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## OPERATING PLUG FOR FRAGRANCE DISPENSER

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2 Claims. (Cl. 222-162)

This invention relates to an operating plug for fragrance dispensers, and more particularly to such a plug for a dispenser adapted to fit within a wall-mounted receptacle.

A primary object of the invention is the provision of an improved plug which will insure the proper positioning of the dispenser, in its dispensing head, relative to the wall-mounted container.

An additional object of the invention is the provision of such a plug provided with flanges, which cooperate with corresponding shoulders on the inner side of the top of the wall-mounted dispenser, so arranged that the device must be properly positioned with the dispensing opening in the plug properly aligned with the dispensing opening in the container, in order that the container may be closed, improper mounting of the dispenser within the container rendering it impossible to close the container.

Still other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter, and shown in the accompanying drawing, wherein there is disclosed a preferred embodiment of this inventive concept.

In the drawing:

Figure 1 is a vertical longitudinal section taken substantially through the center line of the container, the dispenser being shown in elevation, with certain concealed portions thereof being indicated by dotted lines.

Fig. 2 is an enlarged sectional view taken substantially along the line 2-2 of Fig. 1 as viewed in the direction indicated by the arrows.

Fig. 3 is an enlarged sectional view taken substantially along the line 3-3 of Fig. 1 as viewed in the direction indicated by the arrows.

Fig. 4 is an enlarged sectional view taken substantially along the line 4-4 of Fig. 1 as viewed in the direction indicated by the arrows.

Fig. 5 is a perspective view of the plug per se, certain concealed parts thereof being indicated in dotted lines, and

Fig. 6 is a sectional view taken substantially along the line 6-6 of Fig. 5 as viewed in the direction indicated by the arrows.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring now to the drawings in detail, there is shown at 10, a wall-mounted fitting or support, of known design, and generally T-shaped in configuration, the mounting bracket being adapted to be secured to the wall or other surface upon which it is mounted as by means of screws 11. The ends of the cross arms 12 of the T are provided with offset portions, also of known construction, the purpose of which will be more fully described hereinafter.

A container or receptacle 13 is adapted to be mounted on the fitting 10. The container or receptacle 13 is generally arcuate in cross section, and is best shown in Fig.

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2, and is provided with interiorly positioned vertical flanges 14, which abut horizontal flanges 15, also of conventional design, the flanges being positioned on opposite sides of the receptacle, and adapted to engage the offset ends of the T-shaped supporting member.

The receptacle is provided with a bottom wall 16, which carries a lock 17, access to the keyhole thereof being provided through an aperture 18 in the bottom wall.

The lock 17 is of conventional design, and provided with a bolt which is adapted to engage in a keeper 19 in the supporting member for retaining the device against unauthorized removal.

Spaced above the lock 17 are a pair of oppositely disposed flanges 20, which are adapted to support the base of a conventional fragrance dispensing device 21, which includes a recessed bottom wall 21a, and a similarly recessed top wall 22, which is provided with a hollow piston 23, having a stem 24, through which the contents of the dispensing device 21 may be exuded upon pressure against the bottom of the dispenser.

All of the above is of known or conventional design. Means are provided for exerting pressure against the bottom of the dispenser, and take the form of a finger member 25, which projects outwardly through a slot 26 which extends into the side wall and the bottom wall of the receptacle 13. The finger member 25 is provided with an inwardly projecting extension 26a, which extends between two inwardly extending flanges 27 carried by the inside of the receptacle on opposite sides of the slot 26. A cross bar 28 extending between the flanges 27 is adapted to seat in a groove or channel 29 carried by the inwardly extending portion 26a, to provide a fulcrum therefor. A second inwardly extending projection 30 extends above the cross bar 29, and terminates in an upwardly projecting tip or finger 31, which is normally in engagement with the bottom of the dispenser 21. It will thus be seen that inward pressure on the finger member 25 will raise the dispenser, and in raising the dispenser will, in a manner to be more fully described hereinafter, depress the plunger 23 to exude the contents of the dispenser 21. The above described matter is largely conventional, or described in other of applicant's copending applications, and comprises no part of the instant invention.

Receptacle 13 is provided with an inclined top wall 35 having an opening 36 therein, and the underside of the top wall is provided with two substantially triangular spaced apart flanges 37.

The triangular members 37 are cut away on their inner sides adjacent their inner ends to form relatively thin flanges 38, the juncture of which with the body portion of the members 37 forms shoulders 39.

The operating plug which comprises a major feature of the instant invention includes a substantially rectangular block 40, having a central bore 41 therein which opens into a reduced diameter bore 42, forming a shoulder 43, the diameter of bore 41 being such as to accommodate the dispensing stem 24, the top of which seats against the shoulder 43. A reduced transverse dispensing opening 44 extends laterally from the bore 42. The block 40 is provided on its top with an indicating arrow 45, which indicates the direction of the opening of the dispensing passage 44.

The opposite sides of block 40 adjacent the rear thereof are provided with laterally projecting ears or flanges 46.

The dimensions of the block 40 are such that the body of the plug will pass smoothly but not loosely between the members 37, while the dimensions of the ears or flanges 46 are such that they will pass between the portions 38, and seat against the shoulders 39, when the device is in proper position. When the device is in such

position, the receptacle 13 may be slid smoothly over the offset portions of the T of the mounting member. However, in the event that the device is improperly inserted, no portion of the block will be permitted to pass the shoulders 39, since the longitudinal dimension of the block, that is, longitudinal in the sense of the direction indicated by the arrow 45, is such that while it will pass between the portions 38, the shoulders 39 will stop further passage. The same is also true if the device is reversed, with the arrow pointing in the opposite direction, since the flanges 46 will seat against the shoulders 39, and preclude further movement of the device into operating position. When such is the case, and the device is improperly employed, the result will be a protrusion rearwardly, through the open rear end of receptacle 13, of the fragrance dispenser 21, in such manner that the offset portions of the arm of the T will not be enabled to engage under the flanges 14, and, consequently, the device may not be mounted in an improper operating position.

It will thus be seen that only when the arrow 45 is in its proper position, and consequently the dispensing opening 44 aligned with the opening 36 of the top 35 of container 13, may the device be mounted, and hence, in order to mount the device at all, it is necessary that the parts be in proper operating position, thus overcoming any possibility of carelessness on the part of an attendant replenishing the fragrance dispensing device 21, for example, in having the dispensing opening 44 extending either against one of the side walls 37, or rearwardly into the interior of the container.

From the foregoing it will now be seen that there is herein provided an improved operating plug for fragrance dispensers, which accomplishes all of the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As various embodiments may be made of this inventive concept, and as various modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

What I claim is:

1. In a device of the character described, in combination, a fragrance dispenser of the type including a hollow stem upon depression of which the contents of the dispenser are exuded, an operating plug having a bore engaging over said stem and a transverse discharge passage communicating with said bore for discharging the contents of said dispenser laterally, said plug being of generally rectangular configuration, a pair of stop flanges on opposite sides adjacent the edge of the side opposite the opening of the discharge passage, said flanges being parallel to said bore and extending in a plane perpendicular to the plane of said passage, a container for said dispenser, a wall mounting for said container, said container having a top with an opening therein, and an open rear

portion, a pair of guide flanges on the underside of said top extending on opposite sides of said opening, said flanges being spaced apart a distance substantially equal to the width of said plug, shoulders formed on the confronting sides of said flanges, the spacing of said guide flanges beyond said shoulders being of a width to accommodate said stop flanges, abutment of said stop flanges with said shoulders insuring proper alignment of said passageway, said plug being so dimensioned as to preclude insertion beyond said shoulders if inserted sideways or in reversed position, whereby upon such sideways or reversed insertion, said dispenser will project from the open rear end of said container to preclude mounting of the same on said wall mounting.

2. In a device of the character described, in combination, a fragrance dispenser of the type including a hollow stem upon depression of which the contents of the dispenser are exuded, an operating plug having a bore engaging over said stem and a transverse discharge passage communicating with said bore for discharging the contents of said dispenser laterally, said plug being of generally rectangular configuration and having a pair of stop flanges on opposite sides adjacent the edge of the side opposite the opening of the discharge passage, said flanges being parallel to said bore and extending in a plane perpendicular to the plane of said passage, a container for said dispenser, a wall mounting for said container, said container having a top with an opening therein, and an open rear portion, a pair of guide flanges on the underside of said top extending on opposite sides of said opening, said flanges being spaced apart a distance substantially equal to the width of said plug, shoulders formed on the confronting sides of said flanges, the spacing of said guide flanges beyond said shoulders being of a width to accommodate said stop flanges, abutment of said stop flanges with said shoulders insuring proper alignment of said passageway, said plug being so dimensioned as to preclude insertion beyond said shoulders if inserted sideways or in reversed position, whereby upon such sideways or reversed insertion, said dispenser will project from the open rear end of said container to preclude mounting of the same on said wall mounting, and an indicating mark on the top of said plug showing the proper position of insertion to align said discharge passageway with said opening in said top.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

2,602,569	Ryan	July 8, 1952
2,602,700	Ryan	July 8, 1952
2,673,008	Ryan	Mar. 23, 1954
2,728,608	Marini	Dec. 27, 1955
2,761,594	Stroh	Sept. 4, 1956
2,821,435	Wenner	Jan. 28, 1958
2,821,436	Wenner	Jan. 28, 1958