June 24, 1930. O. A. SCHOEN 1,765,622

DISPENSING DEVICE

Filed July 26, 1928

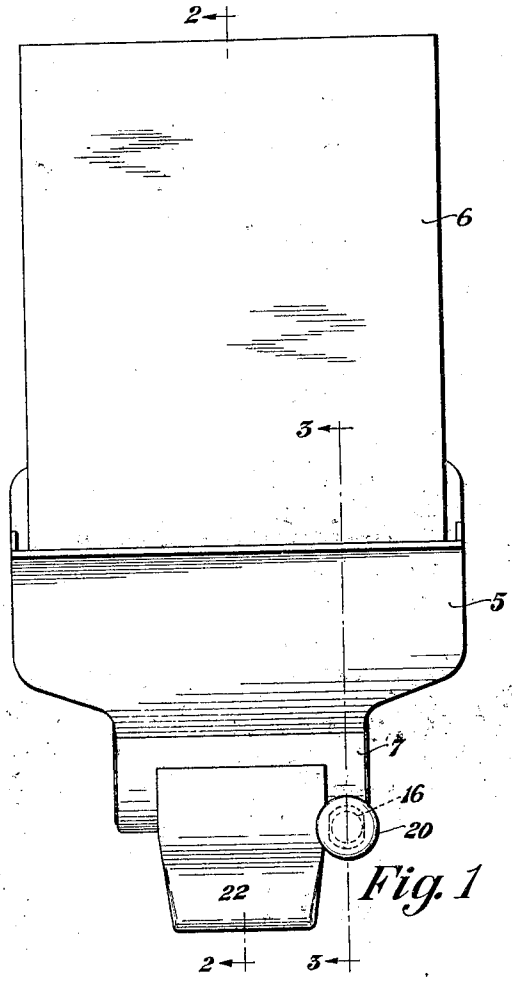


Fig. 1

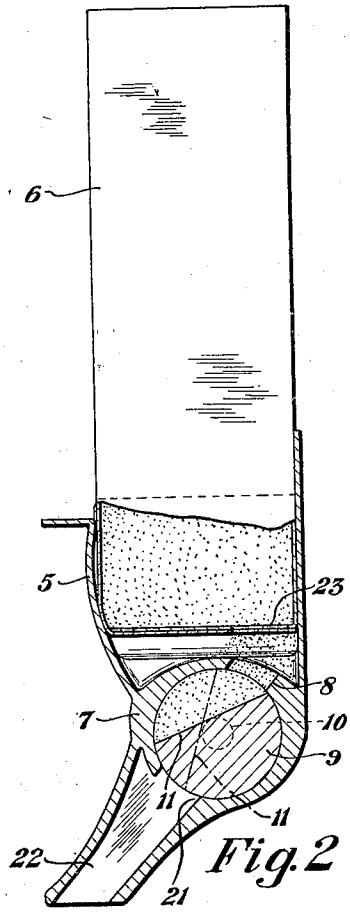


Fig. 2

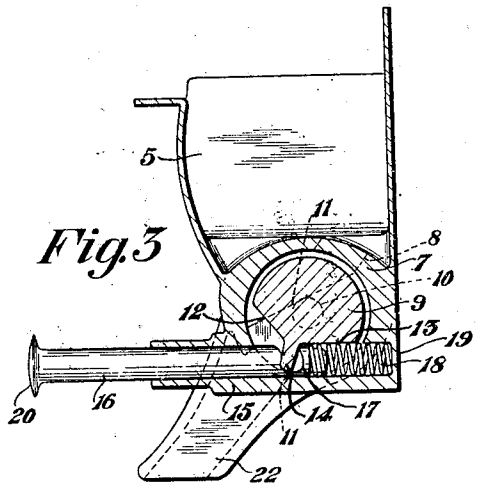


Fig. 3

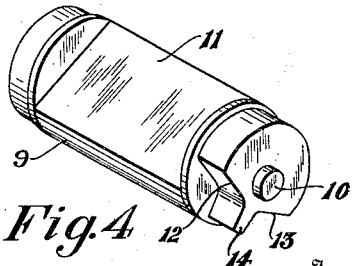


Fig. 4

Inventor

Otto A. Schoen

By Harry Grease

Attorney

Patented June 24, 1930 1,765,622

UNITED STATES PATENT OFFICE

OTTO A. SCHOEN, OF CANTON, OHIO, ASSIGNOR TO THE CLIMALENE COMPANY, OF CANTON, OHIO, A CORPORATION OF OHIO

DISPENSING DEVICE

Application filed July 26, 1928. Serial No. 295,471.

The invention relates to a device for dispensing powdered or granular material such as soap powders, water softeners and the like.

The objects of the improvement are to provide a device adapted to support a package of soap powder or the like and to dispense predetermined quantities of the contents thereof.

An embodiment of the invention is illustrated in the accompanying drawing, in which

Figure 1 is a front elevation of the improved dispensing device showing the package of soap powder or the like supported therein;

Fig. 2, a section taken substantially on the line 2—2, Fig. 1;

Fig. 3, a section on the line 3—3, Fig. 1; and

Fig. 4, a detached perspective view of the rotary valve.

Similar numerals refer to similar parts throughout the drawing.

The device may be formed in any suitable and well known manner and is preferably in the shape of a casting as illustrated and comprises the receptacle 5 of a size and shape to receive the lower end portion of a pasteboard box or carton 6 such as is used for containing soap powders, water softeners and the like.

Beneath the receptacle 5 and preferably formed integrally therewith is a cylindric valve casing 7 having an opening 8 in its upper side communicating with the interior of the receptacle 5.

The rotary valve 9 is mounted within the valve casing 7 and is preferably substantially cylindric in form and is provided with the journal pintles 10 at its ends by means of which it is journaled in the end walls of the valve casing.

Intermediate its ends the valve may be provided with the segmental cut-out portion 11 of any desired size to provide for a predetermined amount of the material to be dispensed with each operation of the valve. One end portion of the valve is cut away from each side of a radial line as shown at 12 and 13 and provided with the radial lug 14 intermediate the cut-out portions.

A tubular casing 15, having its axis at right angles to the axis of the valve casing, is located at one end portion of the valve casing and preferably formed integral therewith. A plunger 16 is slidably mounted within this tubular casing and provided in its upper surface, near its inner end, with a notch 17 adapted to receive the radial lug 14 of the valve.

A spring 18 is located in the tubular casing 15 between the back wall 19 thereof and the inner end of the plunger 16 to normally hold the plunger in the outward position, as best shown in Fig. 3, the angular face 13 of the valve resting upon the spring to limit the outward movement of the plunger. A button 20 may be provided at the outer end of the plunger to be depressed by the thumb or finger in order to operate the valve.

The valve casing is provided in its under side with an outlet opening 21 which communicates with the downwardly inclined discharge spout 22. In the normal position of the valve, the segmental cut-out portion or pocket 11 is located as best shown in Fig. 2, communicating with the inlet opening 8.

In operating the device, an opening is cut or torn in the bottom of the pasteboard box 6, containing the soap powder, water softener or other material to be dispensed as indicated at 23 and the box 6 is then placed in position in the receptacle 5 of the dispensing device as shown in Figs. 1 and 2.

It should be understood that the device is adapted to be fastened upon a wall above a sink or the like so that the same may be operated with one hand. If the operator desires to obtain some of the material from the box, to wash his hands, the hand may be inserted palm upward beneath the discharge spout 2 and the plunger 16 pushed backward or inward by a pressure of the thumb against the button 20.

The plunger may be depressed until the angular face 12 of the valve engages the upper surface of the plunger, limiting the movement thereof. In this position the valve is located in the dotted line position

shown in Fig. 2, cutting off the inlet opening 8 and forming communication between the pocket 11 of the valve and the outlet or discharge opening 21.

This permits the contents of the valve pocket 11 to be discharged through the spout 22 into the hand of the operator. The inlet opening 8 being cut off, it will be seen that after the pocket is emptied no more of the material can be obtained until the valve is operated again.

When the pressure upon the plunger 16 is released the spring will move the valve back to the position shown in Figs. 2 and 3, cutting off the discharge opening 21 and again forming communication between the inlet opening 8 and the pocket 11 of the valve, permitting the same to again fill, by gravity, with the powdered or granular material from the box 6.

It will be seen that in the same manner the material may be discharged directly into a pan or other receptacle by operating the plunger as above described. The pocket 11 in the valve may be of such size as to hold exactly one tablespoon or other measure of material whereby a known quantity of the material may be dispensed with each operation of the valve.

From the above it will be obvious that the improved dispensing device is adapted to use the original container, in which the material is sold, thus providing for displaying the same for advertising purposes and obviating the necessity of providing a receptacle in the dispensing device capable of holding the material.

I claim:

1. A dispensing device including a receptacle portion, a cylindric valve casing communicating with the receptacle through an inlet opening and provided at its opposite side with a discharge opening, a rotary valve within the casing and having a pocket normally communicating with the inlet opening, a lug upon one end portion of the valve, a plunger having a notch engaging said lug for rotating the valve to bring the pocket thereof into communication with the outlet opening, means upon the valve adjacent the lug cooperating with a portion of the plunger adjacent the notch for limiting the opening movement of the valve, and means for returning the valve to normal position.

2. A dispensing device including a receptacle portion, a cylindric valve casing communicating with the receptacle through an inlet opening and provided at its opposite side with a discharge opening, a rotary valve within the casing and having a pocket normally communicating with the inlet opening, a lug upon one end portion of the valve, a plunger having a notch engaging said lug for rotating the valve to bring the pocket thereof into communication with the outlet opening, means upon the valve adjacent the lug cooperating with a portion of the plunger adjacent the notch for limiting the opening movement of the valve, and spring means for returning the valve to normal position.

3. A dispensing device including a receptacle portion, a cylindric valve casing communicating with the receptacle through an inlet opening and provided at its opposite side with a discharge opening, a rotary valve within the casing and having a pocket normally communicating with the inlet opening, a plunger operatively associated with the valve for rotating the same to bring the pocket thereof into communication with the outlet opening, a spring aligned with the plunger for returning the valve to normal position and angular faces on the valve for contact with the plunger and spring for limiting the movement of the valve in each direction.

In testimony that I claim the above, I have hereunto subscribed my name.

OTTO A. SCHOEN.