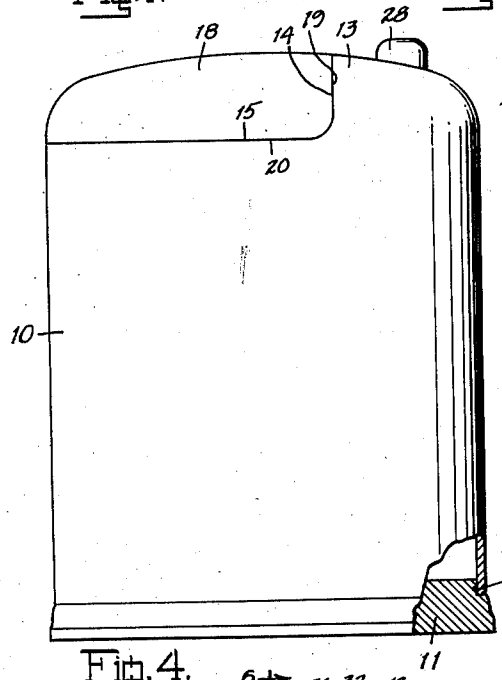


Fig. 2.

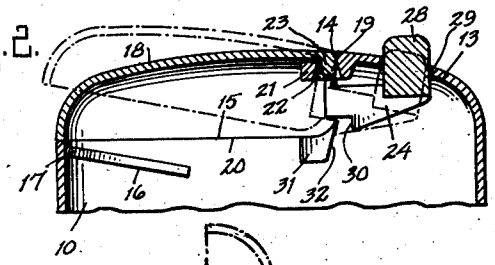


Fig. 3.

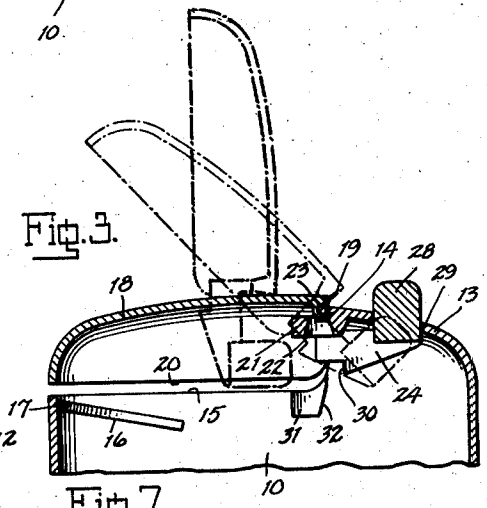


Fig. 4.

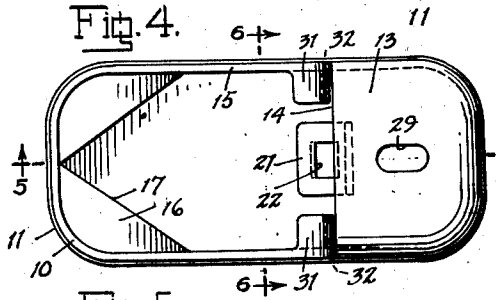


Fig. 7.

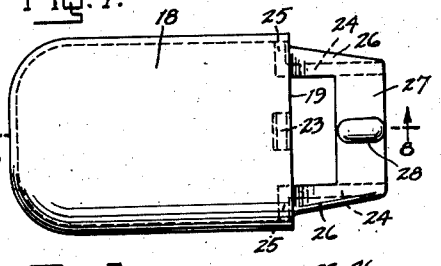


Fig. 5.

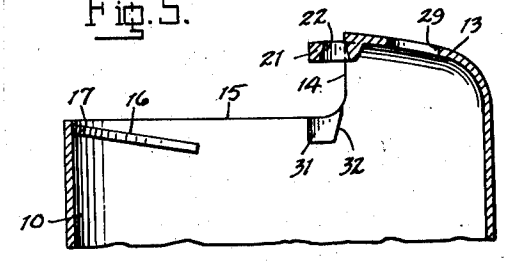


Fig. 8.

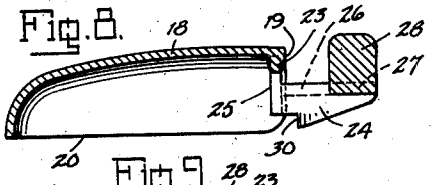


Fig. 9.

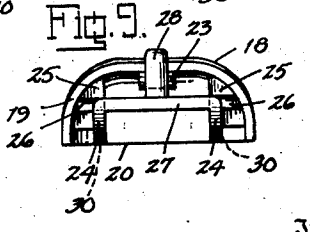
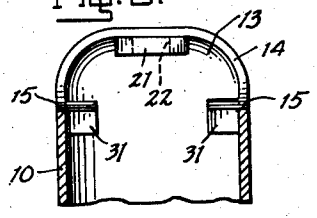


Fig. 6.



Inventors

RAYMOND H. AMAND AND

JULIEN J. BUCHWALDER

By

Attorney

Patented Apr. 21, 1953 2,635,792

UNITED STATES PATENT OFFICE

2,635,792

DISPENSING CONTAINER HAVING A PIVOTAL LIFT COVER REMOVABLE FOR FILLING

Raymond H. Amand, East Norwalk, and Julien J. Buchwalder, Trumbull, Conn., assignors to Eastern Tool & Die, Inc., Fairfield, Conn., a corporation of Connecticut

Application March 2, 1950, Serial No. 147,272

7 Claims. (Cl. 222—547)

1

The present invention relates to a dispensing container, particularly for soap or other powder, flakes, pellets or liquid, and has for an object to provide a container of this character of simple and inexpensive construction, lending itself to production from moulded plastic materials in various colors so that it will constitute an attractive and conveniently accessible kitchen counter accessory. It is particularly proposed to provide a dispensing container adapted to be periodically filled by the housewife with soap powder or other material from the large bulk package in which such material is purchased, thus doing away with the necessity for frequent handling of the heavy unwieldy bulk package and enabling it to be stored out of sight.

A further object of the invention is to provide an improved combination container body and cover structure whereby the cover is pivotally connected to the body by inter-engaging parts respectively provided in integral relation upon the body and cover, without the use of extraneous connecting means such as the screws, pins, shafts, springs, nuts, clips and the like heretofore used for such purposes. It is a further object to provide such inter-engaging means to permit the operation of the cover into open position by finger pressure of the index finger of the hand holding the container, such finger pressure firmly retaining the cover against relative movement, so that the container may be shaken or otherwise handled without displacement of the cover. A further object is to provide inter-engaging means which may be readily engaged or disengaged to assemble or disassemble the cover by relative movement of the cover in a direction which is not its normal operating direction, that is for instance by a relative vertical movement of the cover as distinguished from its normal pivotal operating movement.

With the above and other objects in view an embodiment of the invention is shown in the accompanying drawings, and this embodiment will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out in the claims.

In the drawings:

Fig. 1 is a side elevation of the dispensing container, according to the illustrated exemplary embodiment of the invention, the same being shown partially in vertical section.

Fig. 2 is a vertical sectional view of the upper end of the container with the cover in its normal closed position and showing in broken lines the open position of the cover.

Fig. 3 is a similar view showing the cover relatively moved preparatory to disengaging it from the container body, the light and heavy broken lines indicating respectively two relatively moved positions of the cover in its engaging or disengaging movement.

2

Fig. 4 is a top plan view of the container body with the cover removed.

Fig. 5 is a vertical sectional view of the upper end portion of the container body, taken along the line 5—5 of Fig. 4.

Fig. 6 is a vertical sectional view of the upper end portion section of the container body, taken along the line 6—6 of Fig. 4.

Fig. 7 is a top plan view of the cover.

Fig. 8 is a vertical sectional view of the cover, taken along the line 8—8 of Fig. 7.

Fig. 9 is an end view of the cover as seen from the right in Fig. 7.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings the dispensing container, according to the illustrated exemplary embodiment of the invention, comprises a container body 10 having a vertical surrounding side wall of rectangular cross-section with rounded corners, the lower end of the container body being closed by a base wall 11, preferably separately formed from the wall 10 and provided with a peripheral right-angle recess 12 engaged by the lower end of the wall 10 and secured thereto by plastic cement or other suitable means. At the upper end of the container body there is provided a top wall portion 13 integrally formed with the side wall 10 and partially enclosing the upper end of the container body, this top wall portion being flush with the rearward side of the body and having a forward edge 14 disposed in a vertical plane at a right-angle to the horizontal plane of the upper edge 15 of the side wall 10. These edges 14 and 15 define the opening in the upper end of the container body, which, as shown clearly in Fig. 4, is of sufficiently large size to enable the convenient filling of the container body when the cover is removed. Integrally formed within the container body adjacent the upper end of its forward wall portion there is provided a downwardly and inwardly inclined baffle wall 16 having a V-shaped cut-off 17 to enable the material in the container to be poured in a restricted controlled stream of any desired size simply by varying the pouring angle.

The cover 18 is of a suitable shape to conform to the top wall portion 13 so that in the closed position the upper end of the closed container is of symmetrical and attractive form, being

shown as of convexly rounded domed form. The cover has a vertical rearward edge 19 and a horizontal lower edge 20 which conform to and are adapted to fit in flush relation upon the edges 14 and 15 of the container body.

Upon the forward edge portion of the top wall 13 there is integrally formed a forwardly projecting fulcrum portion 21 having its upper surface substantially flush with the under surface of the cover member in the engaged position of the latter, so that the rearward marginal edge portion of the under surface of the cover has fulcrum engagement with the upper side of the fulcrum portion 21, as will presently more fully appear. A hole 22 is provided in the fulcrum portion 21, of rectangular outline and having downwardly divergent forward and rearward walls, this hole being adapted to be engaged by a downwardly projecting lug 23 provided centrally of the rearward marginal portion of the underside of the cover 18, its forward and rearward walls being downwardly convergent, and the rearward wall being coincident at its upper end with the rearward edge 19 of the cover. The upper end of the lug is slightly less in its front to rear dimension than the front to rear dimension of the upper end of the hole 22, so that in pivotally moving the cover to open position, as shown in Fig. 2, the rearward edge of the cover may have a slight forward sliding movement upon the fulcrum member 21 as lug 23 swings within the hole 22, the downwardly divergent form of the hole and the downwardly convergent form of the lug permitting this swinging movement. The dimension of the lug between its parallel vertical side walls is such that these side walls will fit within the parallel vertical side walls of the hole 22 with just sufficient clearance to permit free tilting movement of the cover without any appreciable relative sidewise movement.

Upon the underside of the cover, in spaced relation at each side of the centrally disposed lug 23, there are provided rearwardly projecting arm portions 24—24 connected to the underside of the cover by suitable web portions 25—25 and horizontal rib portions 26—26, a horizontal bridge platform 27 extending between the rearward end portions of the arms 24 upon which there is provided a centrally disposed upwardly extending press button 28, which in the assembled position of the cover projects upwardly through a hole 29 provided in the top wall portion 13 of the container body. In the assembled position the forward side of the press button is approximately in contact with the forward side of the hole 29 so as to restrain the cover against relative forward movement upon the container body. The spacing of the parallel vertical side walls of the press button are such that they engage the parallel vertical side walls of the hole 29 with just sufficient clearance to permit free movement in the hole without appreciable sidewise movement. Thus the combined action of the inter-engagement of the lug 23 with the hole 22 and the press button 28 with the hole 29 fixes the position of the cover against relative sidewise movement with respect to the container body.

Each of the arm portions 24 is provided at its underside with a vertically disposed notched hook portion 30 and in the swinging paths of these hook portions there are provided upon the side walls of the container body stop portions 31—31, each having a downwardly and forwardly inclined rearward wall 32 adapted in the open position of the cover, as shown by the broken lines in Fig. 2, to be engaged by the hook portions 30 to limit the open position of the cover, the normally vertical forward sides of the hook portions being substantially parallel to the inclined walls 32 in the open position of the cover, so that a positive interlocking relation takes place when the cover is opened.

The operation is as follows: The cover 18 is engaged with the container body 10 by first holding it in a substantially vertical position, as shown by the heavy broken lines in Fig. 3, and thereupon moving the push-button 28 rearwardly through the space beneath the fulcrum portion 21, the hook portions 30 at each side at the same time moving through the space between the under surface of the top portion 13 and the stop lugs 31. As the cover is moved rearwardly and its rearward edge 19 comes into relation above the fulcrum portion 21, it is rotated to bring the push-button 28 into the hole 29 and the projecting lug 23 into line with the hole 22, whereupon the cover will drop into its normally closed position, as shown in Fig. 2. In this position the projecting lug 23 is engaged in the hole 22 and the hook portions 30 have been lowered to a position where their paths of movement will bring them into contact with the stop lugs 31 upon opening movement of the cover, this opening movement being brought about by depressing the push-button 28 with the index finger of the hand holding the container. In the open position, as shown by the broken lines in Fig. 2, the forward surface of the projecting lug 23 moves into relation with the forward undercut inclined surface of the hole 22 and the forward vertical surfaces of the hook portions 30 engage the undercut inclined surfaces 32 of the lugs 31, so that the cover is positively locked against vertical or other movement as long as pressure is exerted upon the press button 38. This pressure results in components of holding force upon the pivotal engaging point of the cover with the fulcrum portion 21 and the engaging points of the hook portions 30 with the lugs 31. It is thus possible for the container to be shaken or otherwise manipulated while the cover is held in open position without the possibility of accidental disengagement of the cover. In order to disengage the cover for the purpose of filling the container, it is only necessary to lift it vertically, as shown by the full lines in Fig. 3, to bring the projecting lug 23 and the hook portions 30 upwardly, so that the cover can be swung free by first moving it through the space beneath the fulcrum portion 21 and above the lugs 31 as shown by the light broken lines, and then moving it forwardly into vertical position clear of the fulcrum portion 21, as shown by the heavy broken lines in Fig. 3.

We have illustrated and described a preferred and satisfactory embodiment of the invention, but it will be understood that changes may be made therein, within the spirit and scope thereof, as defined in the appended claims.

What is claimed is:

1. In a dispensing container, a container body having a base, a surrounding side wall, and a top wall partially closing the upper end of the container body and having a push-button-receiving hole, there being an opening at the upper end of said container body forwardly of said top wall, a cover engageable over said opening, fulcrum support means carried by said top wall extending beneath and pivotally engaged by the rearward marginal portion of said cover, push-button means rigidly carried by said cover engaged in and movable through said push-button-receiving

hole arranged to pivotally lift said cover upon being depressed, stop means carried by said container body interiorly thereof, and stop engaging means carried by said cover interiorly thereof movable in a path to engage said stop means upon pivotal lifting movement of said cover to limit the opening movement of said cover, said push-button means being of such size with respect to said hole that it is engageable and disengageable with respect thereto through pivotal movement of said cover.

2. In a dispensing container, a container body having a base, a surrounding side wall, and a top wall partially closing the upper end of the container body, there being an opening at the upper end of said container body forwardly of said top wall, a cover engageable over said opening, fulcrum support means carried by said top wall extending beneath and pivotally engaged by the rearward marginal portion of said cover, operating means arranged to be actuated to pivotally lift said cover, stop means carried by said container body and stop engaging means carried by said cover movable in a path to engage said stop means upon pivotal lifting movement of said cover to limit the opening movement of said cover, the path of movement of said stop engaging means being movable out of engaging relation with said stop means upon relative vertical lifting movement of said cover from its closed position.

3. In a dispensing container, a container body having a base, a surrounding side wall, and a top wall partially closing the upper end of the container body, there being an opening at the upper end of said container body forwardly of said top wall, a cover engageable over said opening, fulcrum support means carried by said top wall extending beneath and pivotally engaged by the rearward marginal portion of said cover, operating means arranged to be actuated to pivotally lift said cover, stop means carried by said container body having an undercut locking surface, and stop engaging means carried by said cover movable in a path to engage said undercut locking surface of said stop means upon pivotal lifting movement of said cover to limit the opening movement of said cover, the path of movement of said stop engaging means being movable out of engaging relation with said stop means upon relative vertical lifting movement of said cover from its closed position.

4. In a dispensing container, a container body having a base, a surrounding side wall, and a top wall partially closing the upper end of the container body, there being an opening at the upper end of said container body forwardly of said top wall, a cover engageable over said opening, fulcrum support means carried by said top wall having an upper surface extending beneath and pivotally engaged by the under surface of the rearward marginal portion of said cover, said fulcrum support means having an opening extending downwardly from its upper surface, a projecting lug on said cover engaged in said last mentioned opening for relative swinging movement therein upon pivotal lifting of said cover, operating means arranged to be actuated to pivotally lift said cover, said projecting lug being disengageable from said last mentioned opening upon relative vertical lifting movement of said cover from its closed position.

5. In a dispensing container, a container body having a base, a surrounding side wall, and a top wall partially closing the upper end of the container body, there being an opening at the upper end of said container body forwardly of said top wall, a cover engageable over said opening, fulcrum support means carried by said top wall having an upper surface extending beneath and pivotally engaged by the under surface of the rearward marginal portion of said cover, said fulcrum means having an opening extending downwardly from its upper surface, a projecting lug on said cover engaged in said last mentioned opening for relative swinging movement therein upon pivotal lifting of said cover, operating means arranged to be actuated to pivotally lift said cover, said projecting lug being disengageable from said last mentioned opening upon relative vertical lifting movement of said cover from its closed position, stop means carried by said container body, and stop engaging means carried by said cover movable in a path to engage said stop means upon pivotal lifting movement of said cover to limit the opening movement of said cover, the path of movement of said stop engaging means being movable out of engaging relation with said stop means upon relative vertical lifting movement of said cover from its closed position.

6. In a dispensing container, a container body having a base, a surrounding side wall, and a top wall partially closing the upper end of the container body and having a push-button-receiving hole, said top wall having a forward edge disposed in a vertical plane and said side wall having an upper edge defining an opening at the upper end of said container body forwardly of said top wall, a cover engageable over said opening having a rearward edge disposed in a vertical plane and a bottom edge respectively engageable with said forward and upper edges of said container body, fulcrum support means carried by said top wall having an upper surface extending beneath and pivotally engaged by the under surface of the rearward marginal portion of said cover, said fulcrum means having an opening extending downwardly from its upper surface, a projecting lug on said cover engaged in said last mentioned opening for relative swinging movement therein upon pivotal lifting of said cover, push-button means carried by said cover engaged in said push-button-receiving hole arranged to pivotally lift said cover upon being depressed, said projecting lug being disengageable from said last mentioned opening upon relative vertical lifting movement of said cover from its closed position, stop means carried by said container body, and stop engaging means carried by said cover movable in a path to engage said stop means upon pivotal lifting movement of said cover to limit the opening movement of said cover, the path of movement of said stop engaging means being movable out of engaging relation with said stop means upon relative vertical lifting movement of said cover from its closed position.

7. In a dispensing container, a container body having a base, a surrounding side wall including a forward wall portion and side wall portions, and a top wall partially closing the upper end of the container body, there being an opening at the upper end of said container body forwardly of said top wall, a baffle wall within said container at the forward end of said opening connected to said forward and side wall portions having a substantially V-shaped pouring recess having forwardly converging side edges meeting at a substantially central point of said forward wall portion, a cover engageable over said opening, fulcrum support means carried by said top wall ex-

tending beneath and pivotally engaged by the rearward marginal portion of said cover, operating means arranged to be actuated to pivotally lift said cover, stop means carried by said container body, and stop engaging means carried by said cover movable in a path to engage said stop means upon pivotal lifting movement of said cover to limit the opening movement of said cover.

RAYMOND H. AMAND.
JULIEN J. BUCHWALDER.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,700,793	Fitzgerald	Feb. 5, 1929
1,854,472	Jones	Apr. 19, 1932
2,096,993	Merz	Oct. 26, 1937
2,173,787	Luckel	Sept. 19, 1939

FOREIGN PATENTS

Number	Country	Date
234,378	Great Britain	May 28, 1925
752,214	France	Sept. 19, 1933