United States Patent

[11] 3,630,211

[72] Inventor **David Seidler**
69-10 108th St., Forest Hills, N.Y. 11375

[21] Appl. No. **866**
[22] Filed **Jan. 6, 1970**
[45] Patented **Dec. 28, 1971**

[54] **EYE SHADOW POWDER DISPENSER**
2 Claims, 5 Drawing Figs.

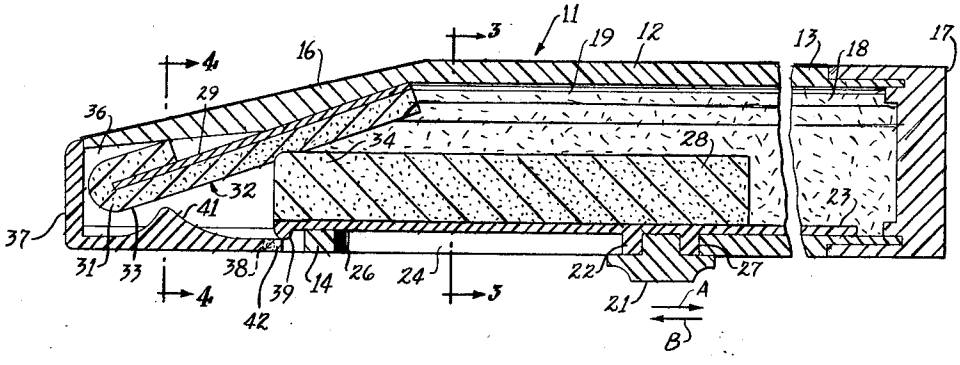
[52] **U.S. Cl.** **132/88.5,** 401/59
[51] **Int. Cl.** **A45d 40/30**
[50] **Field of Search** 132/88.5, 75.3, 76.2; 206/56; 401/59, 60, 122

[56] **References Cited**
UNITED STATES PATENTS

2,055,414 9/1936 Lehmann 401/59
3,084,374 4/1963 Ziegler 401/122

Primary Examiner—Louis G. Mancene
Assistant Examiner—Gregory E. McNeill
Attorney—Ernest F. Marmorek

ABSTRACT: A dispensing device for use in connection with applying a flowable material to a surface such as an eyelid, has a walled casing structure closed at one end thereby holding the particular material and open at the other so as to form an exit passage for the material. Means operable to open and close the exit passage and means for dispensing and applying the material, comprise an applicator that moves in opposite directions by moving means so as to receive the material some of which is applied to the surface and wiper means operable to remove any excess material from the applicator prior to application to said surface.



PATENTED DEC 28 1971

3,630,211

SHEET 1 OF 2

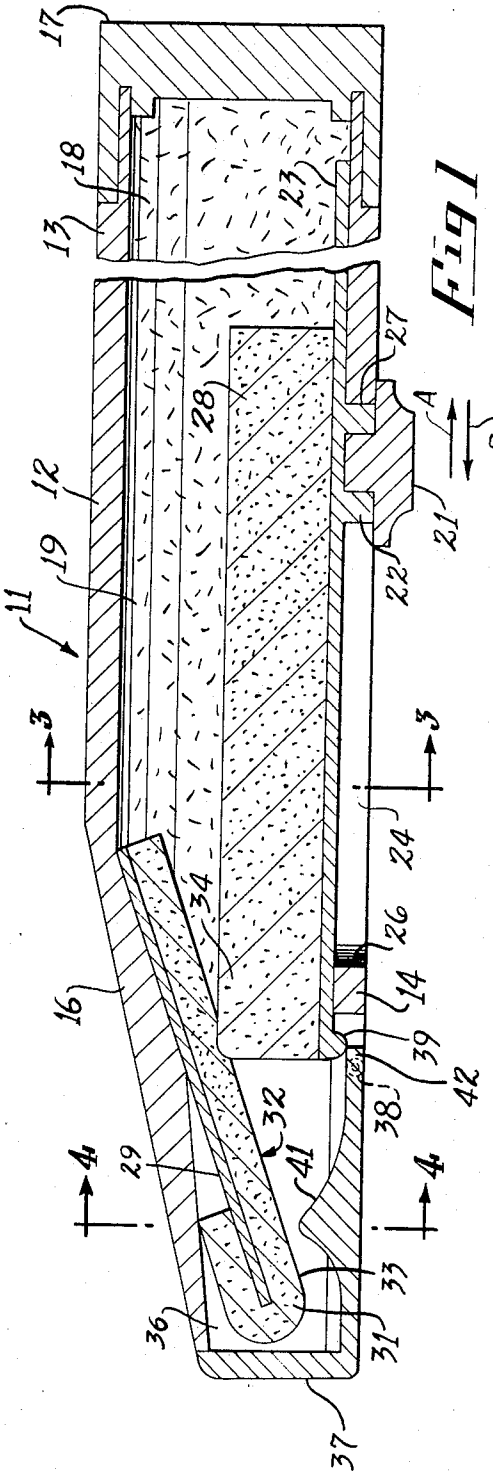


Fig 1

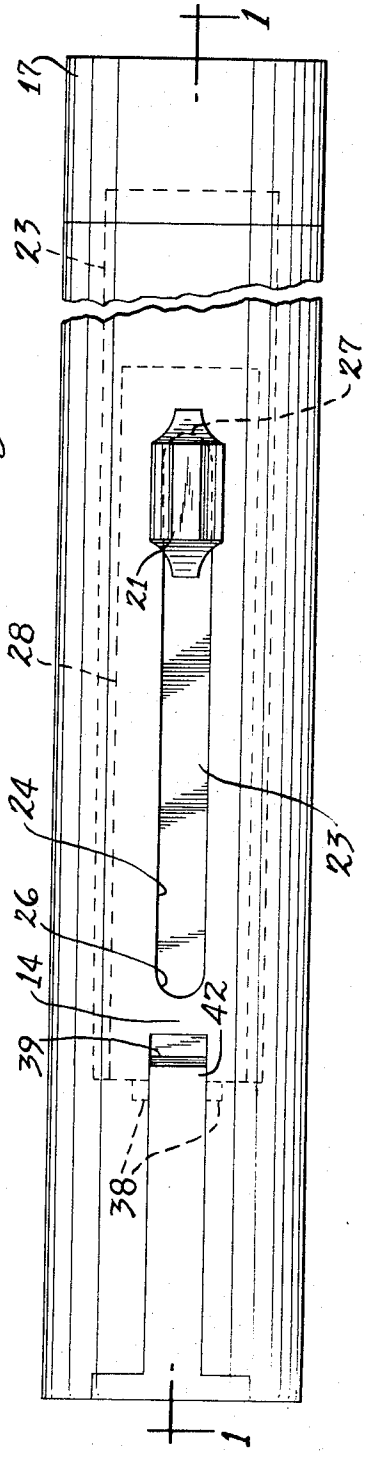


Fig 2

INVENTOR:
DAVID SEIDLER,
BY Edward A. Marwood
HIS ATTORNEY.

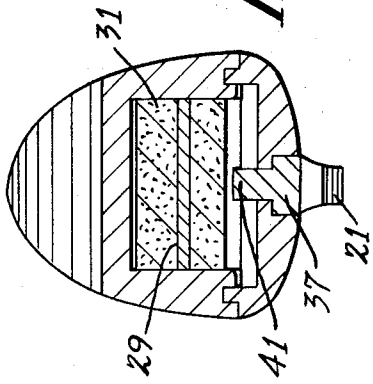


Fig 4

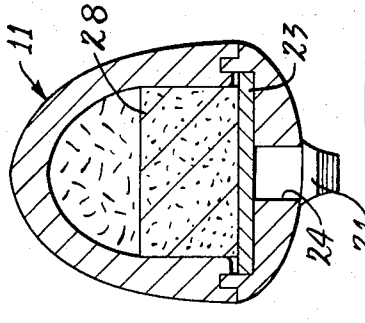


Fig 3

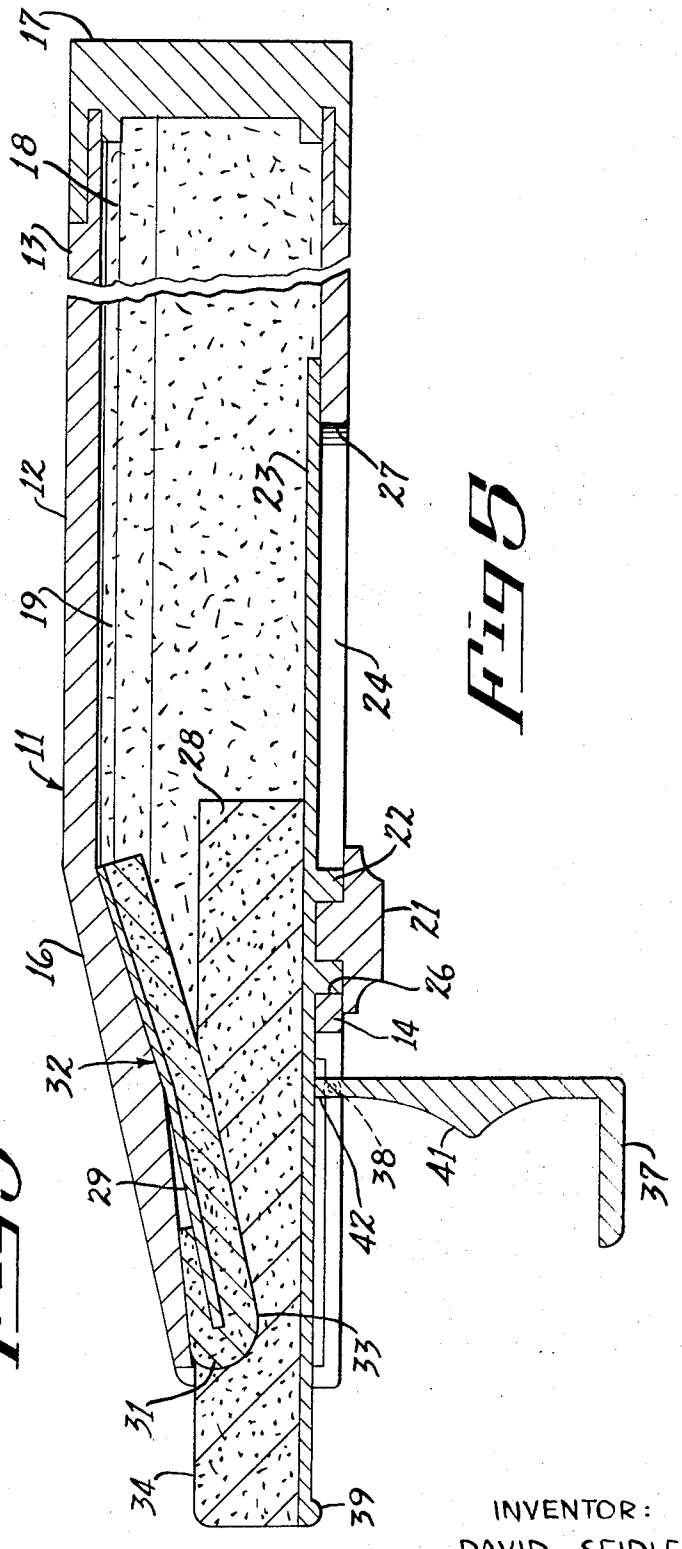


Fig 5

INVENTOR:
DAVID SEIDLER,
BY Edmund A. Marmorek,
HIS ATTORNEY.

EYE SHADOW POWDER DISPENSER

BACKGROUND OF THE INVENTION

The invention relates to dispensers, and relates more particularly to dispensers for dispensing onto a surface flowable material; still more particularly, the invention relates to a dispenser for applying powder to various surfaces, such as eye makeup to eyelids, rouge to the face and the like.

It is heretofore known that dispenser applicators are reliable in their dispensing operation and that they may be rapidly handled by the operator. Most dispensers, however, are deficient in that they fail to provide for automatic dispensing, single-handed utilization of the device, maximum prevention of waste of the material and efficient application to the surface.

SUMMARY OF THE INVENTION

It is accordingly among the principal objects of the instant invention to avoid the drawbacks of the prior art. It is among the further objects of the invention to provide a dispenser for powder that is relatively uncomplicated, reliable simple to operate and is constructed so as to almost eliminate waste and overapplication.

The instant invention provides for a powder-dispensing device that may be easily operated so that the powder applicator, when in the use position, will have a preset amount of material thereon, thereby obviating waste, unnecessary expense and the danger of applying the makeup too thickly. At the same time, the device is operable to open automatically thereby exposing the applicator, already having adhered thereto the preset amount of powder. The foregoing may be accomplished by using one hand and simply manipulating a single part, using one finger of that hand.

Further objects and advantages of the invention will be set forth in part in the following specification and in part will be obvious therefrom without being specifically referred to, the same being realized and attained as pointed out in the claims hereof.

With the above and other objects of the invention in view, the invention consists in the novel construction, arrangement and combination of various devices, elements and parts, as set forth in the claims hereof, certain embodiments of the same being illustrated in the accompanying drawings and described in the specification.

BRIEF DESCRIPTION OF THE DRAWINGS

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 drawings, in which:

FIG. 1 is a large-scale fragmentary vertical sectional view of a powder dispenser applicator taken on line 1—1 of FIG. 2 showing the cover closed and the applicator retracted;

FIG. 2 is a large-scale plan fragmentary view of the underside of the invention as shown in FIG. 1;

FIG. 3 is a large-scale sectional view taken along the line 3—3 of FIG. 1;

FIG. 4 is a sectional view partly in elevation taken along the line 4—4 of FIG. 1; and

FIG. 5 is a large-scale fragmentary vertical sectional view similar to FIG. 1 but showing the cover open and the applicator projected.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In carrying the invention into effect in one of the embodiments which has been selected for illustration in the accompanying drawings and for description in this specification, there is provided a powder dispenser generally indicated at 11 that includes a casing structure 12 with a top wall 13, a bottom wall 14, a front wall 16 and a rear wall 17 which define a chamber 18 for the flowable material 19 to be dispensed. In a preferred embodiment the flowable material 19 will be a powder.

A handle 21 is externally provided which is movable in opposite directions A and B respectively, along at least part of the length of the underside of the casing 12. The handle 21 engages a sleeve 22 that is connected to and forms even a part of an elongated slideable member 23. The sleeve 22 is guided in a slot 24 that is recessed in the lower wall 14 and the opposite ends 26 and 27 of which determine the stroke of the slidable member 23.

The slideable member 23, the sleeve 22, and the handle 21 form part of moving means for the propulsion in direction B, and retraction in direction A, of the sliding means 23.

The sleeve 22 and the slot 24 form guiding means for guiding the movement of the slideable member 23. The slideable member 23 is preferably semirigid.

Permanently affixed to the slideable member 23 is a soft foamlike applicator 28 from which the material 19 to be applied to the surface therefrom is discharged (FIG. 5).

In the retraced position (shown in FIG. 1) the applicator 28 is entirely within the casing 11 and picks up material 19 in the chamber 18.

Mounted on the frontal top wall 16 of the casing 12 is a thin semirigid member 29. To this member 29 there is connected a porous material such as a porous soft foam material 31 which together with the member 29 form wiper means, such as a wiper 32. Alternatively, the wiper 12 may be composed of the member 29 with suitable surface texturing. The purpose of the porousness, respectively, the texturing is to act as a reservoir for the product for subsequent deposit onto the applicator 28.

A portion of the wiper 32 normally projects into the path of the applicator 28, so that when the applicator 28 is moved forwardly in the direction B it will push the wiper means 32 upwardly (FIG. 5) so that the underside 33 of the wiper 12 will wipe any excess powder off the top surface 34 of the applicator 28, so that there will remain on the top applicator surface 34, in the projected position of the applicator 28 only the desired amount of powder. When the applicator 28 is moved from the projected (FIG. 5) into the retracted (FIG. 1) position, the wiper 32 will again resume its position in which it protrudes into the path of the applicator 28.

The casing 11 is closed at the rear by the wall 17, the front end 36, however, is open. Closure means such as a cover 37 are provided to close releasably the open front end 36. The cover 37 is hinged at 38 to the lower wall 14 and is movable between the closed (FIG. 1) and an open position (FIG. 5). While in the closed position (FIG. 1) foreign matter is kept out of the powder exit passage.

In the open position, however, it permits unhindered projection and retraction of the applicator 28 and the slideable member 23. In the projected position of the applicator 28, the interengagement of the applicator 28 and the wiper 32 is such that no powder 19 can fall out through the open end of the casing 11.

The slideable member 23 has a cam 39 that during the forward movement, direction B, of the slideable member 23 will engage a cam surface 41 of the cover 37 thereby forcing the cover 37 into the dropped position (FIG. 5).

During retraction of the slideable member 23 the cam 39 will engage a tail portion 42 of the cover 37 that is disposed oppositely with respect to the hinge 38 relative to the cam surface 41, and during continued retraction of the slideable member 23 the cam 39 will return the cover 37 to its closed position (FIG. 1). In operation the assembled unit as described above may be filled and refilled from the back section thereof and is sealed by the end wall 17.

Closure of the dispensing device is effected in the following manner. At the point where the applicator 28 in the retracted position (FIG. 1) is in contact with the foam 33; as well as by the cover 37. When closed the moveable member 23 is wider and longer than the slot 24 in any position of the slideable member 23.

The operation of the above-described invention is as follows.

It is assumed that the powder material **19** has been filled into the chamber **18** for instance, through the end wall **17**. The operator by holding the device in one hand pushes upon the handle **21** which in turn propels the slideable member **23** attached internally thereto, forward. This forward motion thereof, causes the cover **37** to open through the cam **39** and follower engagement **41**. During this continued forward movement, the applicator **28** pushes the wiper **32** upward and out of the path of the emerging applicator **28**.

As the applicator **28** projects out of the exit passage it moves forwardly under the wiper **32** and the wiper **32** removes any excess powder **19** carried on the upper surface **34** of the applicator **28**. The powder **19** wiped off the applicator **28** is deposited on the surface of the foam material **31**, whereupon it eventually falls back into the chamber **18**.

For retraction of the applicator **28**, the operator would move the handle **21** in the direction A which in turn causes retraction of slideable member **23** that carries the applicator **28**. Near the end of the rearward stroke and cam **39** will engage the tail portion **42** thereby causing the cover **37** to close.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

Having thus described the invention, what I claim as new and desire to be secured by Letters Patent, is as follows:

1. A dispensing device for use in connection with a flowable material for applying it to a surface, comprising

a walled casing structure defining a reservoir for said material, and having one closed end portion and a second end portion defining an exist passage for said material,

closure means operable for releasably closing said passage and means operable for dispensing and applying a supply of said material, comprising

an applicator movable in opposite directions between a retracted position wherein it receives material in the casing, and, respectively, a projected position in which it protrudes through said passage and can apply to said surface at least some of the received material,

guide means between the applicator and the casing operative to guide the applicator during its reciprocal movement.

moving means operable for propelling and retracting respectively said applicator,

and wiper means operable to engage at least some of the material carried by said applicator to wipe therefrom any excess material as the applicator moves from the retracted to the projected position and wherein between said moving means and at least a portion of said closure means there is formed a cam and cam follower arrangement for opening and closing said closure means by said applicator.

2. A dispensing device for use in connection with a flowable material for applying it to a surface, comprising

a walled casing structure defining a reservoir for said material, and having one closed end portion and a second end portion defining an exist passage for said material,

closure means operable for releasably closing said passage and means operable for dispensing and applying a supply of said material, comprising

an applicator movable in opposite directions between a retracted position wherein it receives material in the casing and, respectively, a projected position in which it protrudes through said passage and can supply to said surface at least some of the received material,

guide means between the applicator and the casing operative to guide the applicator during its reciprocal movement,

moving means operable for propelling and retracting respectively said applicator,

and wiper means operable to engage at least some of the material carried by said applicator to wipe therefrom any excess material as the applicator moves from the retracted to the projected position, said wiper having a porous surface portion adjacent said applicator to deposit at least some material onto the applicator during movement of said applicator.

* * * * *