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W. R. DORMAN ET AL

EMERGENCY APPLICATOR AND METHOD OF PRODUCING IT

Filed July 22, 1927

Fig. 1.

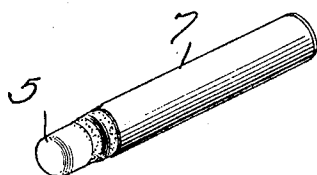


Fig. 4.

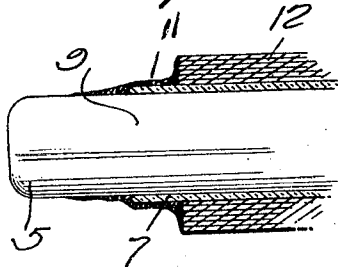


Fig. 2.

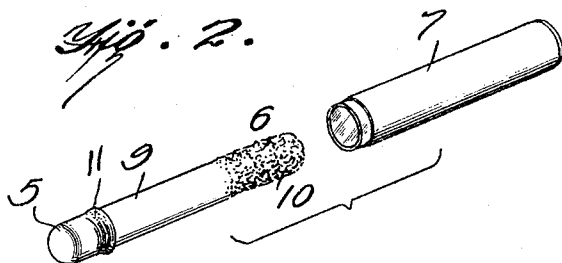
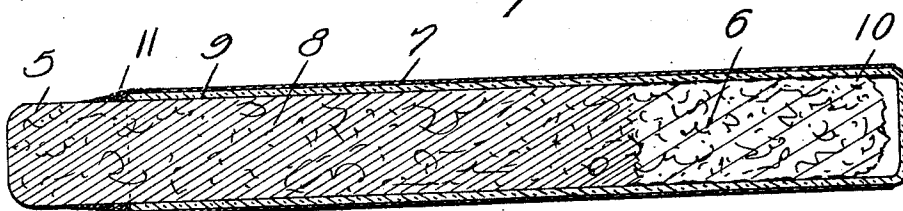


Fig. 3.



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EMERGENCY APPLICATOR AND METHOD OF PRODUCING IT.

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Objects of the invention are to simplify the construction, lessen the cost of production and increase the efficiency of emergency or single use applicators.

Heretofore and before our invention it has been standard practice to provide glass or other receptacles containing fluid antiseptic and a swab. Sometimes the practice was varied by securing the swab in operative relation externally of the container. Such expedients are objectionable in a number of respects. For example, they are relatively expensive; employ a greater charge of antiseptic than is necessary or convenient to use; necessitate breakage of the container and removal of glass fragments from the swab; and they are wasteful and messy with staining fluids such as iodine and mercurochrome.

This invention materially departs from the old practice and its nature consists in an applicator and its method of production, the applicator embodying a saturated swab and a cap of shell for the same, readily separable without breakage and without spilling or waste.

The invention in its preferred form is illustrated in the accompanying drawings, wherein

Figure 1 is a perspective view of the improved applicator.

Fig. 2 is a perspective view of the parts in detached relation.

Fig. 3 is a sectional view of a specially treated applicator.

Fig. 4 is a modification in which the casing is enclosed in a first aid dressing.

According to our invention an applicator consisting of a dry handle portion 5 of rod or pencil form is equipped with a swab or brush 6 wetted with iodine, mercurochrome or other fluid antiseptic. A glass or other shell 7 envelops the moist end of the applicator and is cemented or otherwise secured in hermetic sealing relation with the handle portion, a sufficient length of the latter protruding from the shell to permit the ready withdrawal of the applicator without the hazard of breakage of the shell. It will be understood that the swab carries enough fluid for the emergency but not enough to spill.

While the invention may be practiced in various ways, it lends itself to the utilization of inexpensive and to some extent waste ma-

terials. For example, it is possible to provide a unit swab and handle formed of cotton fiber or the like, the major length of which is stiffened and rendered fluid tight. Any wax containing no unsaturated hydrocarbon will accomplish this result although paraffin is not particularly desirable on account of its low boiling point.

In the present embodiment a cotton roll 8, Fig. 3, is treated for about two-thirds of its length to render that portion non-absorbent or fluid repellant, the tip or remaining portion being left in its natural state to constitute a swab. The material used for this purpose is highly efficient, yet a waste product. It is ceresin or silk gum, the residue in the boiling off process of silk, and a great deterrent to absorption.

The impregnation may be carried to a sufficient extent to insure a superficial coating 9 of the ceresin or other treating material. The tip or swab 10 is then dipped in iodine, mercurochrome or other antiseptic solution, whereupon it is telescoped within the shell or casing and hermetically sealed therein by an application 11 of collodion or the like to the exposed end of the applicator and the adjoining portion of the shell or casing. Generally a paper wrapping or label will surround the shell and facilitate the operation. Sometimes the wrapping may take the form of a first aid dressing as at 12 in Fig. 4.

Having described our invention, we claim:

1. A surgical applicator embodying a swab formed of a cotton roll whereof the handle portion is impregnated with a stiffening and fluid repellant substance and whereof the tip is wetted with antiseptic, and a cylindrical shell telescoping and hermetically sealing the tip and from which the handle portion protrudes.

2. A surgical applicator embodying a swab formed of absorbent material a portion of which is impregnated and stiffened with fluid repellant material to constitute a handle, and a telescopic casing fitted to the swab and stopping short of the handle end in sealing relation therewith.

3. The method of making surgical applicators, which consists in providing a roll of material normally absorbent, impregnating an end thereof with a stiffening and fluid repellant substance to provide an impervious handle portion, applying fluid antiseptic to

the pervious portion, and hermetically sealing the fluid charged portion.

4. The method of making surgical applicators, which consists in providing a roll of material normally absorbent, impregnating an end thereof with a stiffening and fluid repellant substance to provide an impervious handle portion, charging the pervious portion, introducing the charged end into a shell or casing of less length than the roll, and hermetically sealing the casing in detachable relation with the handle portion.

5. A surgical applicator of substantially cartridge form, comprising a shell, an element shaped to fit and somewhat longer than the shell, said element formed of normally absorbent material whereof all but the tip is impregnated with a substance calculated to establish fluid repellant conditions, the tip carrying fluid antiseptic, and a cement bond between the shell and the remote end of said element.

6. A surgical applicator of substantially cartridge form, comprising a shell, an element shaped to fit and somewhat longer than the shell, said element formed of normally ab-

sorbent material whereof all but the tip is impregnated with a substance calculated to establish fluid repellant conditions, the tip carrying fluid antiseptic, a cement bond between the shell and the remote end of said element, and a first aid dressing constituting a wrapper for the shell.

7. A self-contained non-spillable wet surgical applicator, comprising shell and core elements endwise movable in telescopic relation, the core being a unit structure of normally absorbent material whereof the main body portion is impregnated with wax and coated therewith to stiffen it and to render it fluid repellant, the remaining portion being in its natural flexible and absorbent state to constitute a swab, said swab being charged with fluid antiseptic, and a gelatine spread sealing the handle portion of the core with relation to the shell.

In testimony whereof we affix our signatures.

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