

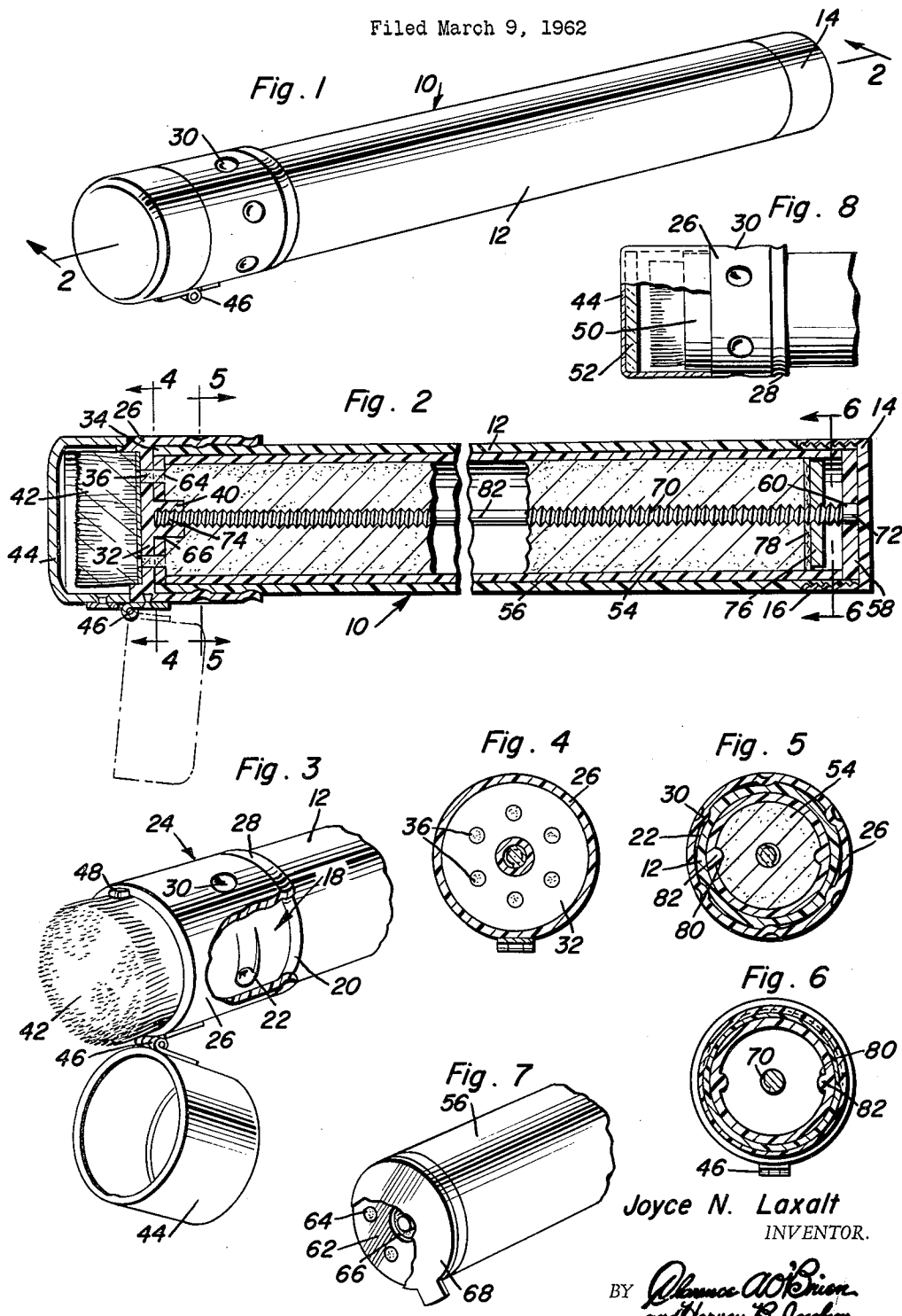
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POWDER BRUSH

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POWDER BRUSH

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The present invention generally relates to a powder brush, and more particularly a powder brush which includes a self-contained supply of powder for controlled release to the bristle part of the brush thereby eliminating the necessity of using a separate powder puff.

One of the primary objects of the present invention is the provision of a powdering implement which eliminates the inconvenience of spilled powder such as is common in the powder puff type devices which are in present use.

Another object of the present invention is the provision of a powder brush which is provided with its own powder supply thereby resulting in a compact device.

A further object is the provision of a device which can be refilled with a minimum of effort.

Also, an object of the present invention is the provision of a powder dispensing brush wherein the amount of powder dispensed can be easily regulated.

Likewise, an object of the present invention is the provision of a powder brush which can be covered so as to prevent accidental dispensing of the powder or damage to the bristles of the brush.

Additionally, an object of the present invention is the provision of a device which is simple in operation, extremely durable, re-usable and attractive in appearance.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the device of the present invention;

FIGURE 2 is a sectional view taken substantially on a plane passing along line 2-2 in FIGURE 1;

FIGURE 3 is a partial perspective view of the brush end of the device of the present invention;

FIGURE 4 is a sectional view taken substantially on a plane passing along line 4-4 in FIGURE 2;

FIGURE 5 is a sectional view taken substantially on a plane passing along line 5-5 in FIGURE 2;

FIGURE 6 is a sectional view taken substantially on a plane passing along line 6-6 in FIGURE 2;

FIGURE 7 is a partial perspective view of the apertured end of the powder cartridge of the present invention with the sealing film partially broken away; and

FIGURE 8 is a partial elevational view of a modification of the cap of the present invention with a portion of the modified cap broken away.

Referring now more particularly to the drawings, reference numeral 10 generally designates the device comprising the present invention. This device 10 consists of a hollow tubular body portion 12 provided at one end with a closure cap 14 removably screwed on the lower end 16 of the tubular portion 12. The upper end 18 of the hollow tube 12 is provided with a circumferential groove 20 and a plurality of gradually indented notches 22 so as to enable a brush containing member 24 to be rotatably and adjustably secured to the upper end 18 of the tube 12.

The brush containing member 24 consists of a tubular member 26 of slightly greater diameter than the tube 12. The tubular member 26 is provided at its lower end with an inwardly directed circumferential rib 28 which is adapted to mate with the groove 20 so as to rotatably secure the brush containing member 24 to the tube 12.

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The member 26 is further provided with a plurality of inwardly extending detents 30 which are adapted to engage within the gradually indented notches 22 on the tube 12 thus retaining the brush containing member in a fixed position relative to the tube 12 until a positive force is applied so as to move the detent 30 out of the gradually indented notch 22. The provision of gradually indented notches facilitates the rotation of the brush containing member 24.

A plate 32 is provided within the tubular member 26 at a position so as to engage the upper edge 34 of the tube 12 when the rib 28 and groove 20 are interengaged. This plate 32 is provided with a plurality of apertures 36 arranged in a circle about its center. The bottom surface of the plate 32 is provided with an outwardly projecting internally threaded, centrally located hollow tube 40. The upper surface of the plate 32 is provided with a plurality of bristles 42 forming a brush. These bristles 42 can be of sable, camel hair, nylon, or any other suitable soft brush-like material. These bristles 42 are embedded within the plate 32 or secured to the plate 32 in any other conventional manner.

Additionally, if so desired, small disposable puffs made of conventional materials may be provided in place of the bristles 42 with the puffs frictionally retained within the walls of the tubular member 26 projecting beyond plate 32. Such puffs would reduce the manufacturing cost and could be provided in separate refill packets for quick insertion and easy changing.

A cap 44 for the bristles 42 is secured to the tubular member 26 by means of a hinge 46 and is secured in a closed position by any standard type of catch 48.

A modified form of cap 44' is illustrated in FIGURE 8. This modified cap 44' is completely detachable from the tubular portion 26 and is secured in a closed position by frictionally engaging the forward extending portion 50 of the tubular member 26. If so desired, a mirror 52 may be provided within the bottom of the removable cap 44'.

The powder 54 is provided within a sealed cartridge 56 which is provided at its lower end with a plate 58 containing a centrally located bearing aperture 60. The other end of the powder containing cartridge 56 is provided with a plate 62 having a plurality of apertures 64 which coincide with the apertures 36 in the plate 32. The upper plate 62 is also provided with a centrally located aperture 66. These apertures 64 and 66 are sealed by a thin sealing film 68 which is stripped off the cartridge just before the use thereof so as to expose the above noted apertures.

An elongated threaded rod 70 is provided within the cartridge 56 and has its lower end 72 rotatably journaled within the aperture 60 in the bottom plate 58. The upper end 74 of the threaded rod 70 is located within the aperture 66 in the upper plate 62 and is adapted to be threadedly received within the hollow internally threaded member 40 which is inserted through the aperture 66 upon the positioning of the cartridge 56 within the tube 12 for use of the device of the present invention. Rotatably secured on the threaded rod 70 is a circular plate 76 which is provided with a felt cover 78. Both the plate 76 and the felt cover 78 being of a size so as to engage the inner walls of the cartridge 56 while at the same time being slidable in relation thereto. Grooves 80 are provided within the outer edge of plate 76 and are slidably engaged over mating ribs 82 which extend longitudinally inwardly from the wall of the cartridge 56 thus providing a means for longitudinally guiding the plate 76 with its cover 78. It will be readily apparent that the plate, guided by the mating grooves and ribs, will move in only a longitudinal direction upon rotation of the threaded rod 70, thereby resulting in the expelling

of the powder through the apertures 64 in the upper end of the cartridge.

From the foregoing, it is apparent that a novel device has been defined. The device of the present invention enables the user thereof to quickly and easily dispense the proper amount of powder directly into the powder applying brush by the simple expedient of rotating the brush containing member which, as is readily apparent from FIGURE 2, will effect a longitudinal movement of a rear plate, which movement forces the powder within the container to be expelled through aligned apertures in both the top of the container and in the base of the brush containing member. Likewise, it will be noted that the flow of powder can be completely cut off by merely offsetting the holes in the brush containing member from the holes in the powder containing cartridge, thus preventing any waste or spilling of the powder or any excessive flowing thereof. Further, a cover is provided for completely sealing and protecting the brush thereby providing a neat appearing and easily carried device. As is readily apparent, the exterior of the elongated tube can be provided with any of a plurality of attractive designs which might appeal to the user thereof. A very significant feature of the present invention is the unique powder containing cartridges and the manner in which said cartridges enable the device to be quickly and cleanly refilled. Also of significance in regard to the powder containing cartridge is the fact that the top aperture containing plate is preferably transparent as is the thin film which seals these apertures before the use of the cartridge. This enables the contents of the cartridge to be observed without the necessity of opening the cartridge, thus enabling the rapid selection of the desired powder by the buyer or user. The remainder of the cartridge as well as the rest of the device, while preferably constructed of either metal or plastic, is obviously not specifically limited thereto. Additionally, attention is drawn to the fact that the apertures in the brush containing member are preferably out of alignment with the apertures in the upper plate on the cartridge when the detents in the brush containing member are engaged within the gradually tapering indents on the upper end of the tubular container so as to prevent an excessive release of powder when the brush containing member is in a relatively fixed position. Thus, it is readily apparent from the description supra that a unique device has been defined, which device can be made small enough to be conveniently carried within a woman's handbag for normal cosmetic use in a clean and efficient manner. While it is generally contemplated that this device shall be used in the application of cosmetics, it is readily apparent that the device can be easily adapted for the application of various types of powders and still be within the scope of the present invention.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A powder applying means comprising an elongated hollow cylindrical container, a tubular means, a transverse plate in said tubular means dividing it into forwardly and rearwardly opening sections, the rearwardly opening section formed so as to telescopically and rotatably receive a first end of said container, said first end being open, applicator means positioned within the forward section, means for selectively positioning said tubular means relative to said container in a plurality of rotated positions, an annular series of openings through said transverse plate, an internally threaded rearwardly opening socket projecting rearwardly from said transverse plate

centrally thereof, said means for selectively positioning the tubular means relative to the container consists of a plurality of circumferentially spaced outwardly opening recesses formed in said first end of the container and a plurality of mating inwardly extending projections formed in the rear section of the tubular means, an annular groove formed about said first end of the container and a mating annular rib formed in the rear section of the tubular means so as to retain said tubular means on said cylindrical container and guide said tubular means during the rotation thereof, a removable closure sealing the second end of said container, a removable cap enclosing said applicator means when not in use, a removable powder containing cartridge located within said container, a bottom wall secured to and sealing the rear end of said cartridge, a top wall secured to the forward end of said cartridge, an annular series of holes through said top wall, said holes being located so as to correspond to the location of the openings in the transverse plate of the tubular means, said openings simultaneously being rotatable into and out of alignment with said holes upon a rotation of the tubular means, an elongated threaded rod extending longitudinally through said cartridge, the rear end of said rod being rotatably mounted in said bottom wall, the forward end of said rod being threaded within the rearwardly opening socket for rotation with said tubular means, the top wall at the forward end of the cartridge being provided with a centrally located aperture there-through of a size so as to receive the projecting socket for engagement with the forward end of the rod, and a circular plate threaded on said rod within said cartridge for longitudinal movement upon a rotation of said rod so as to effect a forward movement of the powder within the cartridge while simultaneously bringing the openings and holes in alignment so as to enable the passage of the powder therethrough and into the applicator means.

2. The device of claim 1 wherein said openings are out of alignment with said holes when the inwardly extending projections are engaged within the outwardly opening recesses.

3. A powder applying means comprising an elongated tubular container, a tubular member, a transverse plate in said tubular member dividing it into forwardly and rearwardly opening sections, the rearwardly opening section formed so as to telescopically and rotatably receive a first end of said container, said first end being open, applicator means positioned within the forward section, means for selectively positioning said tubular member relative to said container in a plurality of rotated positions, an annular series of openings through said transverse plate, an internally threaded rearwardly opening socket projecting rearwardly from said transverse plate centrally thereof, and a removable powder containing cartridge located within said container, a bottom wall secured to and sealing the rear end of said cartridge, a top wall secured to the forward end of said cartridge, an annular series of holes through said top wall, said holes being located so as to correspond to the location of the holes in the transverse plate of the tubular member, said openings simultaneously being rotatable into and out of alignment with said holes upon rotation of the tubular member, an elongated threaded rod extending longitudinally through said cartridge, the rear end of said rod being rotatably mounted in said bottom wall, the forward end of said rod being threaded within the rearwardly opening socket for rotation with said tubular member, the top wall at the forward end of the cartridge being provided with a centrally located aperture there-through of a size so as to receive the projecting socket for engagement with the forward end of the rod, and a circular plate threaded on said rod within said cartridge for longitudinal movement upon a rotation of said rod so as to effect a forward movement of the powder within the cartridge while simultaneously bringing the openings and holes in alignment

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so as to enable the passage of the powder therethrough and into the applicator means.

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