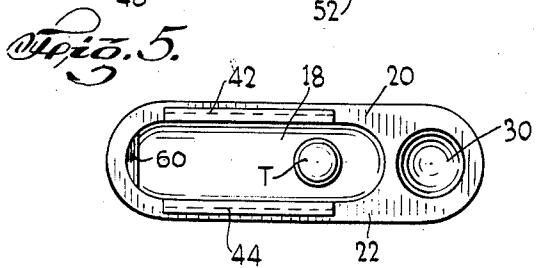
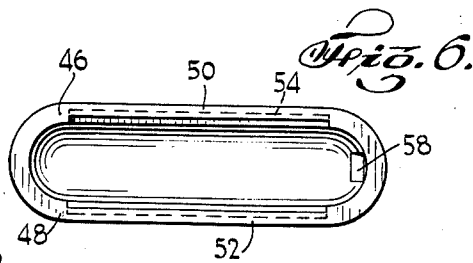
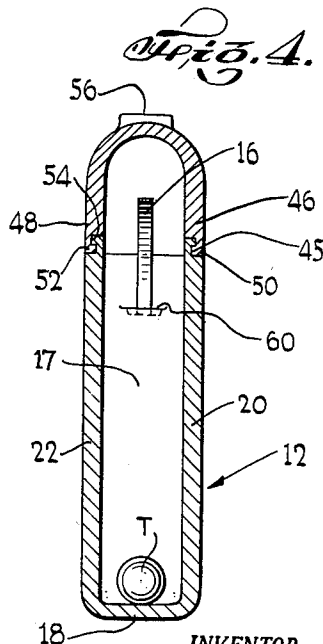
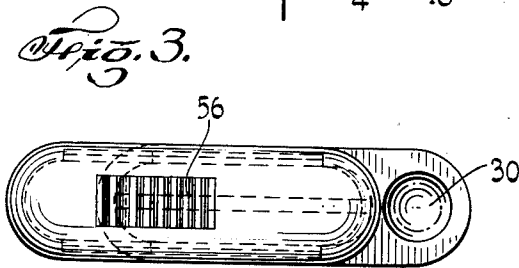
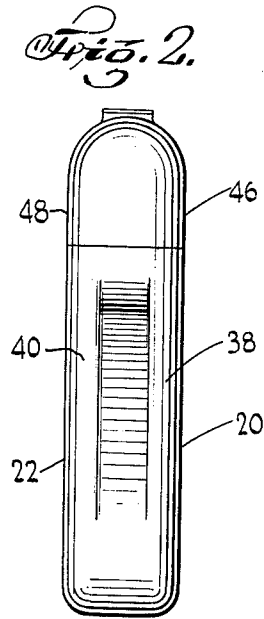
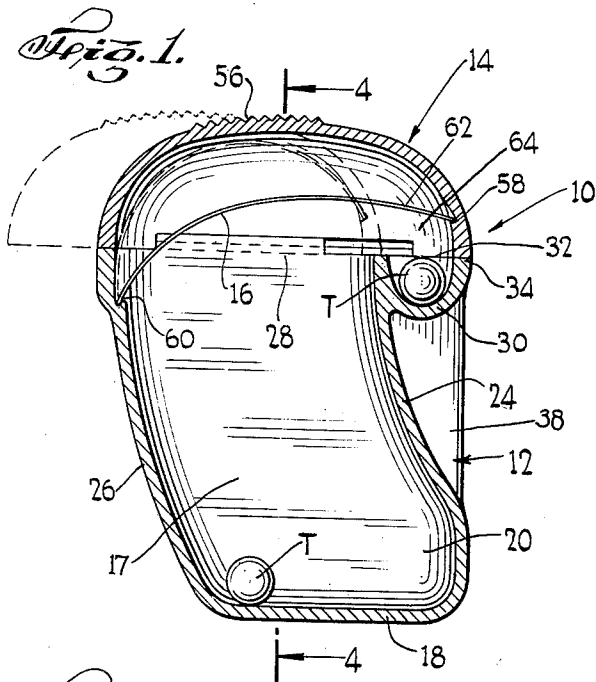


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DISPENSING CONTAINER
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DISPENSING CONTAINER

Stanley Blackman, Brooklyn, N. Y.

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13 Claims. (Cl. 206—42)

This invention relates to dispensing containers. More particularly the invention is directed to a container of the type which segregates a predetermined quantity of material while the container is closed and, upon movement of the cover, exposes the segregated material for distribution without exposing the remaining material in the container.

One of the objects of my invention is to provide a dispensing container of the character described which shall be simple and economical to manufacture.

Another object of my invention is to provide a dispensing container of the character described which comprises relatively few and simple parts, which is rugged in construction and which can be readily fabricated from inexpensive non-metallic materials such as plastics.

Another object of my invention is to provide a plastic dispensing container of the character described which shall comprise but three parts, a container body, a cover, and means for biasing the cover to closed position, and in which the container body and cover are so shaped and dimensioned that they can be molded to substantially finished form in simple two part molds.

Another object of my invention is to provide a plastic dispensing container of the character described in which the three parts comprising the container can be assembled simply by manipulation and without requiring additional parts or additional forming operations.

Another object of my invention is to provide a plastic dispensing container of the character described whose cross-sectional area diminishes from top to bottom whereby filling of the container and stripping from a mold is facilitated.

Another object of my invention is to provide a dispensing container of the character described in which the mouth is of greater cross-sectional area than the rest of the container body and in which the dispensing compartment which receives the segregated material extends outwardly away from the main compartment, but is so supported and arranged that it is laterally concealed and cannot easily be damaged.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the claims.

In the accompanying drawing, in which is

shown one of the various possible embodiments of this invention,

Fig. 1 is a vertical central longitudinal section through a container embodying my invention;

Fig. 2 is a front view thereof;

Fig. 3 is a top view with the cover displaced so as to expose the dispensing compartment;

Fig. 4 is a sectional view taken substantially along the plane indicated by the line 4—4 in Fig. 1;

Fig. 5 is a top view of the container body with the cover removed; and

Fig. 6 is a bottom view of the cover.

Referring now to the drawing, 10 denotes a dispensing container constructed in accordance with my invention. Said dispensing container comprises a container body or receptacle 12, a cover 14, and a narrow leaf spring 16 for biasing the cover to closed position. Both the container 12 and cover 14 are molded from a suitable plastic material such, for example, as a phenolic, urea, vinyl, vinylidene, acrylic, styrene, polyterpene hydrocarbon, or melamine resin, a cellulose ester, a cellulose ether, or a protein plastic.

The container body 12 comprises a large main compartment 17 defined by a bottom wall 18, two side walls 20, 22, and front and back walls 24, 26. The two side walls 20, 22, and the front and back walls 24, 26 are substantially parallel but flare slightly and uniformly toward the mouth 28 of the main compartment 17 to facilitate stripping of the container body 12 from a mold and filling thereof with a dispensable product. The two side walls 24, 26 are substantially vertical and straight (see Fig. 4) but the front and back walls 24, 26 are curved about a common center (see Fig. 1) in order to set back the mouth 28 of the main compartment from the forward edge of the bottom wall 18 for a purpose which will soon be apparent. It will be appreciated that by using substantially the same center of curvature for the front and back walls 24, 26, the container body 12 can be stripped from curved molds.

Lying forwardly of the top of the front wall 24 is a dispensing compartment 30 which is of such size and shape that when closed off it will accommodate a desired predetermined quantity of material or number of tablets T. To simplify the construction and molding of the cover 14 and the container body 12, the mouths 28, 32 of both the main and dispensing compartments may be disposed in the same horizontal plane. The rear of said dispensing compartment 30 comprises a part of the front wall 24 of the main compartment. The tip 34 of the dispensing compartment

extends forwardly from said wall 24 a distance substantially equal to the distance that the top of said front wall is set back, so that said tip is substantially vertically aligned with the front edge of the bottom wall 18 (see Fig. 1).

In order to support, reinforce, and protect the jutting dispensing compartment 30, roughly triangular parallel planar extensions 38, 40 are formed on the side walls 20, 22 forwardly of the front wall 24 and laterally of said dispensing compartment. Said extensions 38, 40 run out almost to said tip 34 and merge at their upper sides into the walls of the dispensing compartment (see Fig. 3). These extensions may be slightly thicker (Fig. 2) than the side walls 20, 22 of the main compartment (Fig. 4) to enhance the appearance of the dispensing container. The walls of the dispensing compartment 30 are all flared toward the mouth 32 thereof and are otherwise so shaped that they may be stripped from the curved molds on which the container body 12 is formed.

During molding, the side walls 20, 22 are provided with a pair of parallel rails 42, 44 projecting from their top edges and extending for substantially less than the length of said walls. Said rails are disposed adjacent the inner surface of the container body 12, and, subsequent to molding, are undercut to provide shallow grooves 45 along the outwardly facing surfaces thereof.

The cover 14 has a plan contour (Fig. 6) substantially the same as that of the container body 12 (including the dispensing compartment 30) and is cupped to permit transfer of material from the main to the dispensing compartment when the container is closed.

The two side walls 46, 48 of the cover are provided during molding with two parallel thin portions 50, 52 which serve as cover guide rails and are disposed adjacent the outer surface of the cover so that they are spaced apart slightly more than the body rails 42, 44. Said cover rails are undercut along the inwardly facing surfaces thereof to provide shallow grooves 54. The container body and cover grooves 45, 54 are so dimensioned that when the body and cover guide rails 42, 44, 50, 52 are laterally juxtaposed the cover 14 will be slidably locked on the container 12. The length of the cover guide rails 50, 52 is greater than the length of the body guide rails 42, 44 by an amount substantially equal to the length of the dispensing compartment 30 in the direction of movement of the cover. Due to this construction, the ends of the heavier portions of the cover side walls 46, 48, where the rails 50, 52 terminate, serve as stops in conjunction with the ends of the container body guide rails 42, 44 to limit reciprocation of the cover 14 relative to the container body 12. Said cover and body guide rails are so arranged that at one extreme position of the cover (Fig. 3) the dispensing compartment will be fully exposed, but the interior of the main compartment 17 will still be covered, and at the other extreme position (Fig. 1) of the cover both dispensing and main compartments will be covered.

If desired, serrations 56 may be formed in the top of the cover to facilitate manipulation thereof.

The spring 16, which biases the cover to the closed position (Fig. 1) has its forward end resting in a niche 58 in the cover, and its rear end resting on a ledge 60 in the container body. The niche 58 may be cut in the cover subsequent to molding.

In accordance with an ancillary feature of the invention the dispensing compartment 30 is made only long enough to receive one tablet, and the portion 62 of the spring over said dispensing compartment cooperates with the rear wall and mouth of said compartment to define a passageway 64 which is only long enough and deep enough to allow one tablet at a time to pass therethrough. With such construction, after the container is inverted to charge the dispensing compartment and then righted, the single tablet lying in the passageway 64 will drop into the dispensing compartment and leave the passageway clear. This prevents mutilation or breakage of tablets by the cover when it is slid back to expose the dispensing compartment. It will be understood, of course, that the width of the compartment 30 and passageway 64 may be increased to accommodate two or more tablets without departing from the spirit of this feature of the invention.

It will be observed that the side walls 20, 22, 46, 48 of the container body and cover are relatively thin, which, since they are made out of a plastic material, makes them somewhat resilient and enables them to be manually deformed. Because of this construction the cover and container can be assembled with ease, without using tools or extra parts, and without having to deform the cover or container body after assembly to hold container parts together. The assembly of the cover and container is carried out by setting the rear end of the spring 16 on the ledge 60 and the forward end of said spring in the niche 58 while the cover and container body are held in closely spaced relationship. Opposed fingers of one hand then squeeze the side walls 20, 22 of the container body together thereby springing the body guide rails 42, 44 inwards. Simultaneously, the front and back of the cover are squeezed together thereby outwardly bowing the side walls 46, 48 of the cover and spreading the cover guide rails 50, 52 apart. These combined movements of the cover and container body guide rails suffice to allow the cover to be slipped over the container body with the lower portion of the cover guide rails horizontally aligned with the undercut grooves 45 in the body guide rails. The cover and container body can then be released, whereupon they will resume their normal shape with the guide rails interlocked as shown in Figures 1, 3, and 4.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A dispensing container comprising a container body and a cupped cover therefor both of molded plastic material, said container body having a large main compartment and a small dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers

only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment.

2. A container for dispensing articles of pre-determined size comprising a container body and a cover therefor, said container body having a large main compartment and a small dispensing compartment, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, said dispensing compartment being only long enough to receive one article, and means to define a passageway when said cover covers the mouths of both of said compartments, which passageway leads from said main compartment to said dispensing compartment, the portions of said passageway above the mouth of said dispensing compartment being only long enough and deep enough to receive fully one article, whereby when said container is inverted and then righted said passageway will be left clear.

3. A container for dispensing articles of pre-determined size comprising a container body and a cover therefor, said container body having a large main compartment and a small dispensing compartment, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, said dispensing compartment being only long enough to receive one article, and means to define a passageway when said cover covers the mouths of both of said compartments, which passageway leads from said main compartment to said dispensing compartment, said passageway defining means comprising a leaf spring whose opposite ends rest in recesses in the cover and container body, and which spring biases said cover to the first named of said extreme positions, the portions of said passageway above the mouth of said dispensing compartment being only long enough and deep enough to receive fully one article, whereby when said container is inverted and then righted said passageway will be left clear.

4. A dispensing container comprising a container body and a cover therefor both of molded plastic material, said container body having a large main compartment and a small dispensing compartment, said cover being slidably movable over the top of said container body between two extreme positions in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, said dispensing compartment lying immediately adjacent an upper wall of said main compartment, the walls of said dispensing compartment extending outwardly away from the walls of said main compartment, and means integral with the walls of said main compartment to support and laterally conceal the walls of said dispensing compartment.

5. A dispensing container comprising a container body and a cover therefor both of molded plastic material, said container body having a large main compartment and a small dispensing compartment, said cover being slidably movable

over the top of said container body between two extreme positions in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, said dispensing compartment lying immediately adjacent an upper wall of said main compartment, the walls of said dispensing compartment extending outwardly away from the walls of said main compartment, and means integral with and extending forwardly of the walls of said main compartment to reinforce and laterally conceal the walls of said dispensing compartment.

6. A dispensing container comprising a container body and a cupped cover therefor both of molded plastic material, said container body having a large main compartment and a small dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container body between two extreme positions in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, the side walls of said main compartment being planar and substantially parallel, the top of the front wall of the main compartment being set back from the front edge of the bottom wall of said main compartment, the walls of said dispensing compartment being integral with the walls of said main compartment and extending forwardly from the front wall of said main compartment whereby said dispensing compartment juts from said main compartment, the side walls of said main compartment having forward extensions integral with and merging into the walls of said dispensing compartment to aid in supporting and laterally concealing the same.

7. A dispensing container comprising a container body and a cupped cover therefor both of molded plastic material, said container body having a large main compartment and a small dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container body between two extreme positions in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, the side walls of said main compartment being planar and substantially parallel, the front and back walls of said main compartment being concentrically forwardly concavely curved, the top of said front wall being set back from the front edge of the bottom wall of said main compartment, the walls of said dispensing compartment being integral with the walls of said main compartment and extending forwardly from the front wall of said main compartment whereby said dispensing compartment juts from said main compartment, the side walls of said main compartment having parallel forward extensions integral with and merging into the walls of said dispensing compartment to aid in supporting and laterally concealing the same.

8. A dispensing container comprising a container body and a cupped cover therefor, said container body having a large main compartment and a small dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container between two extreme positions, in one of

which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, and means to mount said cover on said container body for such slidable movement, said means comprising a pair of parallel undercut guide rails on said container body and a pair of parallel cooperating undercut guide rails on said cover, one pair of said guide rails having integral stops on both ends thereof, said container body and said cover being made of resilient material whereby the other set of guide rails may be urged apart and one set of guide rails simultaneously urged together manually to permit said guide rails to be locked together without using tools, additional parts, or additional forming operations.

9. A dispensing container comprising a container body and a cupped cover therefor, said container body having a large main compartment and a small dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, and means to mount said cover on said container body for such slidable movement, said means comprising a pair of parallel undercut guide rails on said container body and a pair of parallel cooperating undercut guide rails on said cover, one pair of said guide rails having integral stops on both ends thereof, said pair of guide rails differing in length by an amount approximately equal to the maximum dimension of the mouth of said dispensing compartment parallel to the direction of movement of said cover plus the thickness of the adjacent cover end wall, said container body and said cover being made of resilient material whereby one set of guide rails may be urged apart and the other set of guide rails simultaneously urged together manually to permit said guide rails to be locked together without using tools, additional parts, or additional forming operations.

10. A dispensing container comprising a container body and a cupped cover therefor, said container body having a large main compartment and a small dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, and means to mount said cover on said container body for such slidable movement, said means comprising a pair of parallel undercut guide rails on said container body and a pair of parallel cooperating undercut guide rails on said cover, one pair of said guide rails having integral stops on both ends thereof, said pairs of guide rails differing in length by an amount approximately equal to the maximum dimension of the mouth of said dispensing compartment parallel to the direction of movement of said cover plus the thickness of the adjacent cover end wall, said container body and said cover having thin plastic resilient side walls, whereby one set of guide rails may be urged apart and the other set of guide

rails simultaneously urged together manually to permit said guide rails to be locked together without using tools, additional parts, or additional forming operations.

11. A dispensing container comprising a container body and a cupped cover therefor, said container body having a large main compartment and an auxiliary dispensing compartment, the mouths of said compartments being coplanar, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, and means to bias said cover to the first named of said extreme positions, said means comprising a leaf spring whose opposite ends rest in recesses in the cover and container body, and means to mount said cover on said container body for such slidable movement, said means comprising a pair of parallel undercut guide rails on said container body and a pair of parallel cooperating undercut guide rails on said cover, one pair of said guide rails having integral stops on both ends thereof, said pairs of guide rails differing in length by an amount approximately equal to the maximum dimension of the mouth of said dispensing compartment parallel to the direction of movement of said cover plus the thickness of the adjacent cover end wall, said container body and said cover having thin plastic resilient side walls, whereby one set of guide rails may be urged apart and the other set of guide rails simultaneously urged together manually to permit said guide rails to be locked together without using tools, additional parts or additional forming operations.

12. A container for dispensing articles of predetermined size comprising a container body and a cover therefor, said container body having a large main compartment and a small dispensing compartment, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, said dispensing compartment being of such configuration and cubic capacity as to fully accommodate a predetermined number of articles, and means to define a passageway when said cover covers the mouths of both of said compartments, which passageway leads from said main compartment to said dispensing compartment, the portions of said passageway above the mouth of said dispensing compartment being of such configuration and cubic capacity as to receive fully only said predetermined number of articles, whereby when said container is inverted and then righted said passageway will be left clear.

13. A container for dispensing articles of predetermined size comprising a container body and a cover therefor, said container body having a large main compartment and a small dispensing compartment, said cover being slidably movable over the top of said container body between two extreme positions, in one of which it covers the mouths of both of said compartments and in the other of which it covers only the mouth of said main compartment and fully exposes the mouth of said dispensing compartment, and means to define a passageway when said cover covers the mouths of both of said compartments, which pas-

passageway leads from said main compartment to said dispensing compartment, the portion of said passageway above the mouth of the dispensing compartment from the entrance of said passageway adjacent the main compartment to the opposite end of the passageway being long enough and deep enough to accommodate from one to

less than one and one-half articles, and said dispensing compartment being only long enough to receive one article whereby when said container is inverted and then righted said passageway will be left clear.

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