

[54] SELF-CONTAINED DISPOSABLE SWAB-TYPE MEDICATION APPLICATOR

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[58] Field of Search 128/272, 269, 2 W; 401/132, 196; 206/56 AA

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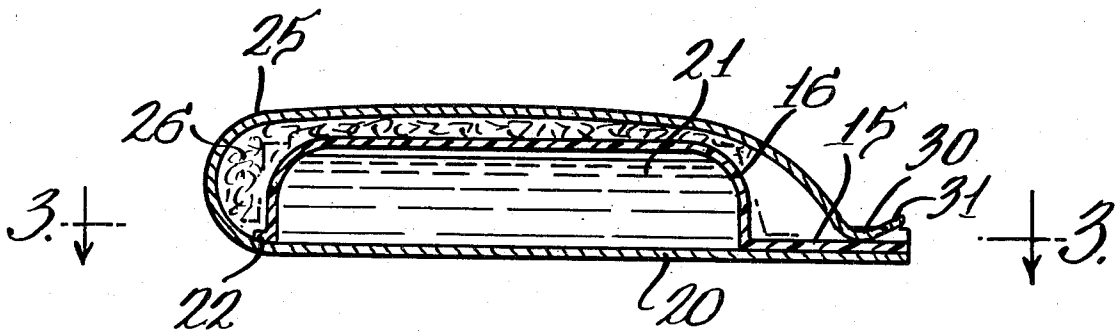
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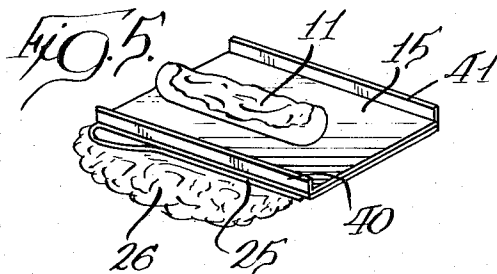
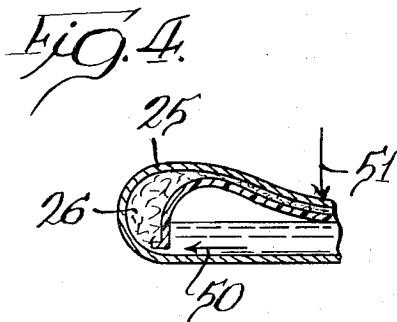
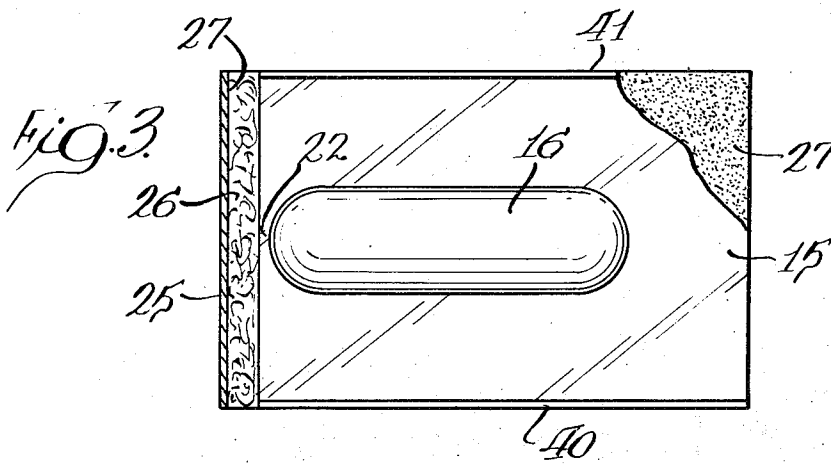
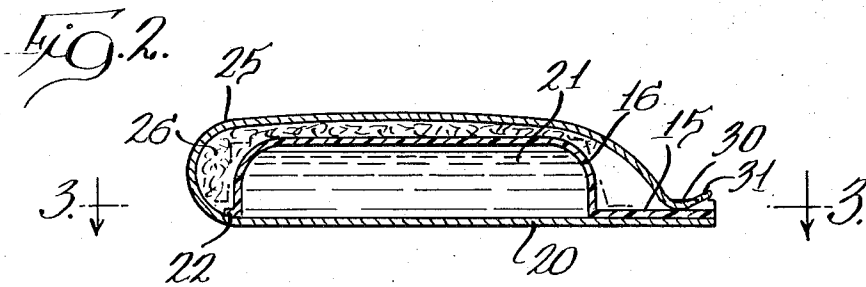
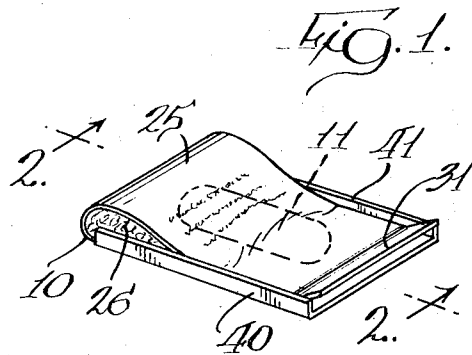
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[57] ABSTRACT

A self-contained disposable medication applicator with an encapsulated topical medicine or other fluid wherein a relatively rigid section of material is provided with a recess to hold the fluid and a flexible strip has one part thereof sealed to the relatively rigid material to close off the recess and encapsulate the liquid, with an adjacent length of flexible material having swab material, such as cotton, secured thereto and with a further length of the flexible material peelably attached to the rigid material in a manner to have the flexible material arranged in a generally U-shape, with the swab material captured within the flexible material and positioned to be impregnated by the liquid when the liquid is discharged from the recess. The discharge of the fluid is facilitated by having a manually fracturable seal at one end of the recess whereby manual squeezing of the medication applicator releases the fluid for impregnating the swab material and the flexible material may then be peeled from the relatively rigid base material and folded back upon itself to expose the swab material for use.

5 Claims, 5 Drawing Figures





SELF-CONTAINED DISPOSABLE SWAB-TYPE MEDICATION APPLICATOR

BACKGROUND OF THE INVENTION

This invention pertains to self-contained disposable medication applicators with an encapsulated topical medicine or other fluid and with swab material which may be impregnated by manual pressure release of the fluid followed by exposure of the swab material for use.

As is well known, many medical procedures involve the use of application of medicines or other materials to parts of the body, such as the skin, by impregnating swab material, such as cotton, with the medicament and then applying it to the skin. Such procedure involves a number of manipulative steps including either separating swab material, such as cotton, from a bulk supply thereof or separating a preformed ball of cotton from a supply thereof, followed by impregnating the cotton with the desired medicament.

There is also available, a self-contained swab having a tube with swab material, such as cotton, extending from an end thereof and with the tube containing a glass ampule of a medicament which is fractured to impregnate the swab material. This structure has a limited amount of swab material available for wiping in application of the medicament, is possibly injurious to the skin by scraping of the tube ends against the skin, and results in the presence of glass fragments from the broken ampule.

SUMMARY

A primary advantage of the invention disclosed herein is in the provision of a self-contained disposable medication applicator with a capsule for topical medicine or other fluid wherein an ample supply of swab material, such as cotton, is held in position for impregnation by the fluid followed by exposure of the swab material for application to the skin area and without the utilization of any fracturable glass ampules and without possible contact of the skin by injurious parts of the device and with the swab of the medication applicator closely resembling the conventional swab.

Another feature of the invention is to provide a self-contained medication applicator with an encapsulated topical medicine or other fluid wherein a planar base of relatively rigid material is formed with a recess for holding fluid and a strip of flexible material is arranged in a generally U-shaped configuration with one end section thereof closing off the recess to hold the fluid and the other end section adhesively secured to the opposite side of the planar base and with an intermediate section of the flexible material having a section of swab material secured thereto whereby the swab material is located adjacent an end of the recess and with release of fluid from the recess at one end thereof impregnating the swab material followed by peel-back of the strip of flexible material from the planar base to expose the swab material for use.

Another feature of the invention is to provide a self-contained disposable medication applicator as defined in the preceding paragraph wherein said rigid material and flexible material are sealed together at one end of the recess by a relatively narrow seal which can be fractured under manual pressure to permit impregnation of the swab material by the fluid.

The self-contained disposable medication applicator having the advantages and features set forth above permits storage of a number of medication applicators having different medicaments as required for treatment of cuts, burns, as well as "prepping" and, upon selection of the appropriate medication applicator, the applicator may be squeezed by the hand of a user to fracture the seal and impregnate the swabbing material, such as cotton, with the medicament, followed by peel-back of the flexible material carrying the swab material to overlie the planar base of generally rigid material whereby the swab material is fully exposed for use with the planar base providing a fairly rigid support whereby the cotton material can be firmly applied to the skin. Additionally, the provision of the planar base and associated planar flexible strip provides flat areas which may be utilized for printed or handwritten medical data and labelling information.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of the self-contained disposable medication applicator;

FIG. 2 is a vertical section, on an enlarged scale taken generally along the line 2—2 in FIG. 1;

FIG. 3 is a plan section, taken generally along the line 3—3 in FIG. 2;

FIG. 4 is a fragmentary view, similar to FIG. 2, showing the topical medicine or other fluid in communicating relation with the swab material; and

FIG. 5 is a perspective view showing the medication applicator in operative position for application of the medicament to the skin area or another part of the patient's body.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The self-contained disposable medication applicator as supplied is shown in FIG. 1 and includes a quantity of swab material, such as cotton 10, and a capsule 11 of topical medicine or other fluid, such as acetone, iodine, or alcohol, that can be used in medical treatment as in treating of cuts, burns, or in "prepping."

The self-contained disposable medication applicator has a generally planar base member 15 of relatively rigid material and an example of which is polyvinyl chloride of 10 mil thickness which has recess means 16 molded therein.

A strip of planar flexible material, such as waterproof paper, is associated with the planar base 15 and in a generally U-shaped configuration. This strip of flexible material has a first leg section 20 coextensive with the planar base 15 and secured thereto as by a suitable adhesive, such as an FDA approved Permacel adhesive and which functions to close off the recess 16 to encapsulate the topical medicine or other fluid 21. One end of the planar base 15 is adjacent an end of the capsule 11 to define a relatively narrow seal 22 between the planar base 15 and the leg section 20 of the flexible material. This provides a manually fracturable seal at one end of the capsule whereby pressure applied to the disposable medication applicator and as shown in FIG. 1 fractures the seal to permit release of the topical medicine or other fluid 21 from the capsule 11.

The provision of having encapsulated material in a culture transporter for use in a culture swab is shown in the pending application of James B. Brown and James D. Bailey, Ser. No. 229,007, filed Feb. 24, 1972.

In the application, a fluid is shown as encapsulated between a relatively rigid planar base and a strip of flexible material, with there being a relatively narrow seal therebetween whereby manual fracture of the seal permits flow of the fluid to the removable culture swab which is stored in an adjacent recess.

An intermediate section 25 of the strip of flexible material has a section of the swab material, such as cotton 26, secured thereto and extending for the full width of the medication applicator and curvingly surrounding the capsule 11. This swab material may be held to the strip of flexible material by a layer 27 of pressure-sensitive adhesive applied to the interior surface of the strip.

The other leg section 30 of the strip of flexible material and defining an end thereof has a peelable adhesive applied thereto whereby it is releasably secured to the side of the planar base 15 opposite the side to which the leg section 20 of flexible material is attached. A tear strip 31 at the end of the leg section 30 does not have any adhesive thereon whereby it is free of contact with the planar base 15 to facilitate manual grasping and peeling of the leg section 30 away from the planar base 15 whereby the medication applicator may be arranged for use in the position shown in FIG. 5.

A pair of raised edges 40 and 41 on the planar base 15 act to confine the swab material 26 at the sides of the applicator prior to use thereof.

The self-contained disposable medication applicators are supplied with selected topical medicines or other fluids contained in the capsule 11 whereby the desired medication applicator may be selected for a particular purpose. After the selection, the user thereof applies manual pressure to the medication applicator to fracture the narrow seal 22, with the fluid in the capsule either flowing by gravity or by pressure into the swab material 26 to impregnate the material, with this flow being shown by an arrow 50 in FIG. 4 and resulting from manual pressure applied in the direction of arrow 51. The narrow seal 22 defines a small area of bond which must be sufficiently large to avoid fracture during shipment of the medication applicator, but sufficiently small to permit fracture by manual pressure. The leg section 30 of the strip of flexible material is then peeled away and moved around to the position shown in FIG. 5 to fully expose the swab material 26 for application of the medicament to the skin of a person and with the relatively rigid planar base 15 providing a

backing for the swab material to enable firm rubbing of the swab material against the skin. The medication applicator may be held between the fingers of the user without any contact of the person's fingers with the medication either in opening the medication applicator for use or during use thereof.

The flat planar structure permits imprinting of labeling information and entering of other information.

I claim:

1. A self-contained disposable swab-type medication applicator with a medicament capsule comprising, an elongate flexible strip, means associated with one portion of said strip to define a frangible capsule type fluid medicament retaining means, a manually fractureable seal adjacent an end of the capsule, and a section of swab material secured to a second portion of said flexible strip and having a portion thereof between the capsule and an end of the strip, said second portion of said strip folded over and in contact with said capsule and with said swab material positioned to receive the fluid medicament from the capsule when its seal is manually fractured and a part of said strip second portion sealingly attached to the end portion of said strip one portion opposite said fold to define an encapsulated applicator.

2. A self-contained swab-type medication applicator as defined in claim 1 wherein said flexible strip is of waterproof material and said swab material is cotton, said flexible material having adhesive thereon to secure the cotton thereto.

3. A disposable swab-type self-contained medication applicator as defined in claim 1 wherein said means associated with one portion of said strip comprises a section of relatively rigid generally planar material with a depression and said fractureable seal being defined by a seal between said planar material and said one portion of said strip.

4. A self-contained medication applicator as defined in claim 1 wherein said flexible strip second portion has a free end to facilitate release of said sealing attachment.

5. A self-contained disposable swab-type medication applicator as defined in claim 1, wherein said one portion of the flexible strip has a generally U-shaped cross section to define a pair of spaced apart raised edges and with said second portion of the flexible strip laterally confined between said raised edges.

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