

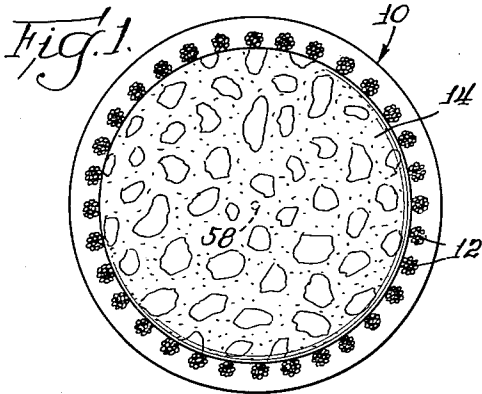
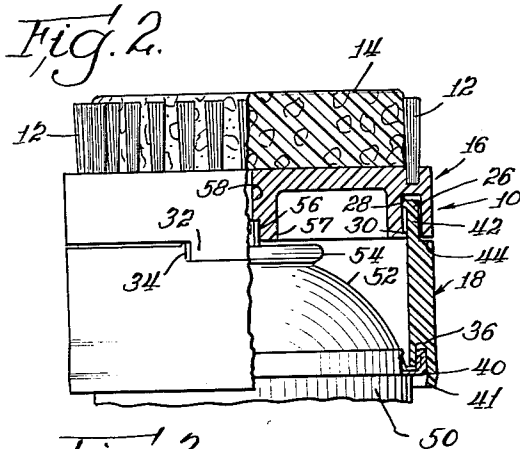
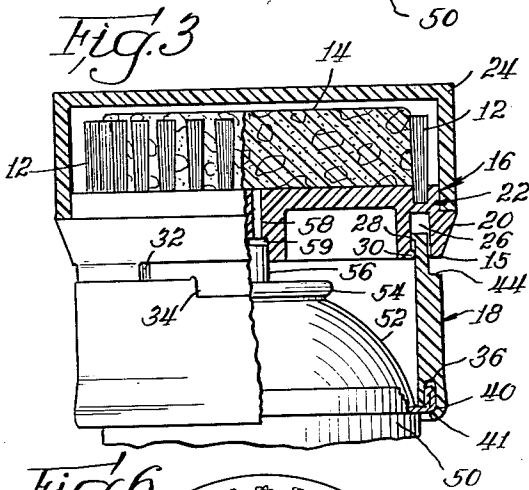
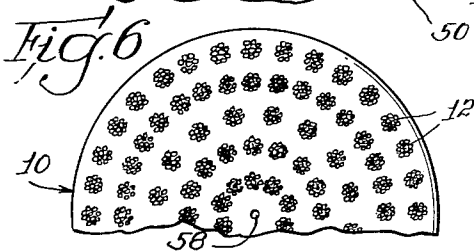
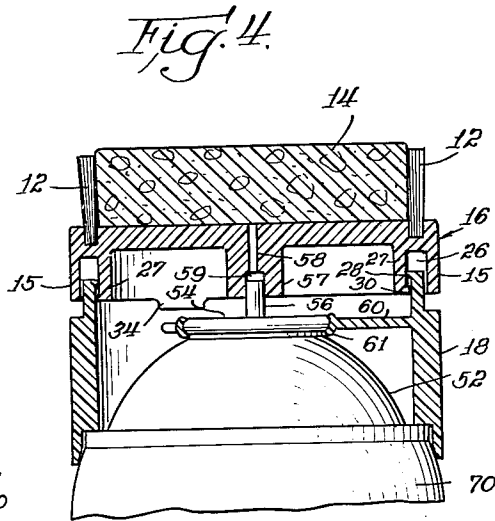
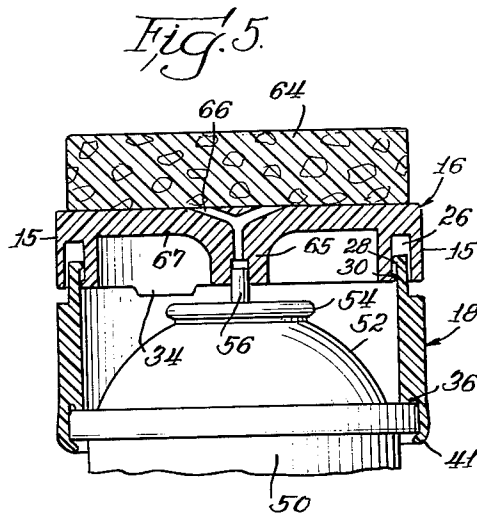
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APPLICATOR-SCRUBBER

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APPLICATOR-SCRUBBER

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4 Claims. (Cl. 15—552)

This invention relates to an applicator and/or scrubber, and more particularly it relates to an applicator-scrubber attachment for an aerosol container.

Today, a large number of products are being packaged in aerosol containers, and this number is continuously increasing. Carpet and upholstery cleaners, spot removers, oven cleaners, shoe polishes and creams are but a few examples of household products so packaged. In the automotive field, white side-wall cleaner, chrome cleaner, polishes and other types of automotive products, are being similarly packaged in aerosol containers.

Aerosol containers are preferred because they permit dispensing of the product directly onto the object so that an applicator or a brush can then be immediately used to perform the particular task at hand.

In certain instances, dispensing a product directly onto an object, although desirable, still requires that a separate brush or pad be used to spread and work the product in. Or else, a separate polisher is needed to polish the surface upon which the product has been applied. So, a separate applicator or scrubber or polishing means must be kept available. In some cases, this may be quite inconvenient. For example in shoe polish, it is inconvenient, particularly when traveling, to carry a separate polishing means because it may soil other items and also takes up valuable space in a person's luggage.

In other instances, such as in upholstery or carpet cleaning, it is more desirable to first apply the cleaner to a brush and then use the brush to work the cleaner into the upholstery or carpet. This approach accomplishes a better cleaning of the rug or upholstery.

Some attempts have been made with respect to scrubber attachments for aerosol upholstery and carpet cleaners, but the devices for attachment to aerosol cans have been crude, or expensive, or complicated in structure or difficulty assembled, or stored once used. The trade continues to seek a simple inexpensive brush applicator for ready attachment to aerosol cans.

An object of this invention is to provide a novel applicator-scrubber for attachment to an aerosol container.

Another object is to provide an applicator-scrubber which alleviates the above mentioned, as well as many other, disadvantages and instead provides numerous benefits not heretofore available.

Another object is to provide an applicator-scrubber for an aerosol container which may be inexpensively manufactured, by an injection molding technique.

A further object is to provide an applicator-scrubber for an aerosol container which may be used in any position.

A still further object is to provide an applicator-scrubber wherein the aerosol container can be utilized as the applicator or brush handle.

Another object is to provide an applicator-scrubber for an aerosol container which may have interchangeable accessory applicators therefor.

The novel applicator-scrubber, as seen in the drawing, comprises a brush or applicator support 16, affixed to a container or can-applying ring 18 in a manner wherein the support can either actuate the aerosol valve or be locked against such actuation so that the can may be utilized as the applicator or scrubber handle.

More particularly, the applicator-scrubber comprises an inverted cup-shaped brush or applicator support 16, the

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wall of which is slideably affixed to a can applying ring 18. The wall has a lip locking means therein to enable a snap-fit attachment to said ring. In addition, it contains a series of tabs 32 which coact with recesses 34 or ledge 44 in the ring 18 to permit actuation of the aerosol valve or non-actuation so that the can may be used as the applicator or brush handle. The support has an orifice 58 in its mid area to permit direct application of the contents of the aerosol can to the applicator or brush.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawing, in which:

FIGURE 1 is a top view of an applicator-scrubber for an aerosol container, illustrative of the invention;

FIGURE 2 is a side, partially sectionalized view of an illustrative applicator-scrubber attachment, constructed in accordance with one embodiment of the invention, with the applicator-scrubber attachment shown in its dispensing position;

FIGURE 3 is a side, partially sectionalized view of the illustrative applicator-scrubber attachment of FIG. 2, with the attachment shown positioned so that a product cannot be dispensed;

FIGURE 4 is a side cross sectional view of an illustrative applicator-scrubber for an aerosol container, constructed in accordance with a second embodiment of the invention;

FIGURE 5 is a side cross sectional view of an applicator-scrubber, constructed in accordance with a third embodiment of the invention; and

FIGURE 6 is a top view of still another embodiment of an applicator-scrubber.

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

Referring now to FIGS. 1-3, the applicator-scrubber 10 connected to the aerosol container 50 comprises an inverted cup-shaped brush or applicator support 16. A downwardly extending centrally positioned inner skirt 57 within the cup cavity acts as the valve stem receiving cavity 59. A vertical orifice 58 leads upwardly from said cavity. The wall of the applicator support 16 comprises an inverted channel 26 with a small outwardly protruding lip 30 formed on its inner wall 27. Mounted atop the closed end of the support 16 are a sponge applicator 14 and a number of bristles or brushes 12, which are arranged about its periphery. The sponge 14 may be secured thereto by means of adhesive or the like, and the bristles or brushes 12 may be secured thereto by embedding them in the support material in the usual manner utilized for making brushes.

The applicator-scrubber 10 also has a tubular shaped can-applying ring 18, the top of which has a step 44 therein. A small inwardly protruding lip 28, similar to lip 30 of channel 26, is formed on the inside surface of ring 18. The bottom edge of ring 18 may have an inverted can-affixing channel 36 formed therein which snap-fits onto rim 40 of the aerosol container 50. It is anchored to the rim 40 by anchoring tongue 41. Where a two piece container is utilized, no such channel 36 need be used. This is illustrated in FIG. 4. Instead, the applicator-scrubber is secured to the valve securing rim as described in detail below.

The applicator support 16 and the can-applying ring 18 are preferably molded in two parts, out of thermoplastic material, such as polyethylene, polypropylene, Mylar or nylon and the like. Support 16 and ring 18 are secured to one another, by snapping the upper portion of ring 18 into channel 26 of support 16. The protruding lips 28 and 30 engage one another to form a locking means thereby preventing the upper and lower portions from being thereafter separated from each other,

unless, of course, great force is utilized to snap the fit open.

The container 50, of FIGS. 1 to 3 and 5 is known, in the trade as a three-piece dome container, that is, it is formed of three pieces, a cylindrical body, a bottom, and a dome with a central orifice therein for receiving an aerosol valve. Such a container normally has a rim 40, formed at the point where the dome and the body are joined. In the embodiment shown in FIGS. 1, 3 and 5 this ridge acts to anchor the ring 18 to the can when the rim is forceably urged into the can-affixing channel 36 of can-applying ring 18. Locking lip 41 acts to assist in retaining the rim within channel 36.

In using the applicator-scrubber 10 after it is attached to the aerosol container 50, as described above, brush support 16 is rotated to seat valve actuation tabs 32 in recesses 34, as shown in FIG. 2. In this position, the top of the valve stem cavity 59 engages the valve stem 56 and, when pressure is applied to the applicator-scrubber, the valve stem 56 is depressed to release the packaged product. The dispensed product then flows out through the valve stem and then out through orifice 58 to the sponge 14 which absorbs it. The attachment is retained in this position until the desired amount of product is absorbed by the sponge, and then the brush support 16 is raised and rotated so that valve actuation tabs 32 are seated upon ledge 44 of ring 18, as shown in FIG. 3. In this position, pressure may be exerted upon the applicator-scrubber without dispensing any of the packaged product. Thereafter, the can body 50 can be utilized as the brush or applicator handle and the object may be scrubbed, polished, or cleaned, depending on the product in the can. It might be noted that such operation may be easily performed with only one hand. No additional brushes or accessory equipment is necessary.

The aerosol container utilized with the applicator-scrubber is preferably the type which may be used in any position, that is, the valve employed either does not have a dip tube connected to the valve tail or else an aerosol valve usable in any position is used.

In FIG. 4 is shown an applicator-scrubber 10 which is adapted to be secured to an aerosol container of the type known in the trade as a "two-piece crown can." These containers have a dome, such as 52, formed as an integral part of the body of the can. They do not have a ridge, such as previously described. For such a can, the mid-section of ring 18 has a valve attaching spider which comprises a number of fingers 60 extending inwardly towards the valve housing rim 59. The fingers terminate as a common locking ring 61 which is formed to lock itself to the valve housing rim 54. This locking ring 61 performs the same function as can-affixing channel 36 performed in the previously described embodiment. It may be further noted that in this case the channel 36 may be eliminated, and the lower end of the lower portion 18 formed as a flush surface.

In FIG. 5, the applicator-scrubber attachment 10 has a slightly different dispensing orifice arrangement. Also a pad 64 which may be used, for example, for polishing shoes or the like, is attached to the upper portion 16, instead of the sponge 14 and the bristle or brushes 12. In all other respects, the applicator-scrubber is identical to the one shown in FIGS. 1-3.

The orifice arrangement in this case has a number of radial slots 66 extending outwardly from the orifice. Thus the product, when dispensed, also feeds out through the slots 66 and the product is thereby dispensed to various areas of the pad to saturate it more completely.

In FIG. 6 is shown a partial top view of the upper portion of an applicator-scrubber which utilizes only bristles or brushes 12 thereon. This arrangement may be found useful when only a scrubbing action is desired, for example, when cleaning carpeting. It may be noted that the upper portion of the applicator-scrubber is interchangeable with any one of the several different types

of sponge, bristle or brush, or pad combinations. The applicator-scrubber is therefore very versatile since any one of a number of different jobs may be performed simply by attaching an upper portion thereto which has the proper combination of sponges, brushes, or pads.

It might also be noted from FIG. 3 that a cap 24 may be utilized for the applicator-scrubber. The cap has an inverted cup-shape and abuts, when in place, against cap rim 20. Prior to retail sale, the manufacturer may apply a shrink sleeve, or seal the cap to the applicator-scrubber in a manner whereby the latter cannot be actuated to open the aerosol valve to permit pilferage and/or accidental discharge of the contents of the aerosol can. Such a cap also serves a useful function after first use—it shields the applicator head from contact with other items. For example, as a shoe polish applicator, it is desirable to shield the head to prevent staining of other items and to keep the pad moist with polish.

The parts which comprise the applicator-scrubber have been particularly designed for manufacture using plastic injection molding technique. However, other methods, such as casting, molding machining and the like could be used. With respect to the material out of which the parts are made, plastic, such as polyethylene, polypropylene, ethyl cellulose, cellulose acetate butyrate, nylon, polyester and similar plastics can be used. Some are particularly useful to affect the various snap-fit assembly techniques discussed.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently obtained and, since certain changes may be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention, which, as a matter of language, might be said to fall therebetween.

Now that the invention has been described, what I claim as new and desire to secure by Letters Patent is:

1. An applicator-scrubber for attachment to an aerosol container with a valve therefor comprising an applicator support with an applicator thereon, a container applying ring, said ring and said support having interlocking means whereby said ring and support are rotatably engaged, said interlocking means comprising an annular channel on said applicator support into which the wall of said container applying ring fits and snap-fit means to maintain said wall of said ring within said channel, means on said ring to affix it to said container and an orifice within said applicator support and means on said orifice for attachment to the valve of said aerosol can whereby the contents of said aerosol container may be dispensed directly onto said applicator.

2. The applicator-scrubber of claim 1 wherein said snap-fit means comprises an outwardly extending lip on the inner wall of said channel and an inwardly flaring lip on the inside upper wall of said ring which engages and snaps over said lip of said channel when said applicator-scrubber is assembled to lock said parts together.

3. An applicator-scrubber for attachment to an aerosol container with a valve therefor comprising an applicator support with an applicator thereon, a container applying ring, said ring and said support having interlocking means whereby said ring and support are rotatably engaged, said interlocking means comprising an annular channel on said applicator support into which the wall of said container applying ring fits, said channel having a plurality of valve actuation tabs extending downwardly therefrom and said ring having a similar number of recesses for receiving said tabs and a ledge surface thereon whereby said applicator support may be rotated on said ring from a valve

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active to a valve inactive position, and snap fit means to maintain said wall of said ring within said channel, means on said ring to affix it to said container and an orifice within said applicator support and means on said orifice for attachment to the valve of said aerosol can whereby the contents of said aerosol container may be dispensed directly onto said applicator.

4. An applicator-scrubber for attachment to an aerosol container with a valve and a valve stem and a valve housing rim therefor comprising an applicator support with an applicator thereon, a cylindrical means supporting the applicator support on said container, said cylindrical means and said support having interlocking means whereby said cylindrical means and support are rotatably engaged, means on a portion of said cylindrical means to affix it to said container, said means comprising inwardly extending fingers engaging said valve housing rim

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to form a common locking ring which can lock itself to said valve housing rim, and an opening through said applicator support defining an orifice and means on the periphery of said orifice engageable with said valve stem whereby the contents of said aerosol container may be dispensed directly into said applicator.

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