Feb. 21, 1967 C. N. TEBBUTT 3,305,145

DISPENSING CONTAINERS

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Fig. 1.

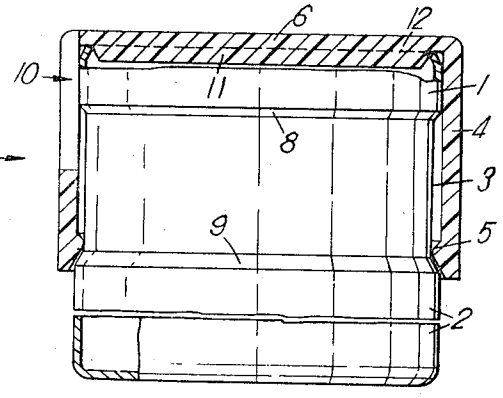


Fig. 2.

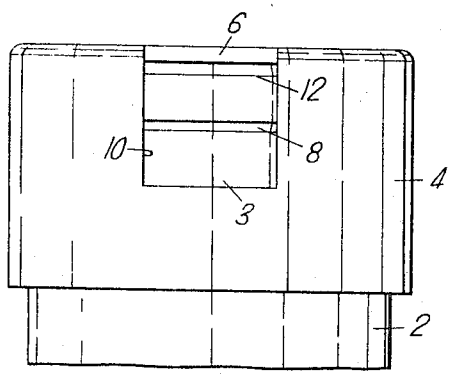
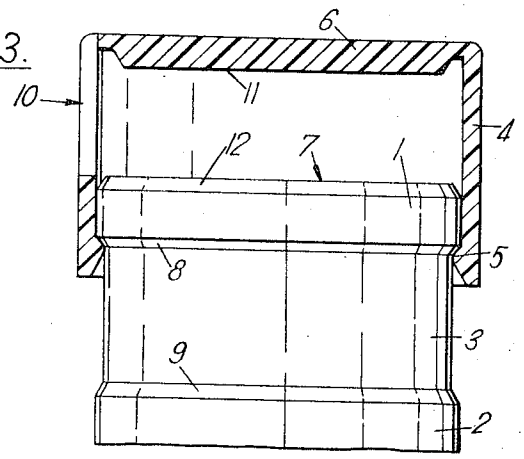


Fig. 3.



Inventor
Charles Norman Tebbutt.

By
Mason, Porter, Miller & Brown
Attorneys

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Fig. 4.

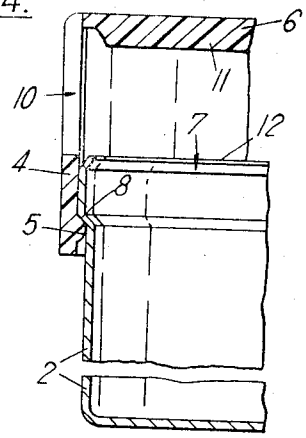


Fig. 5.

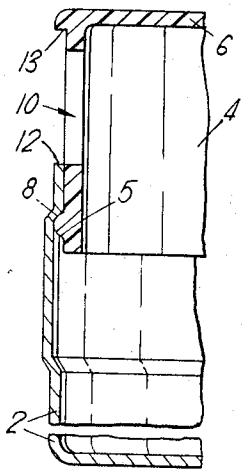
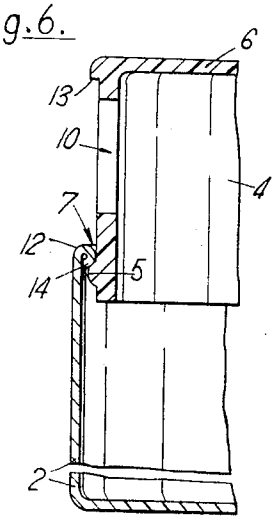


Fig. 6.



Inventor
Charles Norman Tebbutt.

By
Mason, Porter, Miller & Brown
Attorneys

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Fig. 7

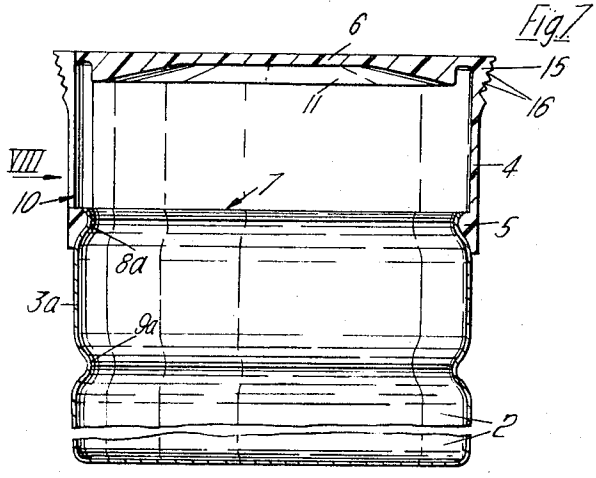
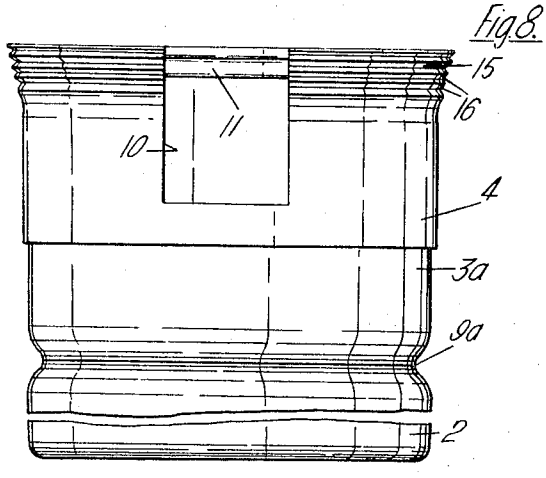


Fig. 8



Inventor
Charles Norman Tebbutt.

By
Mason, Porter, Diller & Brown
Attorneys

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3,305,145

DISPENSING CONTAINERS

Charles Norman Tebbutt, Southall, Middlesex, England, assignor to The Metal Box Company Limited, London, England, a British company

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Claims priority, application Great Britain, Mar. 11, 1964, 10,353/64
7 Claims. (Cl. 222—522)

This invention relates to dispensing containers particularly for tablets, pills or similar items.

According to the invention there is provided a dispensing container comprising an open-topped container body and a cap slidable axially relative to the container and constrained for axial movement between a body closing and a product dispensing position thereof, the cap including a skirt provided with a dispensing opening which is obturated by the container body when the cap is in the body closing position thereof and is exposed when the cap is in the product dispensing position thereof.

The body closing position of the cap may be determined by cooperation of the crown of the cap with the mouth rim of the container body and the product dispensing position be determined by at least one projection extending laterally from the skirt and engageable with an abutment formed on the container body. The projection may be formed on the interior of the skirt and the abutment be formed by a shoulder extending outwards from the container body.

The crown of the cap may be provided with a plug portion arranged to effect sealing engagement with the open end of the container body when the cap is in the body closing position thereof. The open end of the container body may be inturned to form a rim for cooperation with the plug portion of the cap. The projection may comprise an annular rib.

In an alternative embodiment of the invention the body closing position of the cap may be determined by cooperation of an extension of the crown of the cap which extends beyond the exterior of the skirt and the product dispensing position be determined by at least one projection extending laterally from the skirt and engageable with an abutment formed on the container body. The projection may extend from the exterior of the skirt and the abutment be formed interiorly of the container. The abutment may be formed by the underside of an inturned curl defining the mouth of the container body.

The cap may be made of resilient material and in one embodiment thereof may be of moulded organic thermoplastic material, for example of low density polyethylene. The container body may be made of extruded aluminum.

In order that the invention may be clearly understood some embodiment thereof will now be described, by way of example, with reference to the accompanying drawings, in which:

FIGURE 1 is a broken elevation, partly in section, of a dispensing contatiner according to the invention,

FIGURE 2 is an elevation of the upper part of the container looking in the direction of arrow II, FIGURE 1,

FIGURE 3 is an elevation, partly in section, of the upper part of the contatiner with the cap in the dispensing position,

FIGURE 4 to 6 are partial views of alternative embodiments of dispensing containers according to the invention,

FIGURE 7 is a broken elevation, partly in section, of a further alternative dispensing container according to the invention, and

FIGURE 8 is an elevation of the upper part of the container looking in the direction of arrow VIII, FIGURE 7.

In the drawings like or similar parts are indicated by like reference numerals.

Referring to FIGURES 1 to 3, the dispensing container comprises an open-topped body made of any suitable material, for example extruded aluminum. The body has an upper portion **1** and a lower portion **2** connected by a necked portion **3** of lesser cross-section and a cap is fitted over the upper portion **1** to be slidable axially relative to the container and constrained for axial movement between a body closing and product dispensing position thereof.

The skirt **4** of the cap is provided with at least one internal projection engageable with the neck portion **3** to retain the cap in position on the body. As shown in the drawing the projection is an annular projection **5** but if desired a plurality of projections may be spaced apart around the interior of the skirt. The cap is preferably made of resilient material and as shown in the drawings the cap is made of moulded organic synthetic thermoplastic material, for example of low density polyethylene. If, however, the cap is made of sheet metal the projections **5** may be ribs pressed inwards from the skirt or may be formed by inturning the edge of the skirt for example to form an inturned curl.

The crown **6** of the cap covers the open end **7** of the body and the projection **5** by cooperation with an upper abutment or shoulder **8** determines the extent of axial movement of the cap relative to the body to the product dispensing position of the cap.

The skirt **4** is provided with a dispensing opening **10**. When the cap is in the body closing position thereof, FIGURE 1, that is with the projection **5** adjacent to a lower shoulder **9**, the opening **10** is obturated by the sides of the container body. When the cap is moved axially away from the lower shoulder **9** to the product dispensing position thereof the opening **10** is exposed, FIGURE 3, to permit the contents of the container to be dispensed through the opening **10**.

The crown **6** of the cap is provided with a plug portion **11** arranged to effect sealing engagement with the open end **7** of the container body when the projection **5** is adjacent the lower shoulder **9** and the open end of the body is provided with an inturned rim **12** for cooperation with the plug portion **11**. The plug portion **11** by cooperation **11** by cooperation with the rim **12** prevents the ingress of dirt and other extraneous matter into the container.

FIGURES 4 to 6 illustrate alternative embodiments of the dispensing container, the embodiment of FIGURE 4 being similar to that described above with reference to FIGURES 1 to 3 except that the neck portion **3** and shoulder **9** are omitted and the sides of the body extend downwards from the shoulder abutment **8**.

In the embodiments of the container illustrated in FIGURES 5 and 6 the cap is slidable inside the container body and the body closing position of the cap is determined by cooperation of an extension **13** of the crown **6** of the cap, which extends beyond the exterior of the skirt **4**, and the rim **12** of the container body. In FIGURE 5 the product dispensing position of the cap is determined by engagement of a projection **5** on the exterior of skirt **4** with an internal abutment or shoulder **8** on the container body, and in FIGURE 6 the product dispensing position of the cap is determined by engagement of a projection **5** on the exterior of the skirt **4** with the underside of an inturned curl **14** which defines the mouth of the container body.

In the alternative embodiment of the container illustrated in FIGURES 7 and 8 the container body is made of tinplate or aluminum and is provided with annular processes **8***a*, **9***a* which receive the projection **5** and locate

and retain the cap in the product dispensing and body closing positions thesreof respectively. In this embodiment the portion 3*a* has the same cross-sectional dimension as the lower portion 2. To facilitate the axial movement of the cap from one recess to the other the head of the cap is provided with a finger-gripping portion 15 which, as shown in FIGURES 7 and 8, consists of an enlargement which tapers from the crown 6 to the skirt 4 and is provided with annular grooves 16. The plug 11 cooperates with the recessed portion 8*a* when the cap is in the body closing position thereof and projection 5 is located in recess 9*a*.

A dispensing container as herein described consists of only two components, is simple to operate, is economical to produce, has the advantage that it is not necessary to cut or form a hole in the side of the container body, and no orientation of the components is necessary during assembly thereof. It will be understood that the shape and size of the dispensing opening 10 can be varied, as desired, according to the shape and size of the contents to be dispensed from the container.

I claim:

1. A dispensing container comprising an open-topped container body and a cap; the container body including a sidewall portion and an end wall portion and being devoid of a neck of a substantially reduced cross-section as compared to the cross-section of the container body; said cap including an end wall portion and a depending skirt portion; said skirt portion having a dispensing opening therein; said container sidewall portion including at least first means dsposed about the periphery thereof for engaging a cooperating second means on said cap skirt portion and constraining said cap in axial movement adjacent container body sidewalls between a body closing and a product dispensing position thereof wherein the body closing and product dispensing positions of the cap are determined by said first and second means; which means include a projection extending laterally from the interior of the cap and annular recesses formed in the container body to locate and retain the cap in said positions thereof.

2. A dispensing container according to claim 1, wherein the cap is provided with an enlarged head portion adapted to facilitate movement of the cap between said positions thereof.

3. A dispensing container according to claim 2, wherein said enlarged portion tapers from the crown to the skirt of the cap and is provided with annular grooves.

4. A dispensing container according to claim 1, wherein the crown of the cap is provided with a plug portion arranged to effect sealing engagement with open end of the the container body when the cap is in the body closing position thereof.

5. A dispensing container according to claim 1 wherein the cap is made of resilient material.

6. A dispensing container according to claim 5, wherein the cap is made of moulded organic synthetic thermoplastic material, for example of low density polyethylene.

7. A dispensing container according to claim 1 wherein the container body is made of extruded aluminum.

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ROBERT B. REEVES, *Primary Examiner.*

STANLEY H. TOLLBERG, ROBERT B. REEVES, *Examiners.*