Aug. 10, 1965 N. BERGER 3,199,743

POWDER DISPENSING DEVICE

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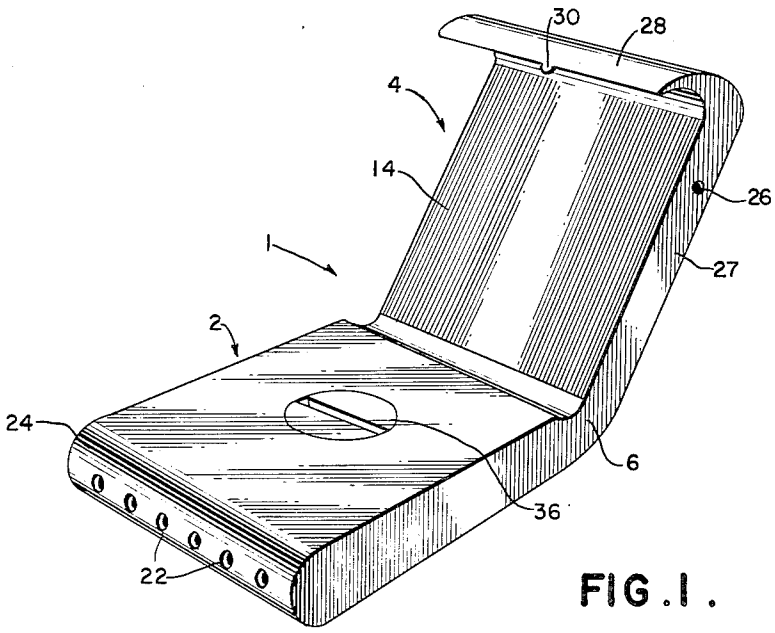


FIG. 1.

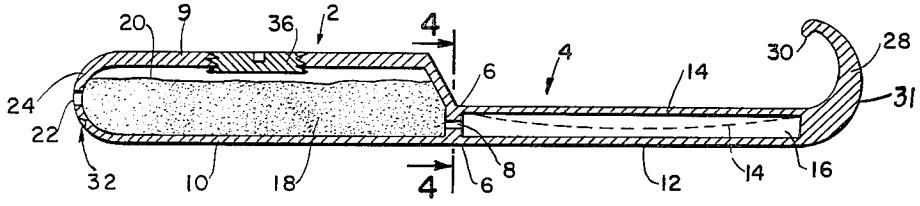


FIG. 2.

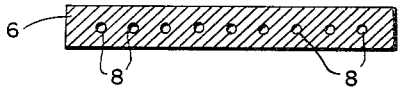


FIG. 4.

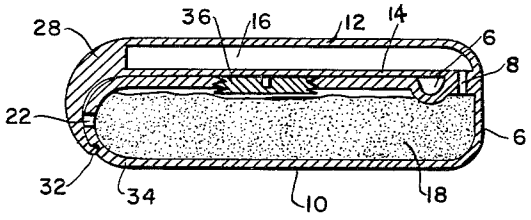


FIG. 3.

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POWDER DISPENSING DEVICE

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This invention relates generally to powder dispensing devices and more particularly to a compact dispensing unit especially suitable to the ends of ejecting cosmetic, deodorant or dessicant type powders into cramped or hard-to-reach places, the unit being further conveniently shaped for handling and carrying purposes.

According, and consonant with the foregoing, the instant invention has for an object the provision of a powder dispenser which includes a squeeze section connected to the powder-containing section, said squeeze section serving to extend the length of the dispensing unit when the latter is in the operative position, the length of the unit being substantially reducible in size for convenience of storage thereof.

Another object of the present invention is to provide a powder dispenser of the foregoing character wherein the squeeze section is concealed when the device is in the inoperative position whereby the inadvertent dispensation of powder is precluded.

A further object of this invention resides in the provision of a compact powder dispensing device wherein the squeeze section includes means whereby the latter is rendered removably securable in superposition with respect to the powder-containing and dispensing section.

Another object of the present invention resides in the provision of a powder dispensing device which may be formed extremely thin of configuration and which, therefore, will enable placement thereof within narrow and otherwise inaccessible places.

Another general object of the present invention is to provide a device of the described character which will be simple in structure, economical of manufacture, extremely pleasing of appearance, and highly effective in use.

Other objects and advantages of the instant powder dispensing device will be set forth in part hereinafter and in part will be obvious herefrom, or may be learned by practice of the invention, the same being realized and attained by means of the structure defined and pointed out in the appended claims.

The accompanying drawings referred to herein and constituting a part hereof, illustrate one embodiment of the invention, and together with the description, serve to explain the principles of the invention.

FIGURE 1 is a perspective view of the powder dispensing device illustrated in opened operative form;

FIGURE 2 is a side elevational cross-sectional view of the device shown in opened operative position;

FIGURE 3 is a side elevational cross-sectional view of the device shown in closed inoperative position; and

FIGURE 4 is a view taken along line 4—4 of FIGURE 2.

Referring now in detail to the present preferred embodiment of the invention illustrated in the accompanying drawings, FIGURE 1 shows the powder dispensing device designated generally by numeral 1, the partially unfolded position thereof being illustrative of the flexible connection provided between the body sections of the device as more particularly described hereinbelow.

As more specifically disclosed in FIGURES 2 and 3 of the drawings, said device is comprised of first and second hollow body sections 2 and 4, respectively, said sections being sealingly and flexibly connected at common end region 6, the latter being disposed substantially centrally of the device when arranged in the completely opened position shown in FIGURE 2. Apertures 8 are

provided as shown through said common end region to thus provide communication between the hollow interiors of said sections.

The entire device is preferably constructed of plastic such as styrene or phenolic resin although metal, wood or other suitable material, natural or synthetic, may be utilized.

Hollow body section 2 includes a pair of rigid opposing wall surfaces 9 and 10, section 4, however, being comprised of a rigid wall 12 and a resilient opposing wall 14, the latter being formed of relatively thin polyethylene or rubber whereby when depressed by the finger of the user the volume of chamber 16 of section 4 will be decreased to thereby force air contained therein into chamber 18 of section 2 via apertures 8. The powder 20, upon depression of wall 14 as shown in broken line designation in FIGURE 2 will as expected, force powder through openings 22 which constitute discharge ports provided through the free end 24 of section 2. Air vent 26 is provided through the side wall 27 of section 4 as shown in FIGURE 1, said vent being sufficiently small so as not to release the air being squeezed out of section 4 when wall 14 is depressed, but to rather permit the hollow chamber 16 to be slowly replenished with air upon release of said wall 14.

As shown in FIGURE 3, sections 2 and 4 are foldable at common end region 6, the materials uniting said sections at the common end region being flexible to hingedly relate said sections thereat whereby said sections may be arranged to superpose one another. Accordingly, in accordance with this disclosure, the placement of said sections into mutual superposition will form a compact unit as illustrated in FIGURE 3 of the drawings, wherein the resilient wall 14 will be disposed contiguously with respect to rigid wall surface 9, resilient wall 14 being thereby protected against inadvertently applied pressures which would result in discharge of powder through said discharge ports 22.

As shown in the drawings end 31 of section 4 is provided with a laterally extending portion 28 adjacently of resilient wall 14 and substantially at a right angle therewith, said portion 28 being a closure cap which overlies said discharge ports to preclude discharge therefrom when said sections are mutually superposed.

The arcuate configuration of said closure cap 28 enables a complementing fitting relation between said cap and the convex configuration of aforesaid end 24. It will be appreciated that the shape of the closure cap and of end 24 as well may be varied for aesthetic purposes without interfering with the functional ends thereof.

A catch type fastener 30 is provided as shown at the extremity of the closure cap, said fastener being receivable within indent 32 provided within wall portion 34 of section 2, and serving to retain said sections in the mutually superposed position shown in FIGURE 3.

To permit chamber 18 of section 2 to be loaded with powder, filler plug 36 is provided, said filler plug being threadedly received within wall 9 of said section 2. It will be understood that said plug may be press fitted in lieu of the threaded arrangement shown.

Although the preferred embodiment of the powder dispensing device structure has been described, it will be understood that within the purview of this invention various changes may be made in the forms, details, proportion and arrangement of parts, the combination thereof and mode of operation, which generally stated consists in a device capable of carrying out the objects set forth as described and defined in the appended claims.

What is claimed is:

1. A powder dispensing unit comprising first and second hollow body sections, said sections being sealingly and flexibly connected at a common end region, the lat-

ter having at least one aperture therewithin to provide communication interiorly of said body sections, said first section including a pair of rigid opposing wall surfaces, said second section having a pair of opposing wall surfaces, one of the latter being rigid and the other resilient, a filler plug removably disposed within one wall of said first section and a plurality of discharge ports disposed through the free end thereof, the free end of said second section including a closure cap integral therewith, said sections being foldable at said common end region into mutual superposition to form a compact unit wherein the resilient wall of said second section is disposed contiguously with respect to one of the rigid wall surfaces of said first section, and wherein said closure cap will overlie said discharge ports when said sections are mutually superposed.

2. A powder dispensing unit comprising first and second hollow sections, said sections being sealingly and flexibly connected at a common end region, the latter having at least one aperture therewithin to provide communication interiorly of said body sections, said first section including a pair of opposing wall surfaces, said second section having a pair of opposing wall surfaces, at least a portion of the latter being resilient, at least one discharge port disposed through the free end of said first section, said sections being foldable at said common end region into mutual superposition to form a compact unit wherein said resilient portion is concealed against pressure exerted externally of the folded unit.

3. A powder dispensing unit as set forth in claim 2, wherein discharge port closure means are provided integrally of said second section.

4. A powder dispensing unit as set forth in claim 2 wherein a filler plug is removably connected to said first section.

5. A powder dispensing unit comprising first and second hollow body sections, said sections being sealingly and flexibly connected at a common end region, the latter having at least one aperture therewithin to provide communication interiorly of said body sections, said first section including a pair of rigid opposing wall surfaces, said second section having a pair of opposing wall surfaces, one of the latter being rigid and the other being resilient, a filler plug removably disposed within

one wall of said first section and a plurality of discharge ports disposed through the free end thereof, the free end of said second section having a closure cap extending laterally thereof and adjacently of said resilient wall surface, said sections being foldable along said common end region into mutual superposition to form a compact unit wherein the resilient wall of said second section is disposed contiguously with respect to one of the rigid wall surfaces of said first section, and wherein said closure cap will overlie said discharge ports when said sections are mutually superposed.

6. A powder dispensing unit comprising first and second body sections, said sections being sealingly and flexibly connected at a common end region, the latter having at least one aperture therewithin to provide communication interiorly of said body sections, said first body section being rigid and being adapted to contain powder, a discharge port within said first body section, said second body section having a resilient wall surface, whereby depression of said latter surface will effectuate discharge of said powder through said discharge port, said sections being foldable into mutual superposition and means for retaining said sections in said superposition.

7. A powder dispensing unit comprising first and second body sections, said sections being sealingly and flexibly connected at a common end region, the latter having at least one aperture therewithin to provide communication interiorly of said body sections, said first body section being adapted to contain powder, a discharge port within said first body section, said second body section having a resilient wall surface, whereby depression of said latter surface will effectuate discharge of said powder through said discharge port, and said sections being foldable into mutual superposition.

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