Aug. 26, 1958 O. MOREY 2,849,035

POWDERED SOAP AND DETERGENT DISPENSING DEVICE

Filed Aug. 4, 1955

2 Sheets-Sheet 1

FIG. 1

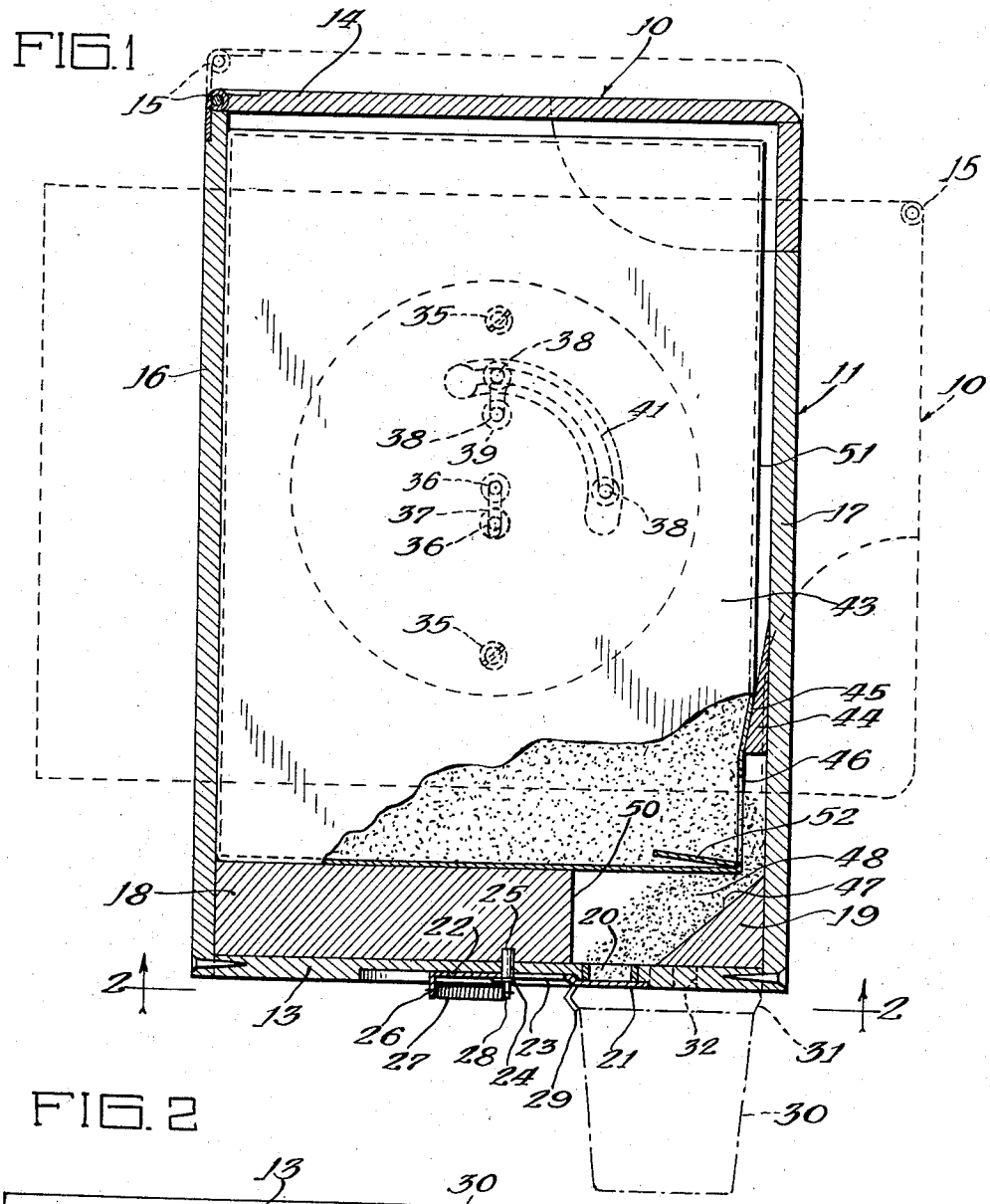
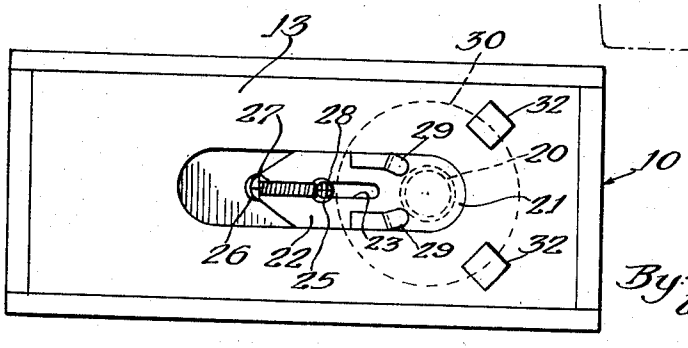


FIG. 2



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FIG. 3

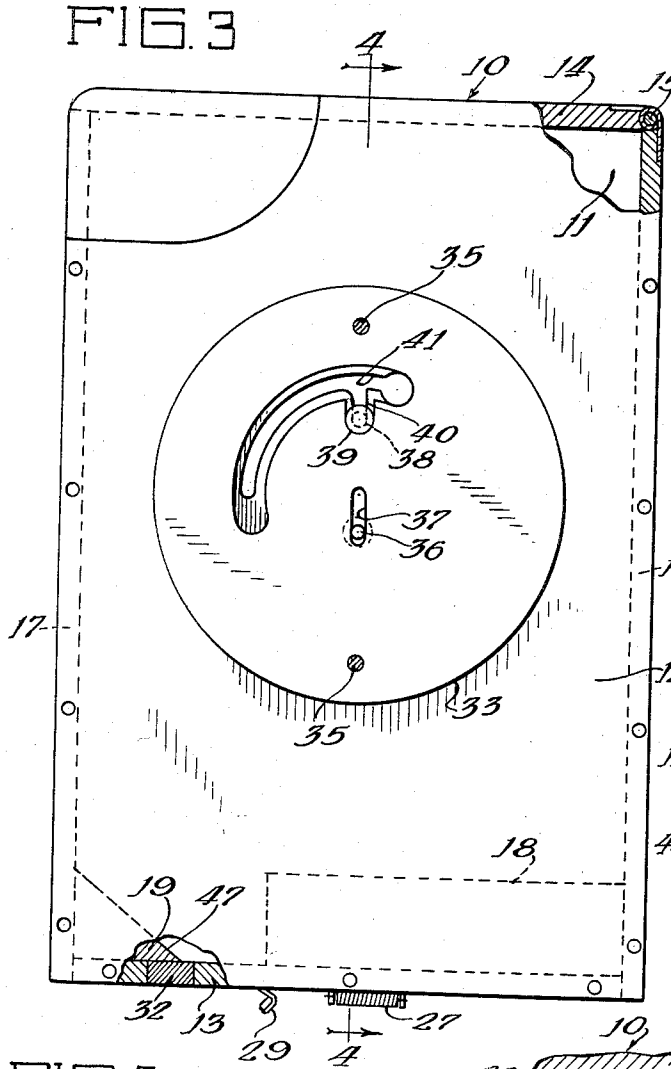


FIG. 4

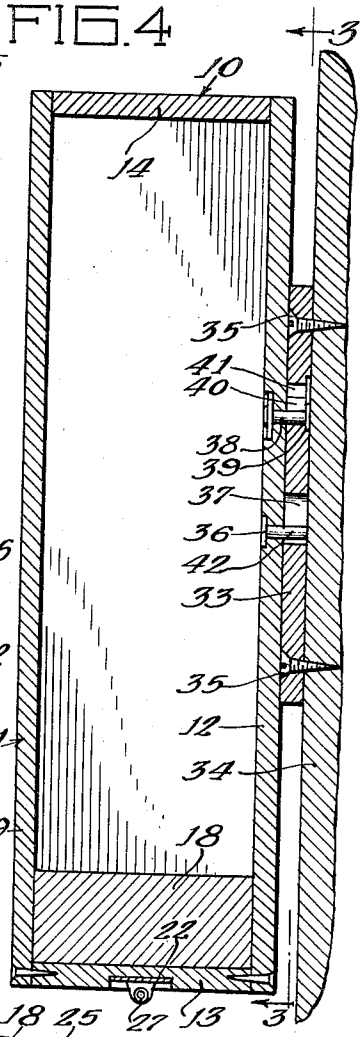
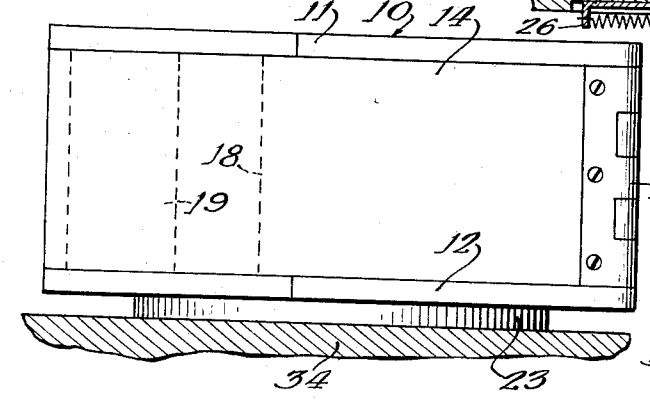


FIG. 5



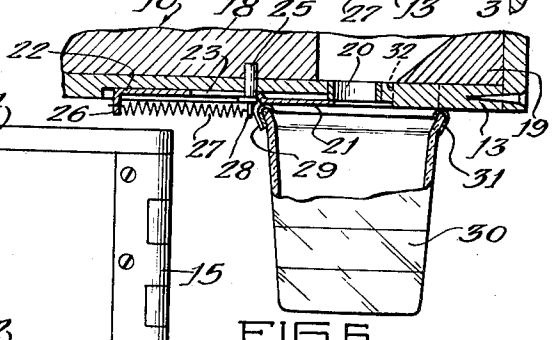


FIG. 6

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POWDERED SOAP AND DETERGENT DISPENSING DEVICE

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Application August 4, 1955, Serial No. 526,386

5 Claims. (Cl. 141—360)

This invention relates to a powdered soap and detergent dispensing device which is particularly adapted to be mounted on the wall of a kitchen or other place in such a manner as to be readily accessible for use by a housewife or other person.

An object of the present invention is to provide a new and improved dispensing device for powdered soaps, detergents and the like, which is adapted to contain a package or carton of such powdered soap or detergent material and which embodies a novel mechanism for dispensing the powdered soap or detergent material into a dispensing container which is removably mounted on the bottom of the dispensing device so that a measured portion of the powdered soap or detergent may be withdrawn from the carton or package which is located within the device, as and when desired.

A further object of the invention is to provide a novel dispensing device for dispensing the powdered soap or detergent from the inside of the housing which is embodied in the device as and when desired and in a measured quantity.

A further object of the invention is to provide a novel mounting structure for mounting the dispensing device upon the wall of a kitchen or like place.

A further object of the invention is to provide in the new dispensing device a novel mounting bracket for mounting the dispensing device on a kitchen wall or like place and in such a manner that it may be readily tilted through an angle of 90° to enable a carton of powdered soap or detergent to be inserted thereinto or an empty carton to be withdrawn therefrom.

A further object of the invention is to provide in the new dispensing device a novel means for holding the scored tongue portion customarily provided in one upper side wall portion of paperboard cartons for powdered soaps and detergents in open position so as to discharge the contents of the carton into the interior of the dispenser housing when the paperboard carton is inserted into the dispenser housing in inverted position.

Other objects will appear hereinafter.

Fig. 1 is a vertical sectional view showing a preferred form of the new powdered soap or detergent dispensing device;

Fig. 2 is a bottom plan view of the powdered soap or detergent dispensing device shown in Fig. 1;

Fig. 3 is a rear elevational view of the new powdered soap or detergent dispensing device with a part thereof broken away to show one of the retaining magnets mounted in the bottom wall thereof for removably holding the powdered soap or detergent in position upon the bottom wall of the housing of the device;

Fig. 4 is a vertical sectional view on line 4—4 in Fig. 3;

Fig. 5 is a top plan view, and

Fig. 6 is an enlarged fragmentary sectional view of the dispensing unit which is embodied in the new device.

A preferred form of the present invention is illustrated in the drawings, where it is generally indicated at 10, and includes a housing 11 having a rear side wall 12, a front side wall 49, end walls 16 and 17, a bottom wall 13, and a top wall or cover 14 which is hingedly mounted, as at 15, on the end wall 16.

The new powdered soap or detergent dispensing device 10 includes a supporting block 18 which is mounted within the housing 11 on the bottom wall 13 thereof and extends partially thereacross from the end wall 16 toward the end wall 17, and an inclined dispensing chute member 19 which is mounted on the bottom wall 13 in one bottom corner portion of the housing 11 and in spaced relationship to the supporting block 18, this member 19 having an inclined dispensing surface 47.

A dispensing or discharge outlet 20 is provided in the bottom wall 13 of the housing 11 inwardly of the inclined dispensing chute member 19. This dispensing outlet 20 is normally closed by a portion 21 of a dispensing slide member 22 which has a slot 23 formed therein and into which there projects the lower end portion of a headed stud 25 which is mounted in the bottom wall 13 of the housing 11 and which said headed stud 25 retains the dispensing slide 21—22 in the bottom wall 13 of the housing 11. This dispensing slide member 21—22 has a depending angled end portion 26 to which one end of a resetting coil spring 27 is attached, and the other end portion of the resetting coil spring 27 is attached, as at 28, to a depending extension of the stud 25. The dispensing slide member 22—23 has a pair of spaced lugs 29 struck therefrom and depending therefrom and a dispensing cup 30 is adapted to bear against these lugs 29 for a reason which will be pointed out hereinafter.

The dispensing cup 30 has a metallic rim 31 mounted upon and encircling the upper edge portion thereof and this metallic rim 31 is adapted to be engaged against the depending lugs 29 of the dispensing slide 22, as and for a reason to be pointed out presently.

A plurality of small steel magnets 32 are mounted in the bottom wall 13 of the housing 11 in suitably spaced relationship relative to the dispensing cup 30 and its magnetically attractable metal rim 31, as will be seen by reference to Figs. 2, 3 and 6.

The present invention includes a mounting bracket 33 for detachably mounting the device on the wall of a kitchen or like place, and this mounting bracket is adapted to be attached by fastening elements in the form of screws 35 to the vertical wall 34 of a kitchen or like surface.

The mounting bracket 33 has a vertically extending slot 37 formed centrally therein and a headed stud 36 is fastened to the rear wall 12 of the housing 11 and has its rearwardly extending shank 42 projecting into this vertical slot 37, as shown in Figs. 3 and 4.

An arcuate slot 41 is provided in the mounting bracket 33 and has a depending offset extension 40 and the shank 38 of a headed stud 39 works in this slot 41 and is normally pivoted downwardly into the offset portion 40 thereof.

A triangular-shaped block 44 is mounted on the end wall 17, in the housing 11, above the dispensing chute block 19—47 and a paperboard package or carton 43 containing a powdered soap or detergent is adapted to be mounted in the housing 11, on the block 18. Such paperboard cartons 43 are commonly provided in one side wall 51 thereof with a scored tongue portion 52 and when the carton 43 is inserted into position of use in the housing 11 the triangular-shaped block 44 bears against the scored tongue portion 52 in the side wall 51 of the carton 43 so as to force the scored tongue portion 52 inwardly and thus provide a discharge opening 46 in the carton 43 above the inclined surface 47 of the dispensing chute 19—47. When the parts are so arranged a

measuring area 48 is provided in one lower corner portion of the housing 11, formed by the conjoint action of the inner end wall 50 of the supporting block 18, the inclined surface 47 of the inclined chute 19, the front and rear walls 49 and 12, respectively, of the housing 11, and the bottom wall 53 of the carton 43 (Fig. 1).

The use and operation of the new powdered soap and detergent dispensing device are as follows:

The housing 11 may be detachably mounted on a vertical supporting wall surface as 34 by inserting the shanks 42 and 38 of the headed studs 36 and 39, respectively, into the slots 37 and 41, respectively, and allowing them to drop downwardly so that the shanks 42 and 38 of the headed studs 36 and 39 rest in the lower portion of the vertical slot 37 and in the downwardly offset portion 40 of the slot 41, respectively, and with the head of the stud 39 spanning the downwardly offset portion 40 of the slot 41 to retain the device upon the mounting bracket 33.

As will be described more fully hereinafter, the housing 11 may be tilted at an angle of 90° from the vertical, into dotted line position (Fig. 1) whereupon the hinged cover or top 14 may be pivoted on its hinge 15 to allow a package or carton 43 of powdered soap or detergent material to be inserted into the housing 11 in inverted position with the scored tongue 52 previously manually pushed in to provide a discharge outlet 46 in the side wall of the carton. As the carton 43 is guided inwardly it will move over the inclined surface 45 of the triangular-shaped block 44 so that when the carton 43 comes to rest on the supporting block 18 the inclined surface 45 of the block 44 will bear against the adjacent side wall of the carton 43 and the previously formed outlet opening 46 in the side wall 51 of the carton 43 will be disposed above the inclined chute member 19 and the measuring area 48 so that, when the housing 11 and the carton 43 are moved back into upright position, a portion of the powdered soap or detergent in the carton 43 will flow by gravity through the outlet opening 46 onto the inclined surface 47 of the block 19 and into the measuring area 48.

The dispensing cup 30—31 is normally held upon the bottom wall 13 of the housing 11 by the action of the magnets 32 on the magnetically attractable metal flange 31, and with the magnetically attractable rim 31 of the cup 30 engaged against the lugs 29.

When the parts are thus arranged all that is necessary in order to discharge a measured quantity of powdered soap or detergent material from the carton 43 into the dispensing cup 30 is to grasp the dispensing cup 30 manually and slide it to the left from the position in which it is shown in Fig. 1 into the position in which it is shown in Fig. 6. This operation moves the portion 21 of the dispensing slide member 21—22 out from under the discharge outlet 20 and opens the latter so as to discharge a measured quantity of the powdered soap or detergent material from the measuring chamber 48 through the discharge outlet 20 into the cup 30.

The dispensing cup 30, having a measured quantity of the powdered soap or detergent material therein, may then be manually withdrawn from the bottom wall 13 of the housing 11 and the contents of the cup 30 used as and where desired.

As soon as manual pressure on the cup 30 and against the lugs 29 is released, the ten tensioned resetting spring 27 will urge the dispensing slide member 22 back into its normal position, that is, from the position in which it is shown in Fig. 6 into the position in which it is shown in Fig. 1, thereby moving the portion 21 of the dispensing slide member 21—22 across the discharge outlet 20 so as to close the latter.

It will be noted that the housing 11 may be tilted on the mounting bracket 33 through an angle of 90° in order to facilitate installing or removing a carton of powdered soap or detergent 43, as and when desired, and this may be accomplished by merely raising the housing 11 so as to move the headed studs 36–42 and 39–38 upwardly in the slot 37 and in the downwardly offset portion 40 of the arcuate slot 41, respectively, until the shank 38 of the headed stud 39 enters the main body of the arcuate slot 41 whereupon the entire device may be tilted on the mounting bracket 33 through an angle of 90° into the position in which the parts are shown in dotted lines in Fig. 1.

It will thus be seen from the foregoing description, considered in conjunction with the accompanying drawings, that the present invention provides a novel dispensing device for powdered soaps and detergents, and has the desirable advantages and characteristics, and accomplishes its intended objects, including those hereinbefore pointed out and others which are inherent in the invention.

I claim:

1. A dispensing device for powdered soap, detergents, and the like, comprising a housing adapted to contain a supply of powdered soap, detergent, or like material, means for detachably mounting said housing upon a vertical supporting wall surface, said housing including a bottom wall having a discharge outlet therein, manually operable slide means slidably mounted upon said bottom wall of said housing and normally closing said discharge outlet, resilient means normally urging said slide means into position to close said discharge outlet, a dispensing receptacle comprising a cup-like body having an annular ferrous metallic element encircling said body adjacent the top thereof, means for slidably retaining said dispensing receptacle upon said bottom wall of said housing adjacent said discharge outlet, said last named means including a plurality of magnets mounted in spaced relationship to each other on the bottom wall of said housing and adapted to magnetically attract said ferrous metal element so as to retain and removably hold said receptacle upon said bottom wall of said housing, said slide means including a slide bar having a portion normally extending below and closing said discharge outlet, said slide bar having a plurality of spaced lugs depending therefrom in position to be engaged by the wall of said receptacle to enable said slide bar to be slidably moved upon the bottom wall of said housing by manual pressure applied to said receptacle so as to move said slide bar into position to open said discharge outlet.

2. A dispensing device for powdered soap, detergents, and the like, comprising a housing adapted to contain a supply of powdered soap, detergent, or like material, means for detachably mounting said housing upon a vertical supporting wall surface, said housing including a bottom wall having a discharge outlet therein, manually operable slide means slidably mounted upon said bottom wall of said housing and normally closing said discharge outlet, resilient means normally urging said slide means into position to close said discharge outlet, a dispensing receptacle comprising a cup-like body having an annular ferrous metallic element encircling said body adjacent the top thereof, means for slidably retaining said dispensing receptacle upon said bottom wall of said housing adjacent said discharge outlet, said last named means including a plurality of magnets mounted in spaced relationship to each other on the bottom wall of said housing and adapted to magnetically attract said ferrous metal element so as to retain and removably hold said receptacle upon said bottom wall of said housing, said slide means including a slide bar having a portion normally extending below and closing said discharge outlet, said slide bar having a plurality of spaced lugs depending therefrom in position to be engaged by the wall of said receptacle to enable said slide bar to be slidably moved upon the bottom wall of said housing by manual pressure applied to said receptacle so as to move said slide bar into position to open said discharge outlet, carton supporting means for supporting a carton of powdered soap or detergent material in said housing with a side wall thereof having a discharge opening therein and disposed in spaced relationship to and

above said bottom wall of said housing, a chute member mounted on said bottom wall within said housing and in spaced relationship from said carton supporting means and cooperating with the latter and with the bottom and vertical walls of said housing to provide a measuring chamber, said chute member having an inclined surface directed toward said discharge outlet in said bottom wall so as to direct a quantity of powdered soap or detergent from said discharge opening in said side wall of said carton into said measuring area and thence into said discharge outlet in said bottom wall and into said receptacle when said slide means is manually moved by said receptacle into position to open said discharge outlet in said bottom wall of said housing.

3. A dispensing device for powdered soap, detergents, and the like, comprising a housing adapted to contain a supply of powdered soap, detergent, or like material, means for detachably mounting said housing upon a vertical supporting wall surface, said housing including a bottom wall having a discharge outlet therein, manually operable slide means slidably mounted upon said bottom wall of said housing for movement therealong, resilient means normally urging said slide means into position to close said discharge outlet, a dispensing receptacle having a ferrous metal element adjacent the top thereof, magnetic retaining means mounted on said bottom wall of said housing and adapted to attract said ferrous element to slidably retain said dispensing receptacle upon said bottom housing wall for sliding movement therealong adjacent said discharge outlet and in communication with the latter, said slide means including means adapted to be engaged by said dispensing receptacle to enable said slide means to be moved manually by said dispensing receptacle into position to open said discharge outlet during said sliding movement of said receptacle.

4. A dispensing device for powdered soap, detergents, and the like, comprising a housing adapted to contain a supply of powdered soap, detergent, or like material, means for detachably mounting said housing upon a vertical supporting wall surface, said housing including a bottom wall having a discharge outlet therein, manually operable slide means slidably mounted upon said bottom wall of said housing for movement therealong, resilient means normally urging said slide means into position to close said discharge outlet, a dispensing receptacle comprising a cup-like body and an annular ferrous element encircling said body adjacent the top thereof, magnetic retaining means including a plurality of magnets mounted in spaced relationship on the bottom wall of said housing in position to magnetically attract said ferrous element and slidably retain said dispensing receptacle upon said bottom wall of said housing

for sliding movement therealong adjacent said discharge outlet and in communication with the latter, said slide means including means adapted to be engaged by said dispensing receptacle to enable said slide means to be moved manually by said dispensing receptacle into position to open said discharge outlet during said sliding movement of said receptacle.

5. A dispensing device for powdered soap, detergents, and the like, comprising a housing adapted to contain a supply of powdered soap, detergent, or like material, said housing including a bottom wall having a discharge outlet therein, manually operable slide means slidably mounted upon the said bottom wall of said housing for movement therealong normally closing said discharge outlet, resilient means normally urging said slide means into position to close said discharge outlet, a dispensing receptacle, means mounted on said housing in position to slidably retain said dispensing receptacle adjacent said discharge outlet and in communication with the latter said slide means including means adapted to be engaged by said dispensing receptacle to enable said slide means to be moved manually by said dispensing receptacle into position to open said discharge outlet during said sliding movement of said receptacle and means for mounting said housing upon a vertical supporting wall surface comprising a mounting bracket adapted to be mounted on a wall surface and including a plate having two substantially straight elongated slots with an arcuate-shaped slot intersecting one end of one of said elongated slots, said mounting means further comprising two pins projecting from said housing in position to be disposed in respective ones of said elongated slots, said elongated slots being disposed in such position that said pins may be simultaneously moved longitudinally thereof into position to dispose the pin from said one slot in said arcuate slot for swinging movement therealong about the other of said pins.

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