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F. DEUSCHLE

3,508,547

APPLICATOR SWAB

Filed Sept. 26, 1967

FIG. 1

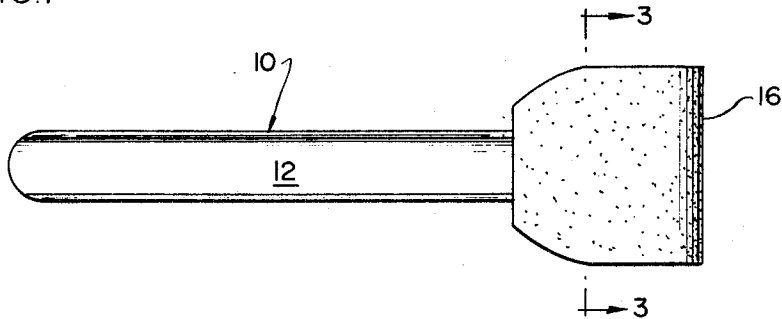


FIG. 2

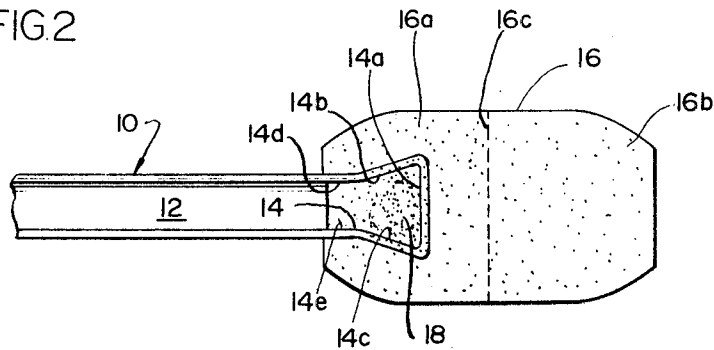


FIG. 4

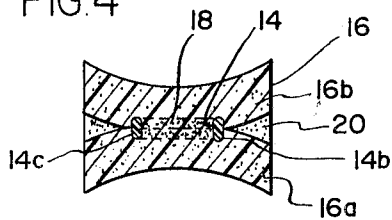
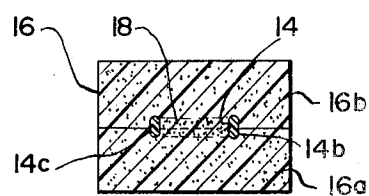


FIG. 3



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## APPLICATOR SWAB

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5 Claims

### ABSTRACT OF THE DISCLOSURE

An applicator swab particularly suited for medicinal use comprising a handle portion with a member of absorbent material connected to one end of the handle, characterized in that the one end of the handle portion has an irregular shaped opening and the absorbent member is connected to the handle by being folded over on both sides of the opening with suitable adhering means disposed only in the irregular shaped opening.

### BACKGROUND OF THE INVENTION

#### Field of the invention

This invention relates to applicator devices, more particularly to an applicator device especially suited for medicinal use and having an applicating end of absorbent material.

#### Description of the prior art

Applicators with adsorbent or sponge-like members on one end of a handle are generally well known in the art. Examples of such applicators are shown in the following U.S. patents: Bartholomew, 982,232; Funk, 1,857,145; McNeil, 2,491,274; Strauss, 2,490,168; Palma, Jr. et al., 2,679,064; Castelli, 2,842,790; Horn, 3,134,124; Bloch et al., 3,179,108; Bloch et al., 3,255,494.

Funk Patent No. 1,857,145 shows an applicator wherein an expanded foam member is folded over on the end of the handle and adhered together. However, in this arrangement suitable provision is not made for preventing the seepage of adherent substances to the edges of the foam material thereby making it possible for the edges of the foam applicator to become rough because of the presence of cementitious substance. In addition, the Funk structure is such that the foam material is free to twist or rotate relatively to the tip of the handle.

### SUMMARY OF THE INVENTION

This invention is directed, in brief, to the provision of a medicinal type swab or applicator having a handle with absorbent material, such as expanded foam, folded over and secured to the tip of the handle, characterized in that the handle is provided with an irregular, preferably generally trapezoidal, shaped opening at one end thereof with the foam material secured together and to the handle by adhesive means disposed only within the borders of the opening and with portions of the foam material surrounding the borders of the opening being free of adhering engagement.

### DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of the medicinal applicator of this invention;

FIG. 2 is a fragmentary top plan view of the medicinal applicator during a stage of assembly thereof, prior to the foam material being folded over upon itself and secured together;

FIG. 3 is a section view taken generally along the lines 3—3 of FIG. 1; and

FIG. 4 is a view that is similar to FIG. 3 but showing the two portions of the foam swab squeezed together for adhering engagement.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

The applicator 10 of this invention includes a handle portion 12, preferably a thin elongate member of substantially rigid plastic, or the like. One end of the handle is provided with an opening 14 which preferably is of an irregular shape, such as the generally trapezoidal shape illustrated. In the illustrated embodiment, the border of the opening is defined by a base 14a at the extreme distal end, inwardly converging sides 14b and 14c which terminate in parallel portions 14d and 14e, which, in turn, terminate at the body of handle 12. A swab portion 16, preferably of an expanded foam polyurethane, or similar sponge-like material, is attached to the end of the handle 12 in the area of opening 14. The swab portion 16 includes a bottom portion 16a and a top portion 16b, which are folded together about a line indicated 16c over the handle 12 in the area of the opening 14.

Novel means are provided for securing the swab 16 to the handle 12 in such a manner as to prevent unintended twisting and dislodgment of the swab relative to the handle and to also insure that the peripheral areas of the swab will be soft and free of adhering material. To this end, the swab is made substantially larger than the end of handle 12. A suitably adherent 18 is applied only within the borders of opening 14, most particularly in the space between sides 14a, 14b and 14c. Generally this adherent is applied to one side 16a of the swab 16 and then the other side 16b is folded thereover and held in facial engagement with the opposite side to which the adherent material 18 has been deposited. Preferably sides 16a and 16b are squeezed together as shown in FIGURE 4 to obtain a good distribution of the adhesive. By adhering sides 16a and 16b of the swab together in this manner, the adherent is prevented from spreading near the exposed edges of the swab by reason of being kept confined within the borders of the opening 14. This is extremely desirable in such swabs which may be used for medicinal purposes in that glue or other foreign matter which may reach the edge of the swab may transform the relatively soft foam material into a rough hard material which, during use, can scrape, irritate, or in other ways cause discomfort to the person upon whom the swab is being used.

Another feature of the instant invention is that the irregular polygonal shape of the opening 14 tends to keep the swab 16 on the handle and hold the same against twisting relative to the handle. It has been found that with the trapezoidal shaped opening 14, there is no tendency for the swab 16 to twist to either side of the handle 12. This has been found to be a problem in other structures wherein the swab is secured to a similar opening 14 which may be circular, in that the swab tends to twist or move and have poor application characteristics. In those applicators where the swab is merely adhered to opposite sides of a solid handle, there is a tendency for the swab 16 to be easily axially dislodged from the handle. However, with the irregular shaped opening as shown, the swab retains its position on the handle against unintended movement.

In FIG. 4, the effect of applying the adhesive 18 within the confines of the opening 14 is best illustrated. There it can be seen that no adhesive creeps into the area 20 between the opposite portion 16a and 16b of the swab 16 beyond the borders of opening 14. Thus, the swab is very suitable for use in dressing or cleaning wounds in the skin or tender areas of a patient in that it is very soft and absorbent and contains no foreign matter in its peripheral borders which will tend to irritate a patient.

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The foregoing detailed description is given for clear-  
ness of understanding only and no unnecessary limitations  
are to be understood therefrom as some modifications  
will be obvious to those skilled in the art.

1. A medicinal applicator comprising a handle mem-  
ber having an opening at one end thereof, and an ab-  
sorbent swab member folded over about the end of said  
handle member so as to have opposed portions on either  
side of said opening, said swab member being enlarged  
relative to said opening so that its outer edges extend  
beyond the peripheral borders of said opening, the op-  
posed portions of said swab member being secured to-  
gether and to said handle member through said opening  
by adhesive means disposed only within the peripheral  
borders of said opening, the outer edges of said swab  
member being free of adhesive material.

2. The medicinal applicator of claim 1 wherein the  
opening in the handle has a generally trapezoidal shape.

3. The medicinal applicator of claim 1 wherein the  
swab member is formed of soft foam material.

4. The medicinal applicator of claim 1 wherein the  
opening in the handle is of irregular configuration.

5. The medicinal applicator of claim 1 wherein the  
opening of the handle is an irregular polygon.

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