Oct. 13, 1953 J F. PEAL 2,655,289

SANITARY CREAM DISPENSER

Filed Dec. 22, 1950 3 Sheets-Sheet 1

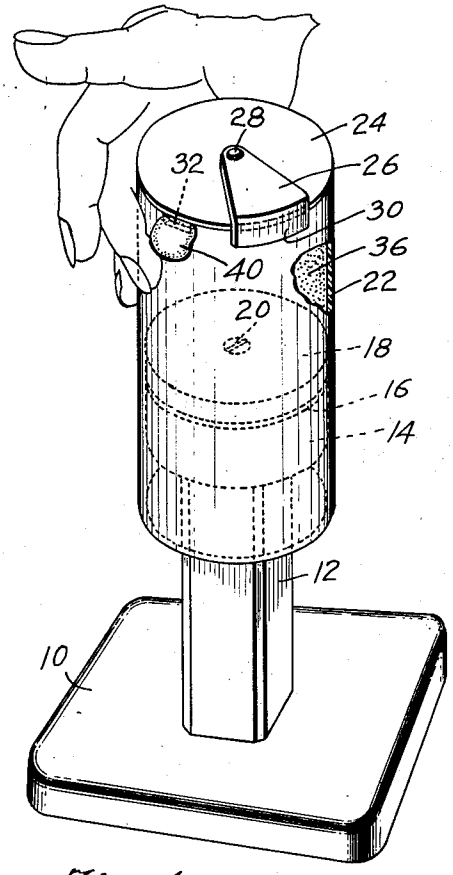


Fig. 1.

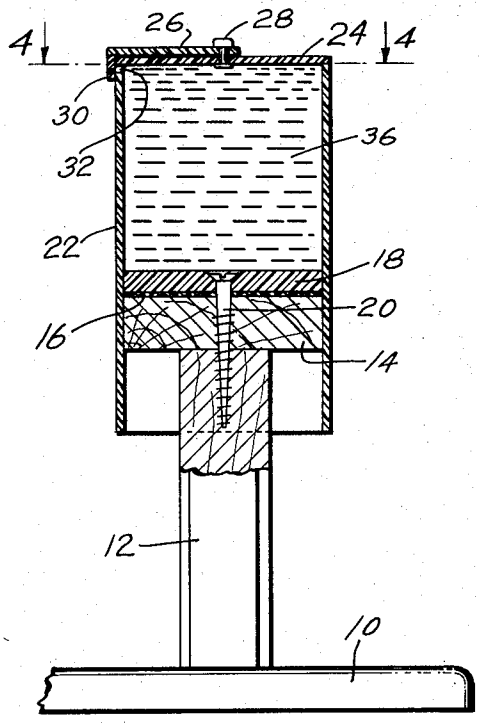


Fig. 3.

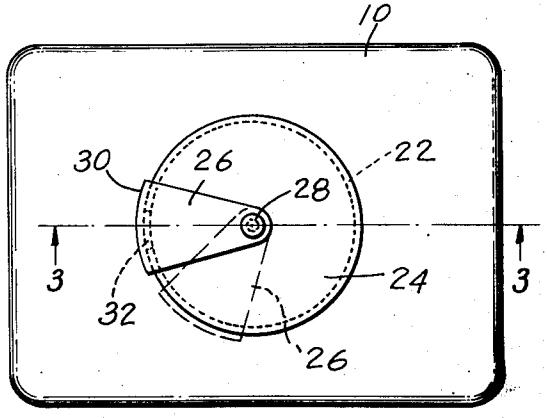


Fig. 2.

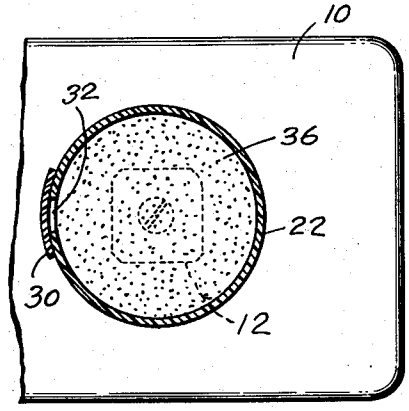


Fig. 4.

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SANITARY CREAM DISPENSER

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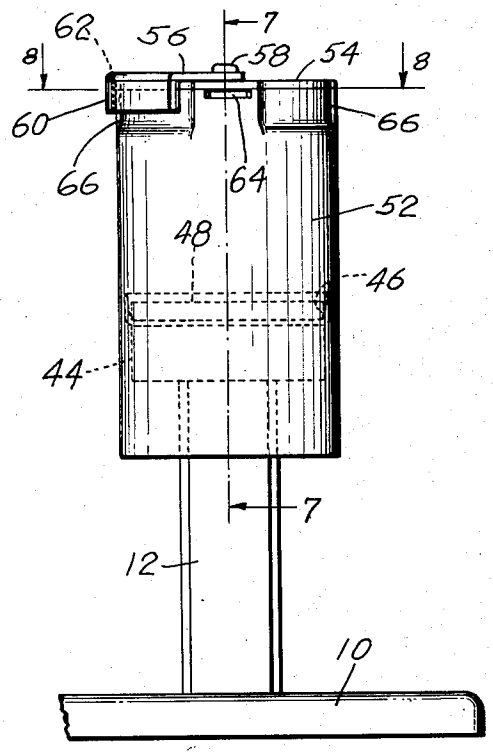


Fig. 5.

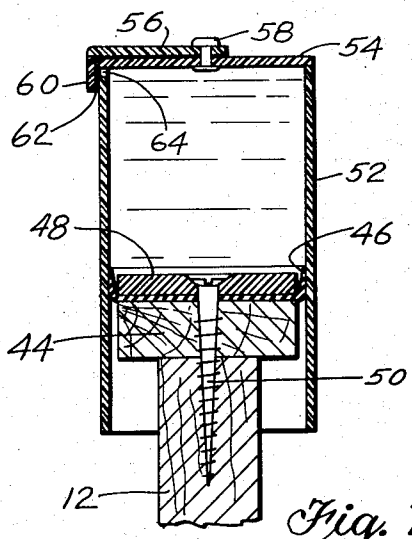


Fig. 7.

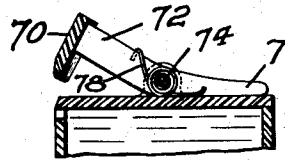


Fig. 9.

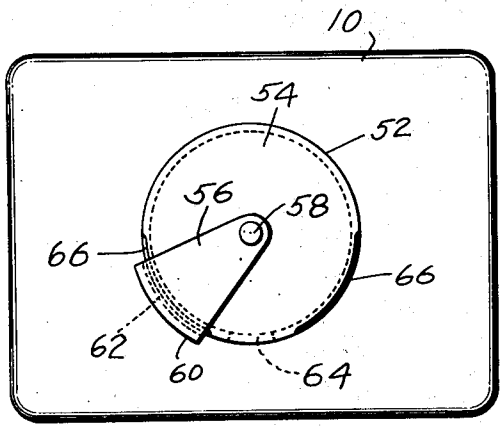


Fig. 6.

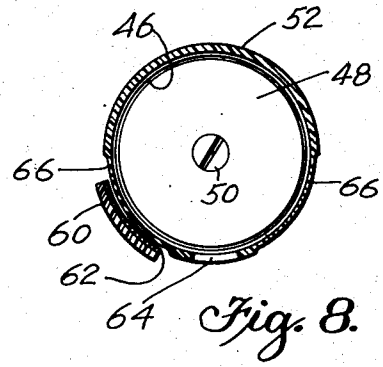


Fig. 8.

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SANITARY CREAM DISPENSER

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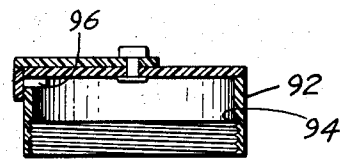


Fig. 11.

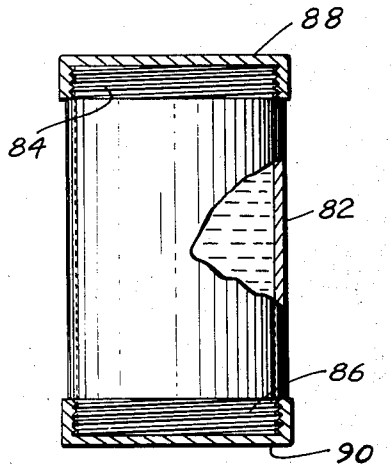


Fig. 10.

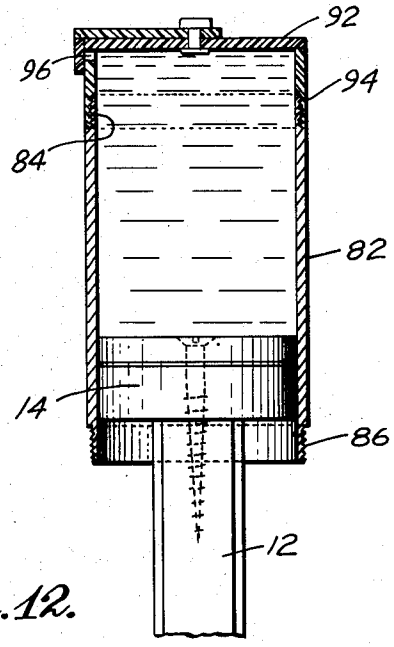


Fig. 12.

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UNITED STATES PATENT OFFICE

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SANITARY CREAM DISPENSER

J Floyd Peal, Los Angeles, Calif.

Application December 22, 1950, Serial No. 202,358

4 Claims. (Cl. 222—162)

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This invention relates to an improved sanitary cream dispenser and has for one of its principal objects the provision of means for ready and economic dispensing of creams, hand lotions and similar liquids and is particularly adapted for use in places where considerable quantities of such commodities are used.

One of the principal objects of this invention is to provide, in a dispenser for creams, lotions and liquids of various densities, a device wherein the amount of material is always visible so that the same can be readily replenished when necessary.

Another object of the invention is the provision, in a sanitary dispenser for various semi-fluid materials, of an ejecting means for the device which is so constructed that there will be little, if any, possibility of partially used material being pushed back into the container, whereby a new and sterile supply is always available to the next user.

Yet another object of the invention is to provide, in a combination container and dispenser for creams, lotions, liquids and the like of various viscosities, a closure element which will readily and simply seal the container against undesirable leakage or extrusion of the contents, but which, at the same time, can be readily shifted into a material dispensing position.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawings and following specification.

The invention, in a preferred form, is illustrated in the drawings and hereinafter more fully described.

In the drawings:

Figure 1 is a perspective view of the improved sanitary cream dispenser of this invention, showing the same in actual operation.

Figure 2 is a top plan view of the structure of Figure 1, illustrating particularly the closure element and showing the same in sealed position in full lines and in dispensing position in dotted lines.

Figure 3 is a vertical section taken on the line 3—3 of Figure 2.

Figure 4 is a horizontal section taken on the line 4—4 of Figure 3, looking in the direction indicated by the arrows.

Figure 5 is an elevation of a modified form of the device.

Figure 6 is a top plan view of the structure of Figure 5 showing the closure means in container sealing position.

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Figure 7 is a vertical section taken on the line 7—7 of Figure 5, looking in the direction indicated.

Figure 8 is a horizontal section taken on the line 8—8 of Figure 5 looking downwardly.

Figure 9 shows a further modification.

Figure 10 is an elevation, partly in section and partially broken away, showing a package unit which can be converted into the dispensing container of this invention.

Figure 11 shows a combination cover and closure element which can be applied to the package unit illustrated in Figure 10.

Figure 12 is a view of a complete dispensing apparatus embodying the original package of Figure 10 in combination with the cap and closure of Figure 11 and a supporting dispensing piston and pedestal.

As shown in the drawings:

The reference numeral 10 indicates generally a supporting platform or base for the improved sanitary cream and lotion dispenser of this invention, but it will be obvious that the device can be supported in numerous other manners and by many different means, depending upon circumstances.

A pedestal 12 is fastened upon the base 10 and this is surmounted by a flat cylindrical supporting element or piston 14, upon the upper surface of which is affixed a sealing gasket or the like 16, both of these elements, in turn, being covered by a circular plate 18. These three assembled structures are fastened to the upper end of the pedestal 12 by means of a screw or the like 20.

Adapted for slidable close fitting relationship with the elements 14, 16 and 18 is a hollow cylinder 22, preferably composed of some transparent plastic material and which is provided with a sealed-on cover 24.

A closure element in the form of a somewhat triangular plate 26 is pivotally mounted adjacent the center of the cover 24 by means of a pin, bolt or rivet 28 and this triangular element 26 is curved at its outer edge to conform to the circumference of the cover 24 and is provided with an integral depending ledge 30 which, however, may be a separate element.

An opening in the form of a slot 32 is provided adjacent the upper edge of the cylinder 22 and this can be of a desired size so as to permit satisfactory ejection and distribution of a certain portion of the contents of the cylinder. These contents are usually in the form of a cream or hand lotion, such as indicated at 36, and a desired quantity of the same can be

ejected through the slot 32 by means of a corresponding usually slight pressure on the top of the cylinder 22 and its cover 24. A quantity of such ejected cream is indicated at 40 in Figure 1, which shows the same being wiped off the side of the container 22 by means of one of the fingers of the operator or user.

The closure element 26 is normally maintained in its container sealing position as indicated in the full lines in Figure 2, but can be readily shifted to cream dispensing position as indicated by the dotted lines in this figure.

The downturned ledge 30 is of sufficient extent and corresponds quite closely to the contour of the containing cylinder 22, whereby there is substantially no possibility of loss of the contents 36 through oozing, and even considerable pressure on the cover 24 of the container is ordinarily not cause for any undesirable ejection of the contents, provided the cover or closure member 26—30 is in sealing position.

A modified form of the invention which is designed for use with lighter fluids, such as fairly heavy liquids, including lotions and the like, is illustrated in Figures 5 to 8, inclusive. Here the same base 10 and pedestal 12 are provided, but the circular block at the top of the pedestal or piston 12 is slightly smaller in diameter than the block 14, this being indicated by the reference numeral 44. This block is, in this modification, surmounted by a cup-shaped sealing element 46 which is held in position by means of a circular plate 48, the assemblage of parts being maintained in desired relationship to each other and to the pedestal 12 by means of a screw 50.

A cylinder 52, similar to the cylinder 22, is adapted to be fitted over the pedestal and gasket assemblage and this is also preferably of some transparent plastic material, being surmounted by an integral cover plate 54.

A closure 56, similar to the closure 26, is provided, this also having a downturned lower lip 60 and is centrally pivoted at 58. However, the inner face of the arc-shaped lip 60 is provided with a resilient sealing plate or gasket 62, preferably composed of rubber or the like, and this provides a very tight fit with the corresponding upper edge of the cylinder 52, thereby effectively sealing the slotted opening 64.

In order that the rubber or other gasket 62 will not be unduly compressed except when the closure is in sealing position, those portions of the cylinder 52 adjacent the slot 64 are slightly recessed, as indicated at 66 in Figures 5 and 8, whereby when the closure is in either one of these open positions, the rubber gasket 62 will not be under compression and will, therefore, retain its resiliency and sealing qualities for a much greater length of time.

In the modification shown in Figure 9, a closure element 70 is provided which fits over the dispensing slot, this being fastened onto a support 72 shaped as shown and which is pivotally mounted at 74 for movement thereabout.

The same is operated by an integral handle 76 and a coiled spring 78 is mounted on the fixture in such a manner that the closure element 70 is normally in sealing position over the dispensing slot, but can be raised into the position shown in the figure by downward pressure on the handle 76. This downward pressure also serves to assist in extruding a certain portion of the contents through the dispensing slot.

The base 10 and pedestal 12 provide a suitable support when the dispenser is on a bench, table or the like, but the same can also be positioned on a wall or some other suitable location with little or no change in construction and operation.

It has been found that, for both the large and small sizes, a completely replaceable container is desirable, particularly for packing and shipping purposes. Such a container is illustrated in Figure 10 where the containing cylinder is shown at 82. This is integrally screw-threaded at each end as illustrated at 84 and 86, respectively. Removable caps are fitted onto the screw-threaded ends as illustrated at 88 and 90, respectively, and the container full of material is shipped in this condition. When it is desired to be used, the caps 88 and 90 are removed and discarded. The container full of hand cream or the like is then fitted down over its supporting piston 14 and a combination dispensing and cover cap is applied to the upper end, which dispensing cover cap can be similar to that shown at 24 with a closure 26 or to that shown at 54 with a closure 56 or to that shown in Figure 9. The only difference is that this cover cap 92 is internally screw-threaded to conform to the screw threads 84 on the cylinder 82 and is provided with a shoulder 94 whereby a space at the top of the cylinder will always be left open while, at the same time, a satisfactorily tight sealing relationship will result at the screw-threaded connection 84.

The opening 96 for dispensing of the contents is in the same relative position as in the other embodiments of the invention, and as best shown in Figure 12, the piston 14 can be pushed a sufficient distance into the cylinder 82 so as to provide a satisfactory support even when a full cylinder is inserted onto the piston. The original contents of the cylinder 82 are simply pushed upwardly into the space in the cap 92, whereupon the device is immediately ready for satisfactory operation. This particular modification is especially desirable, either for large containers which would otherwise have to be refilled frequently or for small containers used in homes.

In this particular embodiment of the invention, there is no necessity of refilling the dispensing container from another or larger package, which is oftentimes messy and sometimes unsanitary, in addition to requiring considerable time. Here the container 82, in which the cream is shipped and delivered to the consumer, is used as the dispensing container.

Additionally, a smaller size is available for use in homes with the same satisfactory procedure and method of use.

It has been found that even fairly light liquids can be adequately maintained and satisfactorily dispensed from a container of this sort and with little or no difficulty so far as leakage or sanitary regulations are concerned.

These devices are particularly desirable in large plants, especially those which employ workmen, including women, whose hands may be subjected to abrasives and irritants including dirt and other foreign material. When such grime and the like is removed by washing, a soothing lotion is especially desirable in many cases and the dispenser of this invention adequately provides the necessary construction and meets the indicated need.

Furthermore, there is not, at any time, any danger of contamination of the contents due

to use by persons with dirty or germ-infested hands or skin and, obviously, the dispenser can also be used for liquid or semi-liquid soaps and similar detergents with very satisfactory results.

I am aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from the principles of this invention, and I, therefore, do not propose limiting the patent granted hereon otherwise than as necessitated by the appended claims.

I claim as my invention:

1. A sanitary dispenser for relatively heavy liquids, comprising a support, a combination plate and gasket on the support, a container adapted for slidable substantially liquid-tight relationship with the support and gasket, a liquid tight sealing cover at the outer end of the container, a dispensing slot on the side of the container adjacent the cover and a pivoted shiftable closure adjacent the slot, the closure being centrally pivoted at the top of the container, a depending lip on the closure, said lip fitting over the slot in the container, and a resilient sealing layer positioned on the inner face of said depending closure lip.

2. A device as described in claim 1, wherein recesses are provided in the upper end of the cylinder on both sides of the dispensing aperture for relieving the pressure on the resilient layer when the closure element is shifted away from the aperture.

3. A device as described in claim 2, wherein internally screw-threaded caps are provided for the ends of the container for packaging and shipping purposes, and wherein one of the temporary sealing caps is replaced by the sealing cover with its shiftable closure means for dispensing purposes.

4. A device as described in claim 3, wherein the screw-threaded relationship between the dispensing cover and the end of the cylindrical container is such that the dispensing slot is above the end of the container.

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