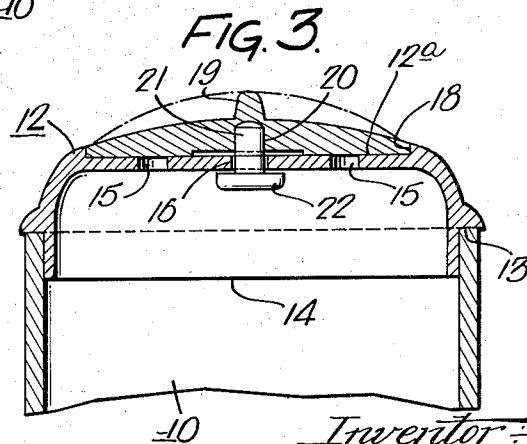
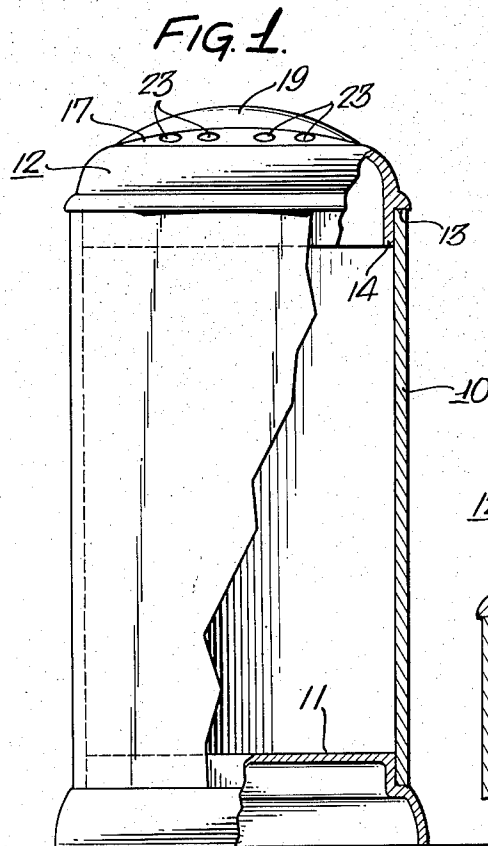
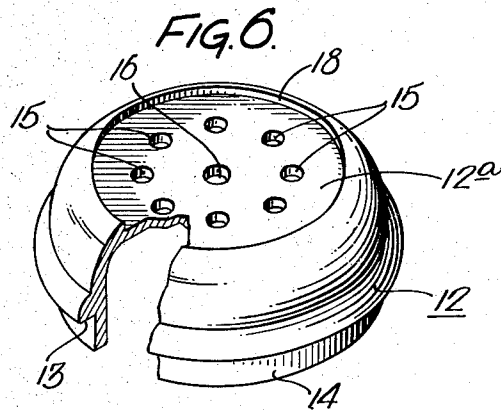
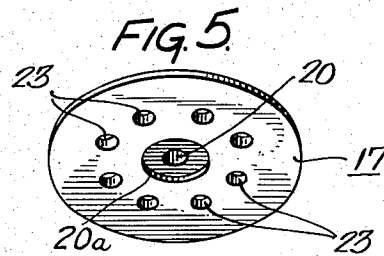
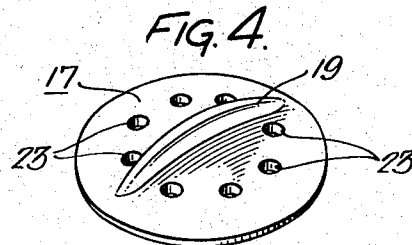
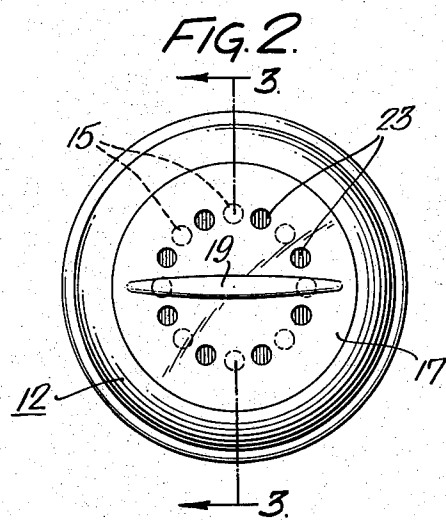


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2,569,162

SIFTING CONTAINER CONSTRUCTION COMPRISING A PERFORATED
PLASTIC LID AND A ROTATABLE PERFORATED PLASTIC CAP
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SIFTING CONTAINER CONSTRUCTION COMPRISING A PERFORATED PLASTIC LID AND A ROTATABLE PERFORATED PLASTIC CAP

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1 Claim. (Cl. 222-548)

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This invention relates to sifting containers and has to do more particularly with an improved leak proof plastic lid construction for such a container.

Many attempts have been made to provide a satisfactory lid for sifting containers which are intended to carry various types of powdered material. Such a container or lid must be tight enough to prevent leakage of the powder during shipment and at all times when the lid is closed. Furthermore, it is highly desirable that a container of this type have a pleasing appearance and be capable of easy operation so that it may be quickly opened and closed. In many cases it is also advantageous to employ a lid which may be partially opened so that the amount of material being sifted can be regulated. A metallic lid is unsightly and subject to corrosion to the extent that the contents may become contaminated, the perforations stopped up, or the rotatable closure is made extremely difficult or impossible to operate. Even at this late date, the largest producers of household cleansers use a metallic top container in which the perforations must be punched out in order to sift the cleanser. This construction, of course, insures against leakage in transit but provides an extremely unsightly appearance and does not permit any regulation of the sifting once the perforations have been made, and there is no way in which the lid may be closed after it is opened.

The primary object, therefore, of the invention is to provide a container for powdered or granular material which is inexpensive to fabricate and which has a pleasing appearance.

A further object of the invention is to provide a sifting lid construction fabricated of synthetic plastic material which provides a tight seal in one position and which may be readily operated to enable sifting of the contents of the container without the necessity of punching holes.

A still further object of the invention is to provide a synthetic plastic sifting lid for containers which has no exterior fastening means between the rotatable closure member and the lid proper.

Further objects will be apparent from the specification and drawings in which:

Fig. 1 is a side elevation, partly sectioned, of a sifting container constructed in accordance with the invention;

Fig. 2 is a plan of the structure of Fig. 1;

Fig. 3 is an enlarged sectional detail as seen at 3-3 of Fig. 2;

Fig. 4 is a perspective showing the top of the cap or closure member;

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Fig. 5 is a perspective showing the underside of the cap or closure member; and

Fig. 6 is a perspective, partly sectioned, showing the container lid proper.

The invention comprises essentially the provision of a synthetic plastic lid member having a circular recess on top and an annular lip around the outer periphery of the lid. There are no overhanging sections in the lid proper so that it may be molded from a synthetic plastic material. A series of perforations in the bottom of the recessed portion of the lid provide the desired sifting egress for the contents of the container. A closure member or cap comprising an outwardly convex disc having a diametric web or rib on its outer surface is provided with a series of perforations adapted to register with the perforations in the lid recess. The tolerances between the recess and the lid and the cap may be closely controlled so that the lid has a free turning fit in the recess but at the same time there is no danger of leakage. Both the lid proper and the cap are provided with central bores so that in the assembly a headed pin may be inserted from the inside of the lid and cemented into the blind hole in the cap thus retaining the cap in close fitting relation to the recess.

Referring now more particularly to the drawings, a sifting container constructed according to the invention has a cylindrical body member 10 preferably fabricated of paper or cardboard. A hollow base 11 is cemented to the cardboard and is fabricated of a synthetic plastic material adapted for molding. The lid 12 is also of a synthetic plastic material and is provided with an annular shoulder 13 which abuts the upper edge of the body member 10, and a skirt 14 which fits inside the body member and whereby it may be conveniently cemented. The upper portion of the lid 12 is of generally convex curvature to provide a pleasing outward appearance and the top of the lid has a flat circular recess 12a of somewhat smaller diameter than the skirt 14. A series of perforations 15, 15 in the base of the lid are concentrically located around the center thereof and a larger hole 16 is provided exactly at the center of recess 12a. The closure or cap 17 is of a diameter slightly smaller than the diameter of recess 12a so that a tight rotating fit between the cap 17 and the lid 12 is achieved. The thickness of the cap at its periphery corresponds to the height of the wall 18 of recess 12a, so that when the cap is in place a smooth outer contour is provided as shown in Figs. 1 and 3 and additional sealing is attained.

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The upper or outside surface of cap 17 is desirably convex in order that it may blend pleasingly with the contour of the lid proper. The upper surface is also provided with an integral web 19 by means of which the cap may be rotated in the recess 12a. The smooth blending contour of the web is shown by the broken lines in Fig. 3. A blind hole or socket 20 having an enlarged diameter forming a recess 20a as shown in Figs. 3 and 5 is provided in the center of the cap. In assembly, the cap is placed in the recess 12a whereupon a synthetic plastic headed pin 21 is cemented into socket 20 so that the head 22 of pin 21 seats tightly but rotatably against the inside of lid 12. The recess 20a on the underside of the cap serves to trap any excess cement, thus preventing the cap from adhering to the lid proper. A series of perforations 23, 23 in the lid are concentric therewith and register with perforations 15, 15 in the lid when the cap is rotated in the recess 12a. In any intermediate position the holes 15 and 23 are completely closed with respect to each other or a partial opening may be achieved to provide limited sifting.

It will be apparent that no metal parts are used in the container at all. The lid element 12 has only three pieces, all of which are adapted for maximum production in plastic material. The design is such that fairly close tolerances may be maintained without unduly increasing costs and the result being that an inexpensive, non-metallic, tight, sifting lid has been provided. The use of a synthetic plastic material readily adapts itself to various colors which enhance the appearance of the entire container. The web 19 has a smooth contour and will not cut the fingers or be otherwise objectionable. The container is readily assembled since the container body is attached to the lid after the cap and pin have been cemented in place, thus eliminating the necessity of reaching into the container body to install the cap. The outward appearance is ex-

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tremely pleasing and the inconvenience of previous forms of containers has been eliminated without increasing the expense. Since containers of this nature are intended to be non-refillable, it is essential that the cost of the container be such that it may be destroyed after the contents have been removed. Heretofore no disposable container meeting all the requirements has been provided.

I claim:

A lid assembly for sifting containers comprising a lid member formed of synthetic plastic material, a synthetic plastic cap rotatably mounted on said lid, the cap and the lid having concentric apertures positioned to register with each other in selective positions of the cap, walls defining a socket on the underside of the cap, a headed pin extending through the lid and cemented in the socket, and walls on the underside of the cap defining an enlarged recess contiguous to the socket for retaining excess cement, thereby preventing the cap from becoming cemented to the lid.

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