Aug. 12, 1958 M. J. LA PADURA 2,847,119

DISPENSING CONTAINER

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FIG. 1

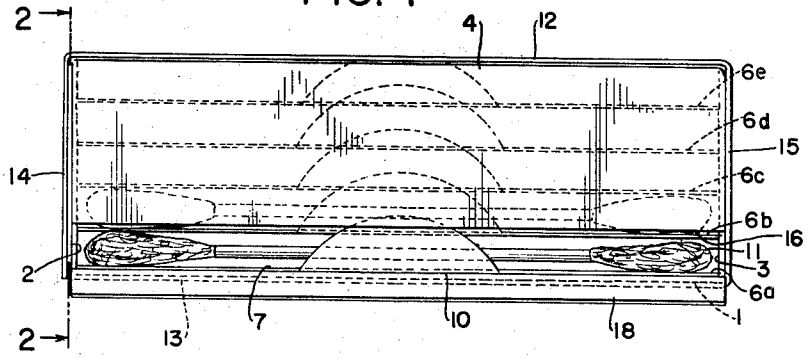


FIG. 2

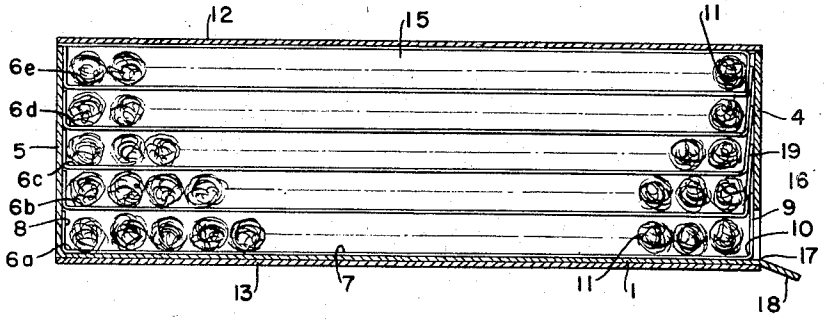
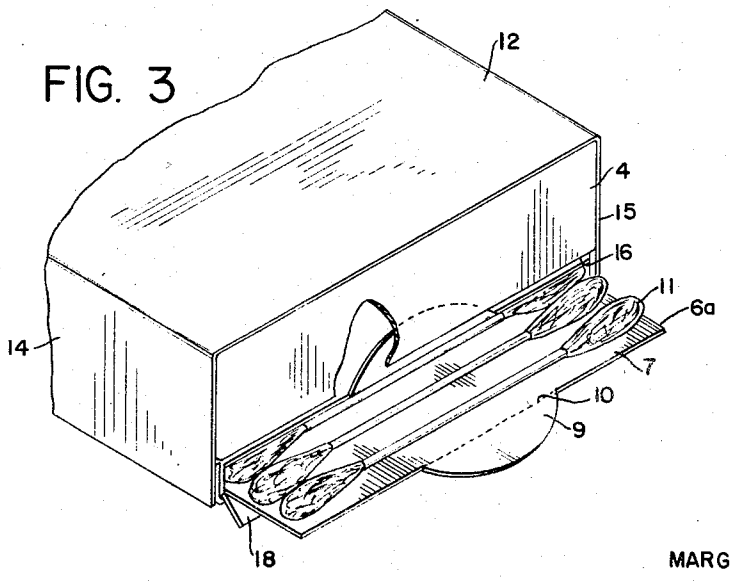


FIG. 3



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DISPENSING CONTAINER

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1 Claim. (Cl. 206—56)

This invention relates to dispensing containers and more particularly to improvements in containers for dispensing, one at a time, a plurality of elongated articles.

Many types of articles, intended to be used one at a time, are sold to the consumer in a box or container which contains a large number of the articles. A good example of such an article is the sterilized cotton swab used for hygienic and cosmetic purposes in the home. These are commonly sold in small boxes containing a number of layers of packed swabs. When packed in a conventional box they are likely to become contaminated after the box has been open for some time and a number of the swabs have been removed. Moreover, it is easy for the swabs to be spilled out of a conventional box when the lid or other closure is inadvertently left open and the box is dropped or knocked over.

I have invented an improved dispensing container for elongated articles such as cotton swabs. In my new container the major openings may be permanently or semi-permanently closed after the articles have been packed into it, and the new container provided by my invention will dispense the articles simply, quickly, and conveniently one at a time. The articles remaining in the box cannot become disordered and are not normally exposed to handling and contamination prior to their intentional use.

According to my invention, I provide a box having at least a bottom and four walls. Within the box there are a plurality of article-bearing trays in stacked relation. In one of the walls of the box I make an aperture through which the lowermost one of the stacked trays may be partially or wholly withdrawn from the box. Any suitable means may be provided for permanently or semi-permanently closing the box after the article-bearing trays and their contents have been inserted therein. Merely by pulling the lowermost tray out through the aperture in the wall of the box by a small amount one of the articles —or more, if desired—in the tray is presented for use. The tray is then pushed back into the box and the articles in all of the trays remain clean and well ordered and are protected against spillage. When all the articles in the lowermost tray have been used the tray itself is removed and disposed of, whereupon the next lowermost tray in the stack drops to the bottom of the box and the articles contained in that tray are then immediately accessible in the same way. All of the articles contained in the box may be removed one or more at a time as needed by repeating this simple procedure.

To the end that my invention may be completely understood, I describe in the following specification and illustrate in the accompanying drawings an embodiment of the invention which is especially adapted to contain and dispense a particular article. The modifications necessary to embody the invention in dispensing containers for other articles will readily occur to those skilled in the art. In the drawings

Fig. 1 is a front elevation of a dispensing container;

Fig. 2 is a sectional view taken along the line 2—2 of Fig. 1; and

Fig. 3 is a perspective view partly cut away of the container of Fig. 1 which illustrates the operation of the container.

The preferred embodiment of my invention illustrated in the accompanying drawings comprises a box formed of conventional paperboard and having a bottom **1**, a pair of upright side walls **2** and **3**, and front and rear end walls **4** and **5**, respectively. A plurality of article-bearing paperboard trays, indicated by the reference numerals **6***a–e*, are positioned in the box in stacked relation. The tray **6***a* is typical of all the trays and comprises a bottom **7**, a rear end wall **8**, and a pull tab **9**, the latter being hinged to the tray bottom **7** along the front edge thereof at **10**. As shown in the drawing, a single layer of cotton swabs is arranged in each tray with the individual swabs **11** laid transversely of the tray.

In this embodiment I also provide an open-end sleeve comprising a top **12**, a bottom **13**, and opposed side walls **14** and **15**, respectively. The dimensions of the sleeve are such that it may be slid endwise over the box with a snug fit, thereby securely closing the top of the box after the swab-laden trays **6***a–e* have been packed inside the box.

An aperture is formed in the front wall **4** of the box through which the lowermost tray of the stack may be withdrawn. This aperture is formed by a cut line **16** through the front wall **4** along a horizontal line at a distance above the bottom **1** of the box slightly greater than the height of one tray. The portion of the end wall **4** below the cut line **16** is also severed from the side walls **2** and **3** of the box, but remains hingedly connected to the bottom of the box along the front edge **17** thereof. This forms a door **18** which may be easily opened outwardly by inserting a fingernail through the cut line **16**. The door will normally be held closed by frictional engagement between the lower edge of the remaining portion of wall **4** and the upper edge of the door if the cut line is made reasonably fine.

The dimensions of the pull tab **9** on the tray are made great enough so that the tab of the lowermost tray is overlapped, as at **19** in Fig. 2, by the lower margin of the remaining portion of the front wall **4** when the tab is in the upright position. It will be understood that the relatively thin paperboard material of which the trays are made is flexible enough so that the tab may be easily bent and pulled from behind the wall **4** when one wishes to withdraw the tray or to restore the tab behind the wall when the door of the box is to be closed. Thus, the pull tab also serves to prevent the swabs from spilling out if the box is inadvertently tipped while the door is open.

The operation of my new dispensing container is clearly illustrated in Fig. 3. The door **18** is opened as previously explained and the tab **9** of the lowermost tray is pulled free from its overlapped engagement with the lower margin of the front wall **4** of the box. Upon pulling the tab the entire layer of swabs in the lowermost tray is carried forward and the foremost swab is presented outside the box so that it may be conveniently grasped by the central portion of the stick without touching the sterilized cotton tips. Then slight rearward pressure on the tab will return the tray and the remaining swabs to the box, whereupon the door **18** may be snapped closed to keep the remaining swabs in the box neatly ordered and free from ordinary sources of contamination.

When all of the swabs in the lowermost tray **6***a* have been used the tray is pulled all the way out of the box and discarded, whereupon the remaining trays **6***b–e* will drop to the bottom of the box so that the tray **6***b* then becomes the lowermost tray. This procedure presents

each and every swab for use in its turn while preserving the sterilization of the unused swabs.

Having described in detail one embodiment of my invention, it is to be understood that the scope of the invention is not intended to be limited to the details set forth. The invention is defined in the following claim.

I claim:

A dispensing container for sanitary cotton tipped swabs which container comprises a box having a bottom, front and rear side walls, the height of said walls being substantially an integral multiple of the diameter of the swabs to be dispensed, said front wall having a dispensing aperture in the lowermost portion thereof, said aperture being formed by vertical cuts adjacent the junctures of the front and side walls and by a horizontal cut connecting the vertical cuts at a height above the box bottom substantially equal to the diameter of the swabs to be dispensed, a door for said aperture, said door being formed by the portion of said front wall cut out to form the aperture and hinged to said bottom along a fold line, a plurality of article trays in stacked relation in said box, each tray comprising a bottom and front and rear walls, said front wall of each tray being hingedly connected to the bottom of said tray and having a height over at least a portion of its length which is greater than the height of the aperture and which is releasably retained in an upright position by engagement of the upper margin thereof with the inner surface of the front end wall of said box, and closure means for the top of said box.

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