

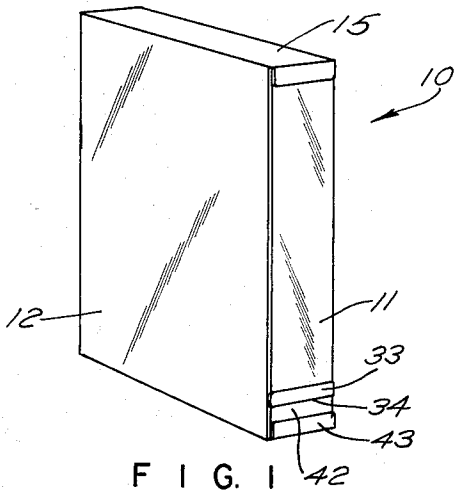
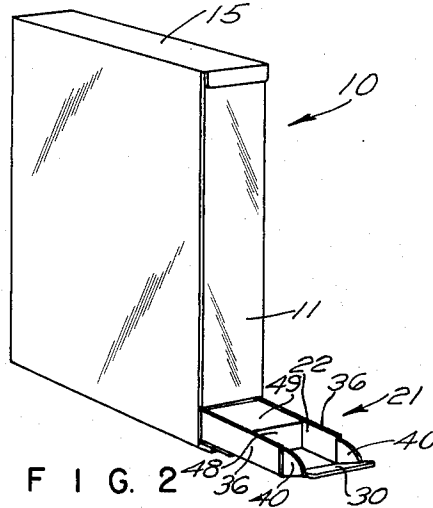
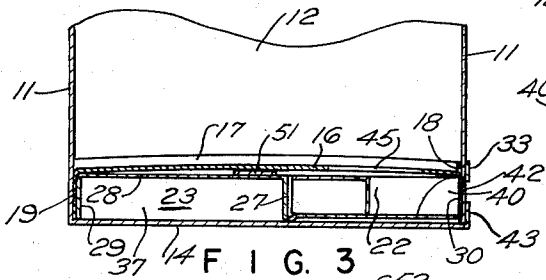
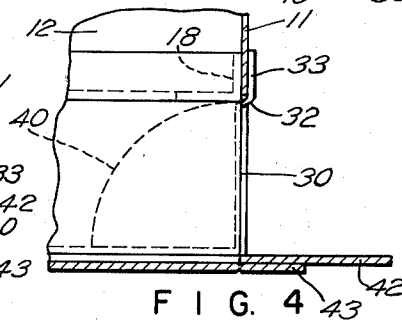
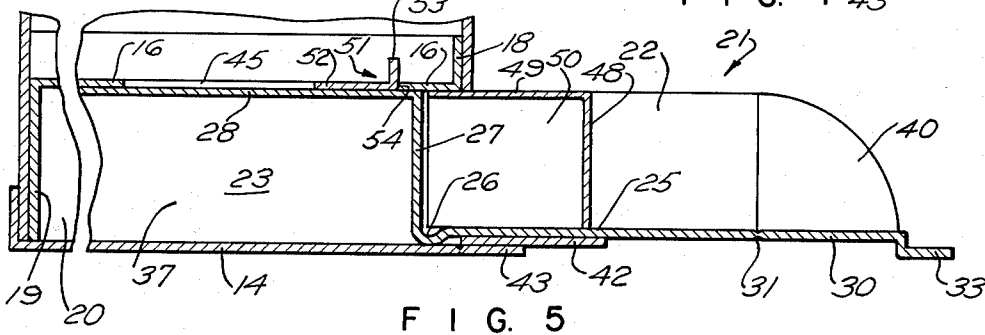
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DISPENSING PACKAGE WITH SLIDING TRAP CHAMBER

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3,201,008

DISPENSING PACKAGE WITH SLIDING TRAP CHAMBER

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This invention relates to a dispensing package which may contain a dry fluent material, such as a soap powder, with a means to dispense the said material.

One of the objects of this invention is to provide an arrangement so that measured quantities of dry material may be dispensed.

Another object of the invention is to provide an arrangement so that the dispensing means is wholly contained within the package of material to be dispensed.

Another object of the invention is to provide a dispensing device which will be simple so that it may be discarded with the package after it is emptied.

Another object of the invention is to provide for easily pouring the fluent dry material of the package into its end use.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

FIG. 1 is a perspective view of the package in closed position and my dispensing arrangement located therein;

FIG. 2 is a view similar to FIG. 1 but illustrating the dispensing drawer as drawn from the package;

FIG. 3 is a fragmental sectional view of the lower portion of the package to illustrate in greater detail the dispensing means within the package;

FIG. 4 is a view similar to FIG. 3 but on a larger scale after a portion of the end wall is torn downwardly to permit withdrawal of the drawer which is to contain the material dispensed; and

FIG. 5 is a sectional view of a fragmental portion of the package and on a larger scale with the drawer drawn outwardly into a position for discharging its contents.

In proceeding with this invention, I provide in the lower portion of a package, a compartment by positioning a division wall parallel to the bottom wall of the package. This division wall is provided with an opening for discharge of contents of the package into a drawer normally located entirely within the compartment. Thus, with the drawer in this position, it may be filled with a portion of the contents of the package and an arrangement is then provided whereby this drawer may be drawn out of the package and as it is drawn out, it will close off the opening in the division wall through which opening the material passes to fill the drawer. There is also provided at the end of the drawer a wall which may be swung outwardly so as to provide a pouring spout for the contents of the drawer when drawn out of the package. This end wall may then be hinged back into its closed position and the drawer pushed inwardly which will provide for another flow of material from the package into the containing portion of the drawer and the above operation may be repeated. The drawer is made of a certain size so that a measured quantity of the material to be dispensed will be dispensed each time the drawer is pulled out. The drawer may be made to vary the size of its containing portion in various ways.

With reference to the drawings, a package is designated generally 10 and as here shown is of generally right angular construction having opposite pairs of side walls 11 and 12 which are right angularly arranged to each other together with a bottom wall 14 and a closure top wall 15. A division wall 16 is spaced from the bottom wall 14 and

is secured to the side walls 12 by upwardly turned lips 17 and is secured to one side wall 11 by an upwardly turned lip 18 while at the other end it is turned downwardly to provide a leg 19 to support this end wall in spaced relation to the bottom wall 14. Any means of securing the lips 17 and 18 to the side walls such as an adhesive may be utilized. Thus there is provided a dispensing compartment 20 between the division wall 16 and the bottom wall 14 in which a drawer generally designated 21 may be slidably positioned.

This drawer 21 provides a containing portion 22 for a portion of the contents of the package and a closed off portion 23 to prevent material of the package from entering the drawer at its inner portion. Conveniently this structure may be provided by a bottom wall 25 with a depressed portion 26 to provide a foot to slide along the bottom wall 14 and at a point approximately mid-way of the longitudinal extent of the drawer, the bottom wall is bent upwardly as at 27 to a point substantially the height of the drawer and to a point closely adjacent to the division wall 16 and then it extends rearwardly as at 28 so as to be in close proximity to the division wall 16. At the inner or rear end of the drawer, this portion may be bent downwardly as at 29 (FIG. 3) as an inner end wall of the drawer. An outer end wall 30 is hinged as at 31 to the bottom wall 25 of the drawer and may extend upwardly as seen in FIG. 3 and FIG. 4 to an extent higher than the general height of the compartment 20 by reason of a deflection as at 32 so as to provide an offset portion 33 to extend over the outer surface of the wall 11. This wall 11 is provided with an opening for the drawer end wall 30 to pass through. This opening may be a slit as at 34 or the end wall may in some instances be completely omitted from the location of slit 34 to the bottom wall. Side walls 36 extend upwardly from the bottom wall 25 of the drawer, with additional side walls 37 extending downwardly from the horizontal wall 28 of the drawer so as to provide some rigidity to the drawer. Gussets 40 attached to the end wall 30 move with the end wall as it moves about its hinge 31 to and from a position along the side walls 36 so as to prevent material which is poured from the containing portion 22 of the drawer from spilling laterally while pouring.

In cases where there is a slit 34 provided instead of an opening the full extent of the compartment, the portion 42 of the side wall initially extends upwardly to cover a portion of the end wall 30 of the drawer, as seen in FIG. 3, and it is held in place by a lip 43 which is sometimes used in the construction of a box of this character. This portion 42 will be a part of one of the companion side walls 12 and thus in order to open the dispensing device, this portion 42 will be torn downwardly so as to provide an opening into which the drawer may be withdrawn.

The drawer will be initially filled with the material to be dispensed by reason of the opening 45 in the division wall 16 registering with the container 22 of the drawer. Thus after the wall 42 is torn downwardly to expose the end of the drawer, the drawer may be grasped by the offset portion 33 and pulled outwardly. As the drawer is pulled outwardly, the portion 28 of the drawer closes off the opening 45 (see FIG. 5) so that no more material from the upper part of the package may be flowed into the drawer. At this point the end wall 30 of the drawer may be hinged downwardly into the position shown in FIG. 2 and 5 and the contents of the drawer may then be poured from this portion 22 in the amount represented by the content of the drawer or area of volume shown at 22.

In some cases it may be desirable to divide this volume and to achieve this result a separator 48 may be placed into this area in such a way that it may be easily removed thus giving to the drawer the value of having more than

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one measured volume. This separator 48 has a top wall 49 and side walls 50 so as to close off the rear portion of the drawer.

In order to limit the amount that the drawer may be pulled outwardly, I provide a stop 51 comprising a portion 52 secured to the wall 28 and a portion 53 which will spring upwardly as the drawer is pulled outwardly so as to engage the edge 54 of the opening 45 in the division wall 16.

I claim:

1. A package for dry fluent material having bottom and side walls, a division wall generally parallel to said bottom wall and spaced upwardly therefrom and extending between said side walls to provide a dispensing compartment, one of said side walls having an opening adjacent but below said division wall, said division wall having an opening therein adjacent said side wall in which said opening is located, a drawer slidably mounted in said compartment and having an end wall closing said side wall opening with a portion of said end wall extending upwardly along the outer surface of one of said side walls, said drawer having a material receiving portion adjacent said end wall to register with said opening in the division wall when the drawer is within said compartment to receive fluent material and having a portion spaced above the bottom wall remote from said end wall adjacent to

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and parallel to said division wall to act as a valve and close said division wall opening when the drawer is moved out of said compartment, said drawer having a bottom wall, means for hinging said end wall of said drawer to the bottom wall of the drawer to swing downwardly when the drawer is moved outwardly from the compartment to open the material receiving portion for pouring the material therefrom and sides connected to said end wall to swing therewith and guide the material over the end wall as poured.

2. A package as in claim 1 wherein said side wall opening is a slit with a portion of the end wall below said slit holding said drawer in closed position, said side wall portion being removable to provide an opening for the withdrawing of the drawer from said compartment.

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