June 18, 1940. L. H. PRIDDY 2,204,821

DISPENSING CONTAINER FOR PILLS AND THE LIKE

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Fig. 1.

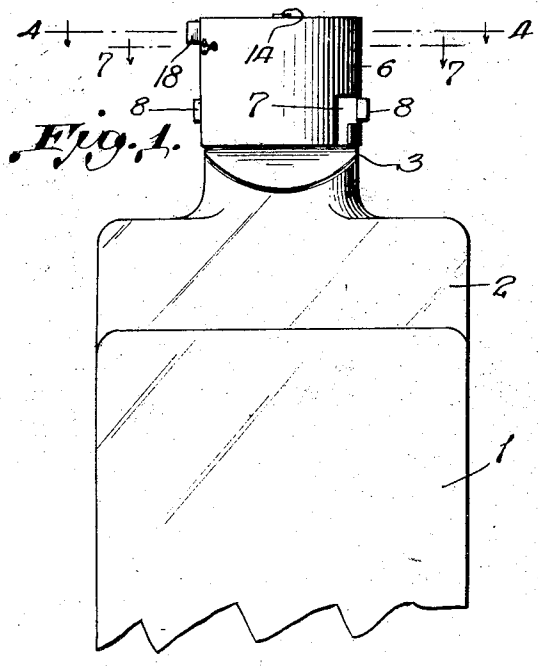


Fig. 2.

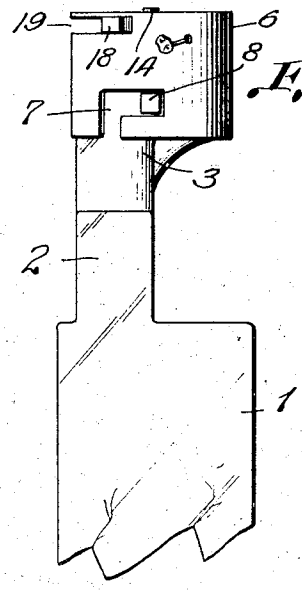


Fig. 3.

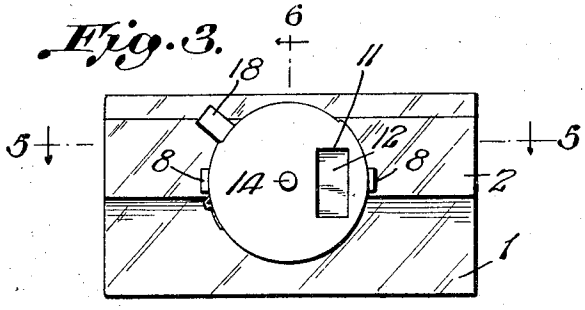


Fig. 4.

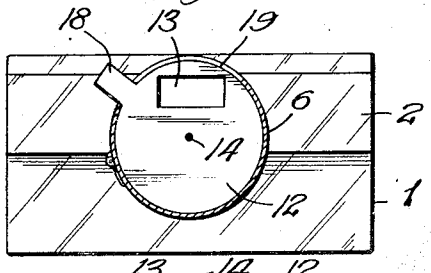


Fig. 5.

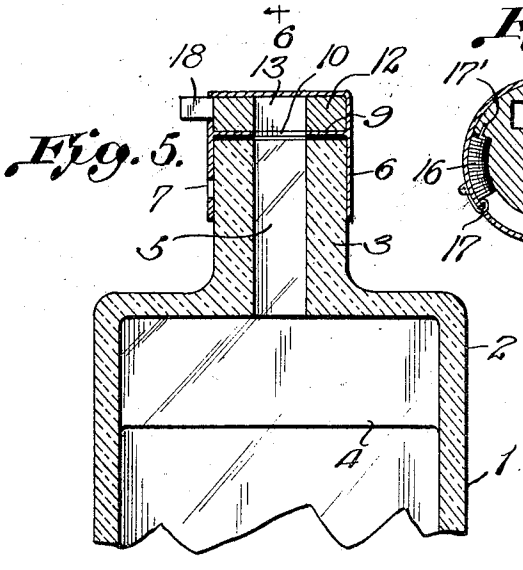


Fig. 7.

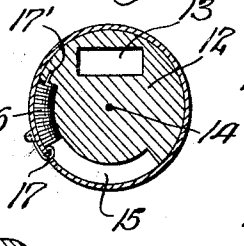
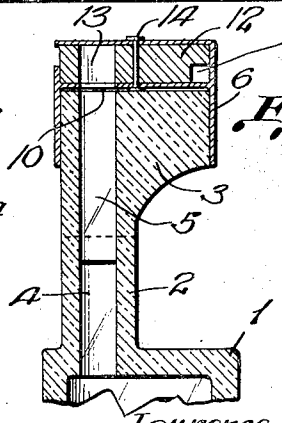


Fig. 6.



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Fig. 8.

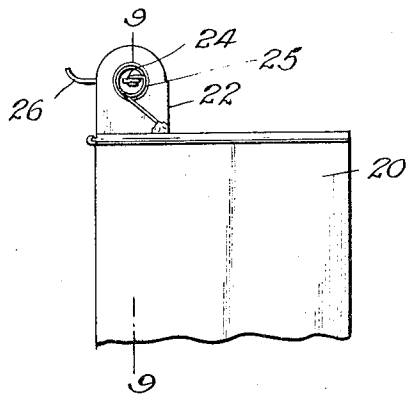


Fig. 11.

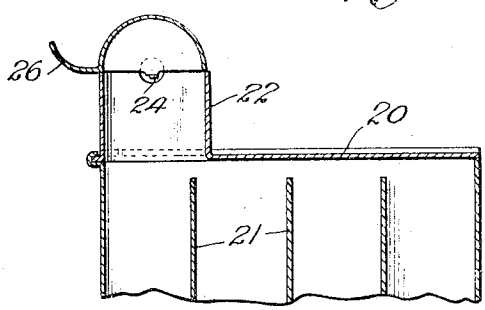


Fig. 10.

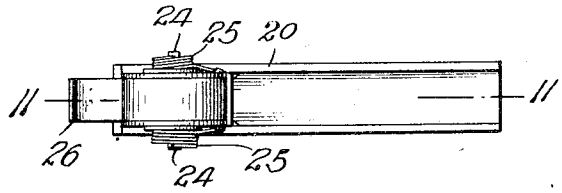


Fig. 9.

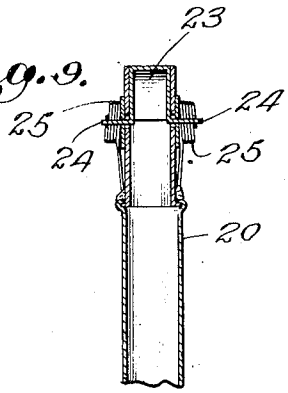


Fig. 13.

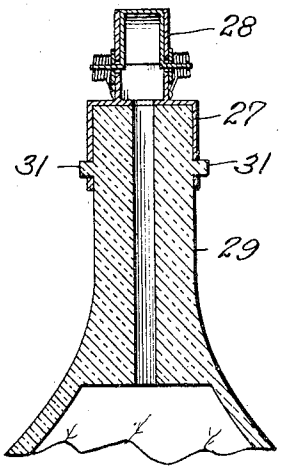
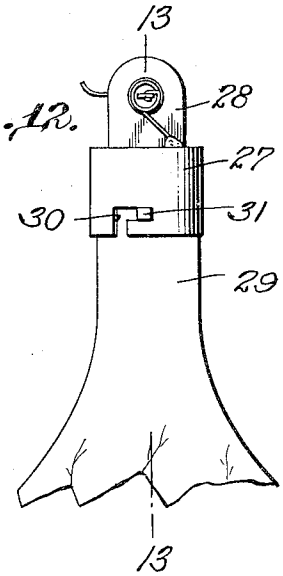


Fig. 12.



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UNITED STATES PATENT OFFICE

2,204,821

DISPENSING CONTAINER FOR PILLS AND THE LIKE

Laurence H. Priddy, Cullison, Kans.

Application August 12, 1937, Serial No. 158,808

1 Claim. (Cl. 221—62)

This invention relates to a dispensing container designed for delivering pills, tablets or the like one at a time or in any predetermined number, one of the objects being to provide the container with a novel form of dispensing cap which can be removably mounted and which serves normally to close the container but, when actuated, will serve as a means for delivering the pill or the like from the inverted container.

A further object is to provide a device of this character applicable either to bottles or boxes, which is simple in construction, formed of few parts, and will not readily get out of order.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings

Figure 1 is a front elevation of a portion of a bottle equipped with the present improvement.

Figure 2 is a side elevation thereof.

Figure 3 is a top plan view.

Figure 4 is a section on line 4—4, Figure 1.

Figure 5 is a section on line 5—5, Figure 3.

Figure 6 is a section on line 6—6, Figure 3.

Figure 7 is a section on line 7—7, Figure 1.

Figure 8 is a side elevation of a box equipped with a modified form of dispensing cap.

Figure 9 is a section on line 9—9, Figure 8.

Figure 10 is a plan view.

Figure 11 is a section on line 11—11, Figure 10.

Figure 12 is an elevation of a portion of a bottle equipped with a dispenser of the type shown in Figures 8 to 11 inclusive.

Figure 13 is a section on line 13—13, Figure 12.

Referring to the figures by characters of reference 1 designates a bottle or similar container having a flat portion of reduced thickness extending upwardly therefrom as shown at 2 to form the base of a cylindrical neck 3. A transverse groove 4 is formed in the base 2 and extending from this groove and longitudinally through the neck 3 is a passage 5 so shaped as to permit the passage therethrough of only one pill or other article to be dispensed. The opening can be angular for permitting the passage therethrough of a lozenger moving edgewise or it can be made round to permit the passage therethrough of a round pill. In any case the groove 4 is of the same width as the opening 5 so that when the container 1 is inverted, some of the contents thereof will gravitate into this groove and become arranged therein in position where they can move one at a time into the opening 5. It will be noted that the base portion 2 is offset toward the back of the bottle so that the cylindrical neck 3 formed at the top of this base can thus overhang a portion of the bottle and still remain in the area defined by the body portion of the bottle. Therefore it is possible to pack these bottles in containers or the like without interference from the overhanging portion of the neck 3.

A cylindrical cap 6 fits snugly around the neck 3 and is formed with one or more bayonet slots 7 for engaging studs 8 extending laterally from the neck. These are so located that when the cap is fitted snugly on the end of the neck, it can be turned into engagement with the studs so as to hold the cap against accidental removal.

The cap is formed with a partition 9 between its ends adapted to rest on the end of the neck and having an opening 10 which registers with the passage 5 when the cap is properly seated on the neck. Another opening 11 similar to the opening 10 is provided in the top of the cap as shown in Figure 3 but is located out of alinement with the opening 10.

Mounted for rotation in the cap between the closed outer end thereof and the partition 9 is a disk 12 having an opening 13 of the same proportions as the openings 10 and 11 and adapted normally to register with the opening 10. This disk is pivotally mounted at its center, as shown at 14 and it has a peripheral groove 15 in which is seated a spring 16. One end of the spring is secured to the wall of the cap as shown at 17 while the other end is connected to disk 12 as shown at 17'. This spring serves to hold the disk normally positioned with opening 13 in register with opening 10.

A finger piece 18 is extended radially from the disk 12 through a slot 19 in the wall of the cap and constitutes a means whereby the disk can be moved away from normal position and against the action of the spring 16.

As before stated disk 12 is positioned normally with the opening 13 in register with the opening 10 in passage 5. Therefore when the container is inverted, the pills, lozengers or other articles contained therein, will flow into the channel or groove 4 and there be caused to line up in a row whereby one of the articles will be

fed properly through the passage 5 and gravitate therealong through opening 10 and into the opening in disk 12. While the container is thus inverted the user shifts the finger piece 18 so as to cause the disk 12 to move about its axis 14 and to transfer the opening 13 to a position where it will register with the outlet opening 11. Thus the article contained in the disk will be delivered through said opening into the hand of the user and, when the finger piece 18 is released, the spring 16 which was placed under tension during the operation just described, will pull the disk back to its normal position, it being understood that this movement of the disk is limited by contact of the finger piece 18 with the respective ends of the slot 19.

Instead of providing a dispensing device such as shown in Figures 1 to 7 inclusive, a modified construction illustrated in Figures 8 to 13 may be used. In Figures 8 to 11 has been shown a box 20 provided with parallel partitions 21 spaced from the top of the box or container 20. At one end of the top of this container is located a hollow extension 22 constituting a neck the interior of which is proportioned to receive the articles to be dispensed. In this neck there is mounted a semi-cylindrical dispensing scoop 23 having trunnions 24 which are journalled in opposed sides of the neck. Springs 25 are mounted on these trunnions and attached at one end to them and at their other ends to the neck and serve normally to hold the scoop in an inverted position where it closes the end of the neck. A finger piece 26 is extended from one end of the scoop and normally bears against the neck so as to hold the scoop against movement out of normal position.

When it is desired to dispense articles from this modified form of device, the said device is inverted so that its contents will gravitate toward the neck and some of them into the neck and the dispensing scoop 23. While it is in this inverted position the operator presses back on the finger piece 26. This will cause the dispensing scoop to rotate against the action of its spring and at the same time bring to the open end of the neck the article or articles contained within the dispensing scoop, so that they will fall into the hand of the users.

The same kind of dispensing means can be mounted on a bottle by utilizing a cylindrical base 27 from which a neck 28 corresponding with the neck portion 22 extends, this base being detachably joined to the neck 29 of the bottle by bayonet slots 30 engaging studs 31. The operation of this device is the same as that described in connection with Figures 8 to 11.

It will be noted that in both of the forms shown in Figures 8 and 13 inclusive the delivery scoop or closure holds exactly one-half the amount to be delivered when said closure is opened. This is due to the fact that during the opening of the scoop it cuts through the material accumulating in the neck or extension so that it will deliver not only the material which filled the scoop when inverted but also that portion of the material which is below the scoop as it cuts through the accumulated material in the neck or extension. Consequently the scoop although it can be made quite small and capable of holding for example a one-half teaspoonful of powder or the like, will, in fact, deliver twice that amount.

It is to be understood that various modifications of this invention can be made to meet the requirements.

What is claimed is:

In a dispensing device, a container having a neck-like extension open at its outer end, a normally inverted semi-cylindrical scoop fulcrumed within the extension and constituting means for holding one-half of a portion to be dispensed, yielding means for holding the scoop normally in position to close the extension, and means for swinging the scoop about an axis extending transversely of the extension to move the scoop into open position and to cause the scoop to cut through material accumulated within the extension, thereby to deliver from said extension an amount of material substantially equal to the amount contained within the scoop.

LAURENCE H. PRIDDY.