

Sept. 3, 1957

A. H. DROBIS
DISPENSING CONTAINER

2,805,000

Filed July 28, 1954

2 Sheets-Sheet 1

Fig. 1

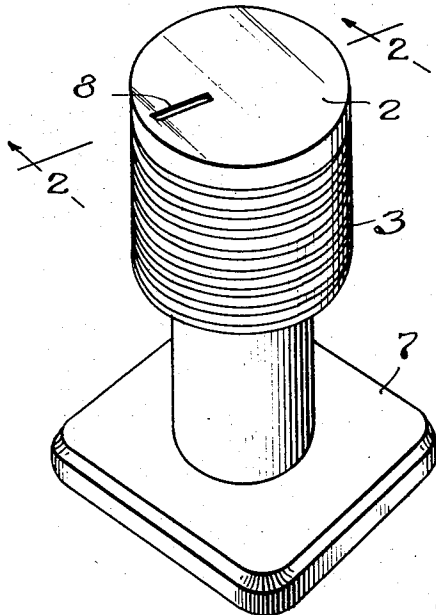


Fig. 4

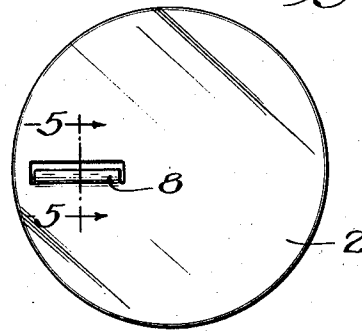


Fig. 2

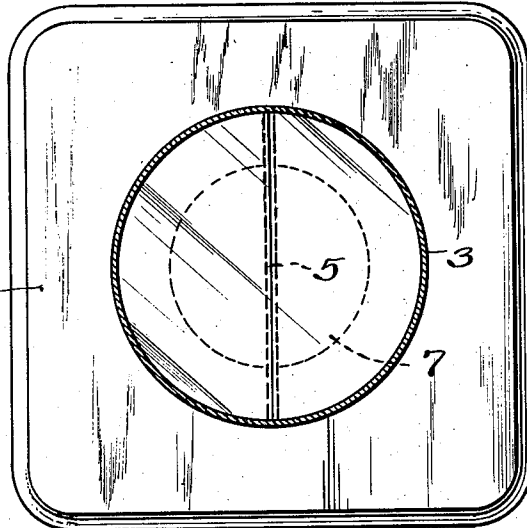
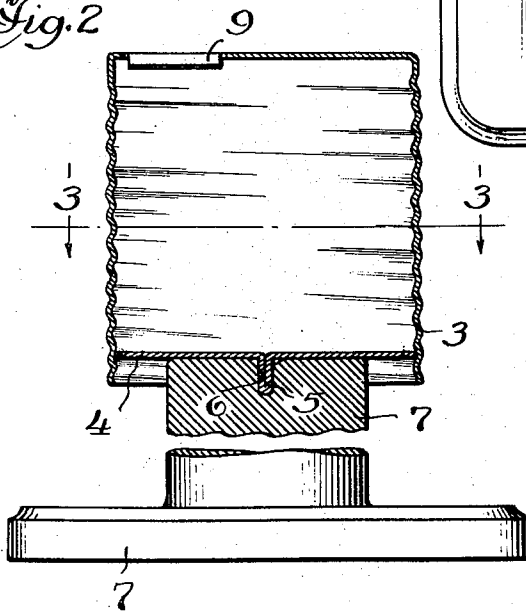


Fig. 3

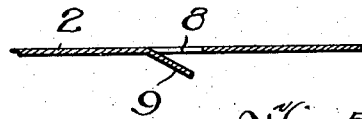


Fig. 5

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Fig. 6

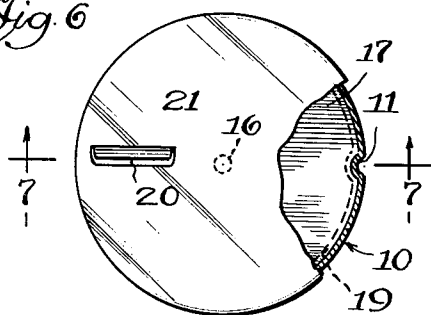


Fig. 8

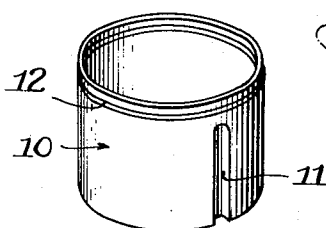


Fig. 9

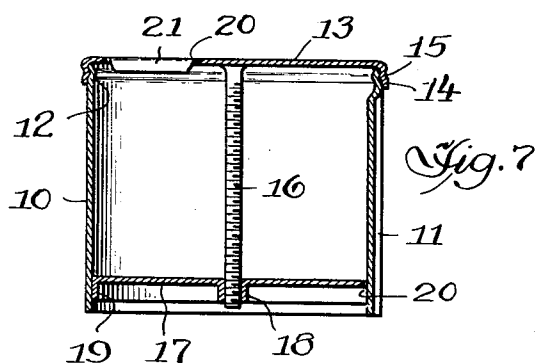
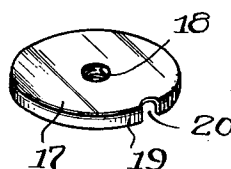
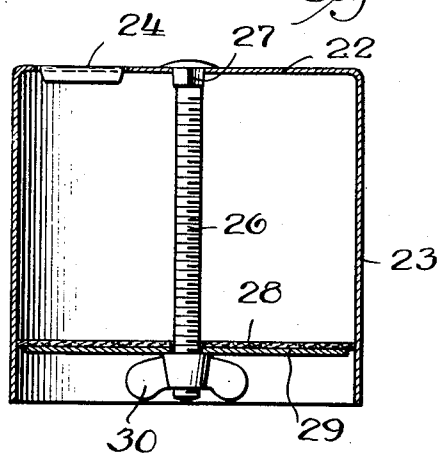


Fig. 10



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DISPENSING CONTAINER

August H. Drobis, Chicago, Ill., assignor of fifty percent to Blanche Seelmann and Edward Seelmann, doing business as Seelmann & Company, a partnership

Application July 28, 1954, Serial No. 446,215

2 Claims. (Cl. 222—205)

This invention relates to a dispensing container provided with an open slot through which pasty contents are dispensed by pressure caused by relative movement between the body of the container and a disc which serves as a closure for one end of the can.

The container may be made of metal or any suitable plastic material. The open slot is sealed with any suitable tape which may be readily removed before the first use of the dispenser. The contents may be in paste, liquid, or powder form, but the device is particularly advantageous in connection with the dispensing of pasty materials, such as printing ink, which have a tendency to skin upon atmospheric exposure and must be used at a certain consistency.

The container is provided with a flat working surface adjacent its slot so that if the material dispensed through the slot is thickened to an undesirable extent the material may be mixed on the flat working surface until the proper consistency is obtained. The flat working surface provides an additional advantage in connection with printing inks in that all the ink may be scraped off the working surface. Printer's ink knives are provided with a flat end, and therefore cannot scrape all the ink off a concave surface.

The movement between the two parts of the container is induced by rotation of one part relative to another. In some embodiments of the invention the container is mounted on a stand to facilitate this rotation. The container may be removed from the stand and replaced by another at any time so that only one stand is required for use with a plurality of different containers which may contain inks of different colors. The containers are inexpensive and are discarded when empty.

The structure by means of which the above and other advantages of the invention are attained will be described in detail in the following specification, taken in conjunction with the accompanying drawings, showing three preferred illustrative embodiments of the invention, in which:

Fig. 1 is a perspective view of one embodiment of the dispensing container mounted on a stand;

Fig. 2 is a view, partly in section and partly in elevation, taken generally along the line 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view, taken along the line 3—3 of Fig. 2;

Fig. 4 is a top plan view of the dispensing container;

Fig. 5 is a cross-sectional view, taken along the line 5—5 of Fig. 4;

Fig. 6 is a top plan view of another embodiment of the dispensing container with a portion broken away to show the structure of the side of the container;

Fig. 7 is a cross-sectional view, taken along the line 7—7 of Fig. 6;

Fig. 8 is a perspective view of the container body;

Fig. 9 is a perspective view of the follower disc; and

Fig. 10 is a cross-sectional view of another embodiment of the dispensing container.

Referring to the drawings, the container has a flat top wall 2 and a cylindrical side wall 3 open at the bottom.

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The side wall 3 is corrugated in the form of a thread, and a bottom disc 4 is threaded into the container to form a closure for the open end of the container. In the illustration the side wall acts as a thread, but in containers made of plastic material the outer surface of the side wall is smooth and the thread is formed on the inner surface only of the side wall either by molding in the desired shape or by cutting a thread in the wall after the container is molded. It is possible also to form the thread on the inner surface only of a metal container by cutting the thread if the side wall has sufficient thickness to permit thread cutting, but the form illustrated is preferred because of its inexpensiveness.

The bottom member 4 is provided with a vertically depending rib, such as 5, Fig. 2, to facilitate rotation of the bottom disc in the container body. The rib 5 may be grasped between the fingers to be manually rotated, or may be seated in a recess 6 in a base member 7. When rib 5 is positioned in recess 6, as shown in Fig. 3, the container body may be rotated to force the bottom disc 4 upwardly into the container body to exert pressure on the contents of the container.

The top 2 is provided with a slot 8 through which the contents are forced as the base disc is moved towards the top of the container. This slot is sealed with a suitable adhesive strip when the container is filled so that the contents cannot ooze therethrough. When the container is to be used, the adhesive strip is removed. Slot 8 may be anywhere in the top, but is preferably along a radial line and is spaced from the center. The slot is preferably provided with a downturned lip 9 (Fig. 3) which extends forwardly in the direction in which the container body is rotated so that it acts as a scraper to scoop out the contents and guide the contents on to the top surface 2. If the contents, such as printing ink, is too viscous, the flat surface 2 may be used as a work surface to mix the ink with additional ink that has more fluidity, until the desired consistency is obtained. This feature is particularly important in connection with printing ink because generally the slot 8 is not sealed after the adhesive strip is removed, and if the container is not used for a considerable length of time, the exposure of the ink immediately adjacent the slot to the atmosphere may cause it to thicken to some extent. When the ink is dispensed through the slot portion which has been exposed to the atmosphere is the first portion dispensed, and the ability to mix ink that has not been so exposed makes it possible for all the ink to be used.

In the embodiment of Figs. 6 to 9, the container body 10 is in the form of a tubular member open at both ends. A vertical rib 11 indented in the body extends from the bottom to a point just below the top edge. A circumferential rib 12 extends around the body adjacent the top edge. A top closure 13 is provided with a depending skirt 14 having a circumferential rib 15 fitting the depression of rib 12 so that the top may be freely rotated relative to body 10. A threaded stud 16 is welded or riveted centrally to the underside of top 13 and extends downwardly to the lower edge of the container.

A bottom disc 17 is provided with a central boss 18 threaded on stud 16. Preferably disc 17 has a circumferential flange 19 to give it additional rigidity. A peripheral notch 20 in disc 17 fits around rib 11 to prevent rotation of the disc when top 13 is rotated on the body. The interengagement of the threads of stud 16 and boss 18 causes disc 17 to move upwardly towards top 13 as the top is rotated. As in the previous embodiment, top 13 is provided with a slot 20 which may have a downwardly extending lip 21.

In Fig. 10 the top 22 is integral with the side wall 23. Top 22 is provided with a slot 24 having a downwardly extending lip 25. A threaded stud 26 is riveted or welded

centrally to top 22 and depends to the bottom of the container. Stud 26 may be provided with a non-circular head 27 which fits into a similarly shaped aperture in top 22 snugly enough to prevent accidental displacement therefrom. A paper or fiber disc 28 which fits snugly against the side walls 23, preferably reinforced by a slightly smaller metal or plastic disc 29, is positioned on stud 26 at the bottom of the container. A wing nut 30 threaded on stud 26 is rotatable to force the disc towards top 22 to dispense the contents through slot 24. The container of Fig. 10 may be mounted on a stand similar to stand 7 having a recess shaped to fit wing nut 30.

In each embodiment the container is designed so that it has no projecting parts and may be packed and shipped without waste of space. The containers are inexpensive and no messy refilling is necessary.

Although I have described three embodiments of my invention in considerable detail, it will be understood that the description is intended to be illustrative, rather than restrictive, as many details of the invention may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I not desire to be restricted to the exact structure described.

I claim:

1. In combination, a dispensing container and a base member, said container comprising a flat top member provided with a slot through which the contents of said container is dispensed, a side wall integral with said top member, said side wall having threads on its inner surface, a bottom closure member having its periphery engaging said threads, and a rib projecting downwardly from said bottom closure member, said base member having an upwardly extending portion smaller in any horizontal dimension than the diameter of said bottom closure member, the upper surface of said upwardly extending portion

having a slot engageable with said downwardly projecting rib to facilitate relative rotation between said bottom closure member and said threaded surface, whereby said bottom closure is moved vertically towards said top member to force the contents of said container through said slot.

2. A container for dispensing pasty material contained therein, said container comprising a top member provided with a slot through which the contents of said container is dispensed, said top having a flat working surface adjacent said slot whereon said contents dispensed through said slot may be mixed to uniform consistency, said flat working surface being substantially coextensive in area with the horizontal cross sectional area of said container, a cylindrical side wall extending downwardly from said top member, a bottom closure member fitting with said cylindrical side wall, a separate base member for supporting said container, and means on said bottom closure member interengageable with said base member for moving said bottom closure member upwardly towards said top member to force said contents through said slot.

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