

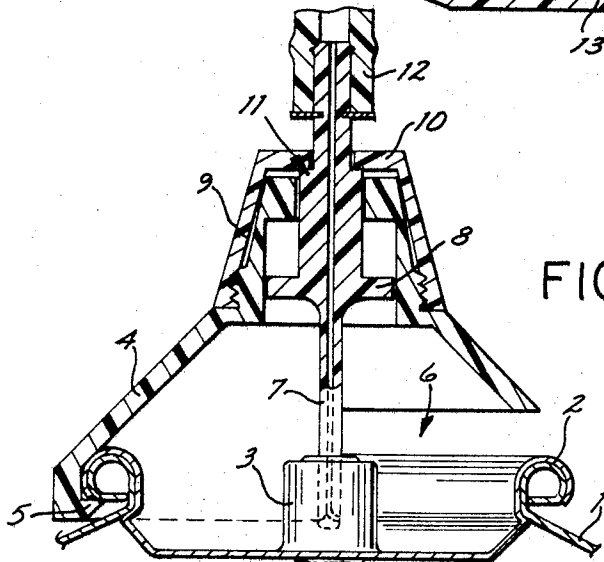
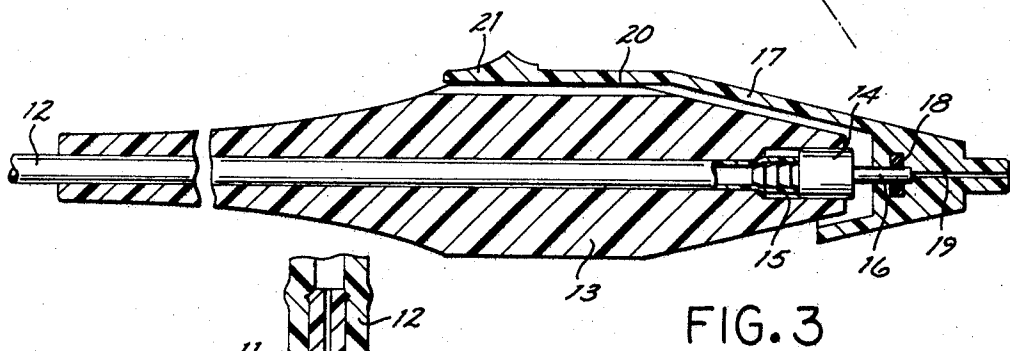
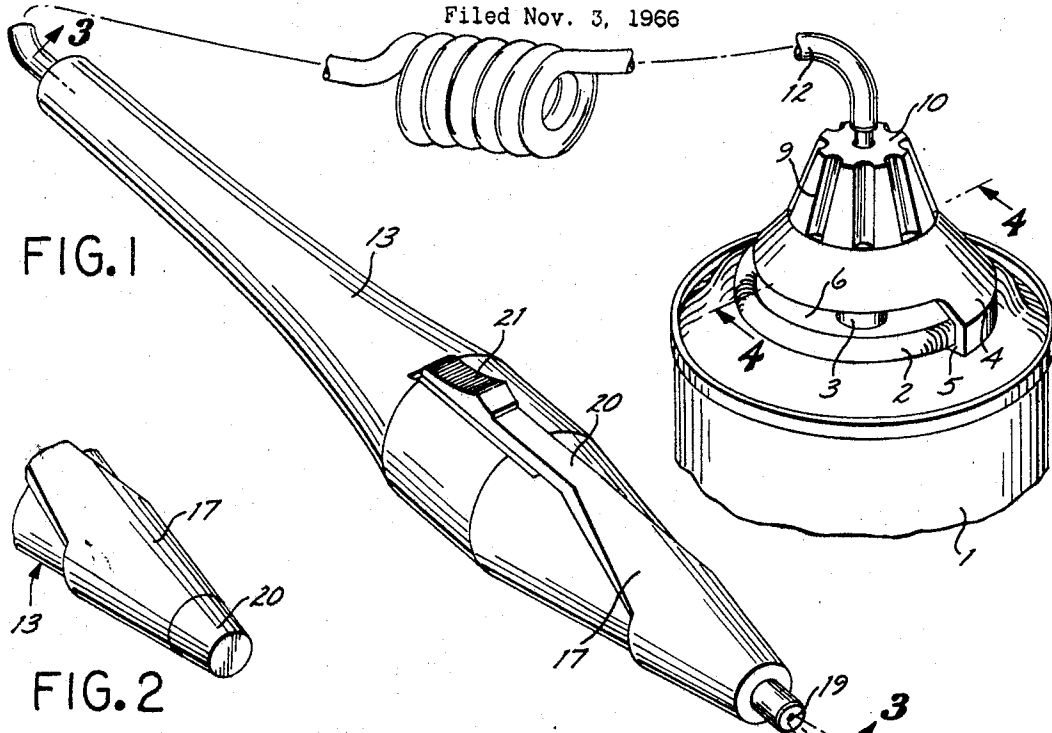
Feb. 18, 1969

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3,428,224

AEROSOL COATINGS APPLICATOR

Filed Nov. 3, 1966



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3,428,224

AEROSOL COATINGS APPLICATOR

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Filed Nov. 3, 1966, Ser. No. 591,863

U.S. Cl. 222-402.13

5 Claims

Int. Cl. B65d 83/14, 47/08, 47/20

ABSTRACT OF THE DISCLOSURE

In order that the material within a pressurized container may be effectively delivered to the desired surface, a flexible tube is used which extends from the pressurized container to a valve which is carried in the hand of the user. This flexible tube must be easily attachable to the pressurized container by a removable cap, and also the valve in the nozzle must be readily operable by the fingers of the user. Also the applicator must be reuseable on a pressurized can so that the same applicator can be used for a considerable period of time.

This invention relates to an aerosol coatings applicator whereby a liquid coating, such as paint, medicinal preparations, etc., may be more effectively applied to a surface by the user. The term "aerosol" applies to any pressurized container in which a liquid coating is packaged, and from which the coating may be applied to any surface.

An object of our invention is to provide a novel coatings applicator, and particularly an attachment which can be affixed to an aerosol or pressurized can containing a coatings fluid under pressure; the applicator including a novel means of attaching a fitting or cap to the aerosol can and a wand or sprayer, the valve of which is controllable with the finger, and where the valve is placed very close to the outer tip of the spray wand or tube.

Another object of our invention is to provide a novel aerosol coatings applicator in which the pressurized vessel or aerosol can may be placed at a point remote from where the coating is being applied.

Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detailed description and the appended claims.

In the drawing

FIGURE 1 is a perspective view of our aerosol coatings applicator.

FIGURE 2 is a fragmentary perspective view of the tip of the spray applicator.

FIGURE 3 is a sectional view taken on line 3-3 of FIGURE 1.

FIGURE 4 is a sectional view taken on line 4-4 of FIGURE 1.

Referring more particularly to the drawing, the numeral 1 indicates an aerosol or pressurized can of the usual and well known type in which the coating material is packaged, all of which is usual and well known in the art. A flanged disk 2 is fixedly mounted on the upper end of the can 1, and this disk is identical in diameter and shape on all aerosol cans now on the market. A valve conduit 3 is positioned in the center of the disk 2 and projects upwardly therefrom, substantially as shown in FIGURE 4. The valve in the conduit 3 is of the push-pull or vertical movement type so that it may be depressed to open the same, as will be subsequently described. When the valve in the conduit 3 is depressed and, therefore, opened the fluid material will flow out of the can 1 under pressure. The patent to Green, No. 2,731,298, granted Jan. 17, 1956, illustrates this valve construction.

A coupling member or cap 4 is formed with an inwardly projecting lip 5 which fits under the flanged disk

2, as shown in FIGURES 1 and 4. The flange 5 is semicircular in shape and can, therefore, be slipped onto the flanged disk 2 by a sidewise or horizontal movement, that is, there is a semicircular opening 6 formed on the cap 4. To hold the cap 4 securely in position on the top of the aerosol can 1, we provide a prong 7 which projects downwardly from the piston 8. The prong 7 is hollow so that fluid can flow vertically therethrough when the prong 7 opens or depresses the valve in the member 3. A nut 9 screws onto the upper end of the cap 4 and is provided with an upper wall 10 to engage a shoulder 11 on the prong 7; thus when the nut 9 is screwed tightly onto the top of the cap 4 the prong 7 will be forced into the valve conduit 3 to open the valve therein and permit fluid under pressure to flow into the flexible hose or conduit 12. The prong 7, being securely inserted in the valve member 3, will effectively hold the cap 4 in position against accidental displacement.

The applicator or nozzle 13 is mounted on the outer end of the conduit or hose 12 and the wand is hollow to receive the hose, as shown in FIGURE 3. A valve 14, preferably of the tilt to open type, is slidably mounted in the outer end of the nozzle 13 in an appropriately shaped recess 15. By tilting the pin 16 sideways the valve 14 will be opened, thus permitting fluid to flow through the hollow pin 16.

An actuator 17 is operated by the finger of the user, and this actuator is slidably mounted on the pin 16 and is provided with an appropriate hole or recess to receive the pin. An O-ring 18 in the actuator will assist in holding the actuator in proper position. A small hole 19 leads to the tip of the actuator and can be enclosed by a thimble 20 to protect the tip and prevent dirt from entering the small hole 19. A finger 20 projects rearwardly on the actuator 17 and may be depressed by engaging the shaped tip 21 when it is desired to spray the coating from the can 1. Depressing the finger 20 will tilt the pin 16, thus opening the valve 14 and permitting fluid to flow from the nozzle 13. The fluid material flows through the flexible hose 12 and thence to the valve 14, as previously described. When pressure is released from the actuator 20 the valve 14 will automatically close, due to the built-in spring construction in that valve, all of which is usual and well known in the art. The actuator 17 is larger in inside diameter than the nozzle 13, so that the actuator may readily be slightly tilted to permit the valve 14 to be opened, as previously described.

Having described our invention, we claim:

1. An aerosol coatings applicator attachable to an aerosol can having an annular flanged disk and a discharge valve therein, said applicator comprising a cap, means on the cap engageable with the flanged disk, a prong on the cap engageable with the discharge valve to open the same, a nozzle, a valve means in said nozzle, a flexible hose extending from the prong to said valve means, and manually operable means on the nozzle to engage and actuate said valve means, and said means on the cap engageable with the flanged disk comprising a semicircular flange, and said prong fitting into the discharge valve to hold the cap in position on the can.

2. An aerosol coatings applicator as recited in claim 1, and said valve means in the nozzle including a hollow pin actuator thereon engaged by the manually operable means to tilt said pin.

3. An aerosol coatings applicator as recited in claim 1, said manually operable means consisting of a sleeve tiltably mounted on the nozzle, said sleeve engaging the valve means to actuate the valve.

4. An aerosol coatings applicator as recited in claim 1, and said means on the cap engageable with the flanged disk comprising a semicircular flange, and said prong fitting into the discharge valve to hold the cap in position

on the can, said manually operable means consisting of a sleeve tiltably mounted on the nozzle, said sleeve engaging the valve means to actuate the valve.

5. An aerosol coatings applicator as recited in claim 1, and said means on the cap engageable with the flanged disk comprising a semicircular flange, and said prong fitting into the discharge valve to hold the cap in position on the can, said valve means in the nozzle including a hollow pin actuator thereon engaged by the manually operable means to tilt said pin, said manually operable means consisting of a sleeve tiltably mounted on the nozzle, said sleeve engaging the valve means to actuate the valve.

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U.S. Cl. X.R.

222—402.14, 402.21, 529