Nov. 5, 1968 H. P. KRON 3,409,010

HALF-GLOVE MEDICAL APPLICATOR MITT

Filed April 25, 1966 2 Sheets-Sheet 1

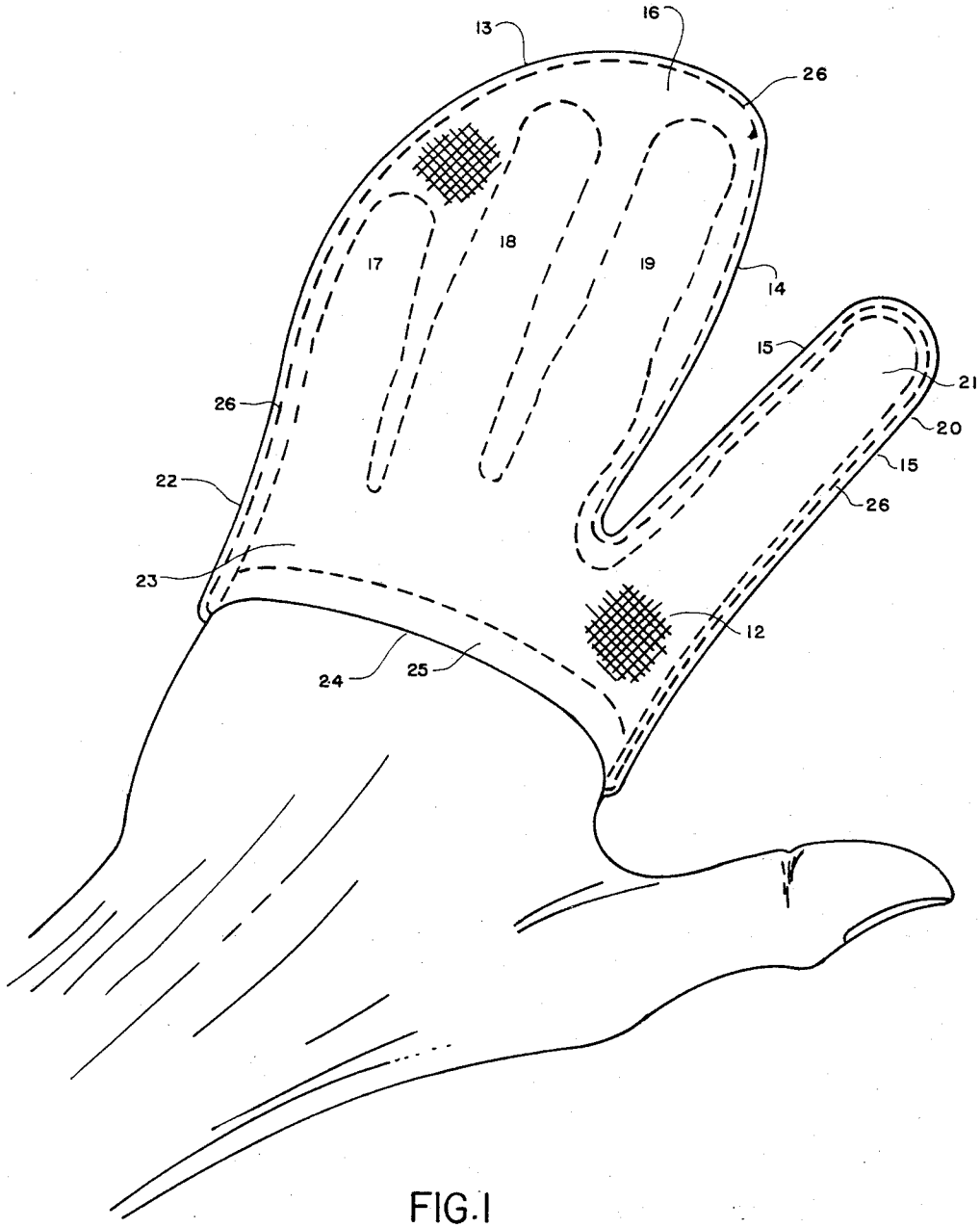


FIG.1

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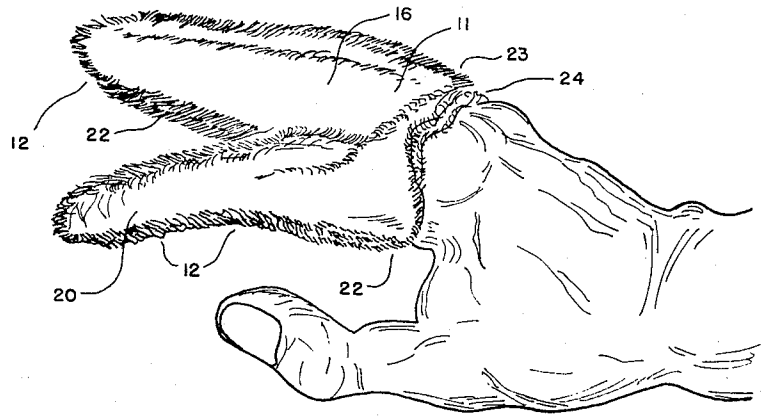


FIG. 2

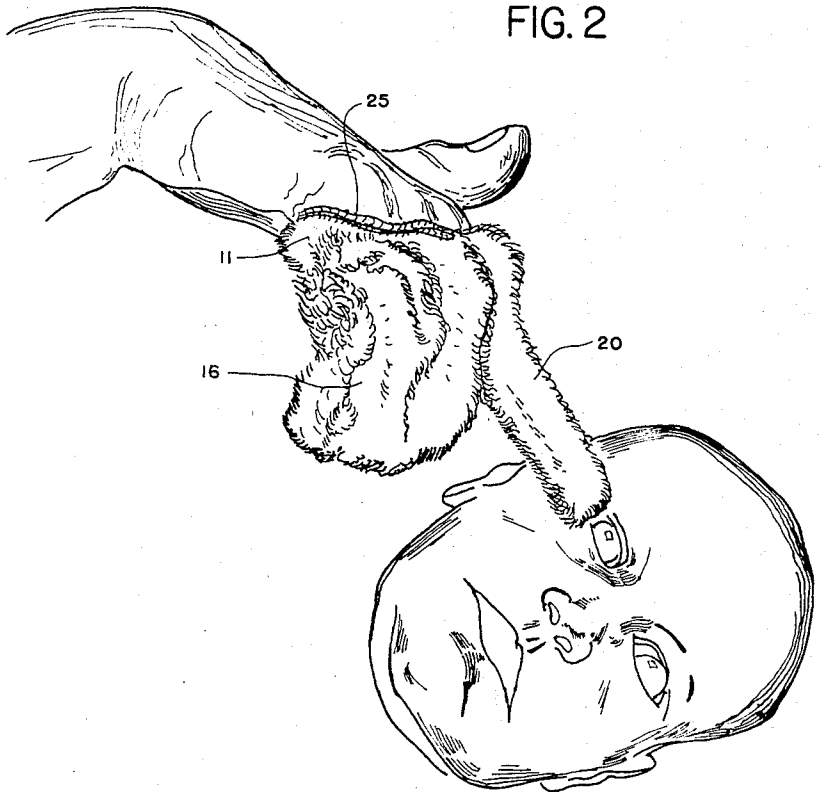


FIG. 3

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United States Patent Office 3,409,010 Patented Nov. 5, 1968

3,409,010

HALF-GLOVE MEDICAL APPLICATOR MITT

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Filed Apr. 25, 1966, Ser. No. 545,095
5 Claims. (Cl. 128—260)

This invention relates to cleaning and applicator mitts for medications, emollients, and other dermatological agents, and more particularly to a disposable half-glove mitt for hospital and surgical use.

The human fetus emerges into the world with its skin covered by a sebaceous deposit consisting of a mixture of exfoliations of outer skin layer, and downy hairs known as lanugo, and secretions of the sebaceous glands. This substance, known as the vernix caseosa, serves to protect the skin of a fetus from attack by its own urine which accumulates in the amniotic fluid during the last weeks of pregnancy. Once the skin is exposed to atmosphere, however, the vernix has served its purpose and must be removed before it hardens. This is generally done by the application of olive oil to the skin of the new born infant or by wiping of the skin by a wash cloth moistened with water or a cleaning compound followed by the application of olive oil. Since the vernix and materials covering the baby at birth tends to harden into a dry crust or scale promptly upon exposure to air, its removal from the baby should begin as soon as possible after, sometimes even during, expulsion from the body of the mother.

The vernix caseosa is particularly abundant, however, in the creases of the skin, and is by no means easy to remove from such places, particularly the eye sockets of the infant, by the mere application of olive oil. It is necessary to wash and vigorously wipe the eyes of the newly born infant clean of all vernix caseosa before the antiseptic silver nitrate may be applied thereto in prophylaxis of various infections which can lead to blindness.

In present hospital practice, the wiping of the eyes of the newborn child is done after the physician or nurse holding the infant has wrapped one hand in a sterile wash cloth or towel which provides an absorbent surface of sufficient rugosity to adequately dislodge and expunge the cheesy substance of the vernix. Such a method is but a makeshift, and subject to serious drawbacks, among which are delay and clumsiness, compounded by the necessity of having to hold the slippery newborn baby with one hand while cleaning the baby with the other hand. The process of washing and cleaning around the eyes of the baby with a wash cloth wrapped around the fingers of the doctor are awkward at best even in fully staffed delivery rooms of modern hospitals where nurses are available to replace the wash cloths as they become soiled. However, when babies are delivered in homes, under emergency conditions, or when nurses and delivery-room personnel are thinly deployed and working under pressure, as is not uncommonly the case, serious consequences can result from delay or failure in completely removing the vernix from the eyes, or from clumsiness culminating in the dropping of a baby.

It is therefore an object of this invention to provide a combination applicator and wiping cloth in the form of a mitt or half-glove capable of being rapidly donned and rapidly removed.

Another object is to provide an applicator mitt which may be donned and removed by the hand that wears it.

A further object is to provide a mitt of such cheapness and simplicity of fabrication as to be completely disposable after a single use.

Another object is to provide a mitt that will not slip off the hand.

Still another object is to provide a medical applicator mitt having a separate covering or fingerstall for the index finger so that the index finger can be used separately and effectively used in and around the eyes for cleaning while the sheath covering the other three fingers can carry olive oil for intermittent application in loosening matter to be removed or in smoothing and soothing an area that has been cleaned.

Another object is to create a medical applicator mitt provided with a protective liner that will prevent caustic medications from reaching and burning or injuring the hand of the operator.

A further object of the invention is to provide a disposable single use applicator and cleaning mitt of such cheapness and simplicity, that mits can be impregnated with the various cleaning and medication compounds at the time of manufacture and sealed in separate plastic packages so the treated mitt is ready for immediate use the moment it is removed from the package.

Other objects and advantages of the invention will become apparent from the following description, when read in connection with the accompanying drawings of the device in which:

FIG. 1 is a plan view of the preferred embodiment of the device as it would appear if worn upon the left hand of an operator. The outline of the position of the fingers of the operator within the device is indicated for the sake of clarity by dashed lines without thereby implying that the hand of the operator is a part of the invention.

FIG. 2 is a perspective view of the preferred embodiment of the device as it would appear if worn upon the right hand of an operator.

FIG. 3 is a perspective view of the preferred embodiment of the device as it would appear if worn upon the right hand of an operator, and showing one method of use or application thereby.

In describing the preferred embodiment of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. However, it is not intended to be limited to the specific terms so selected, and it is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar purpose.

Turning now to the specific embodiment of the invention selected for illustration herein and particularly to FIG. 1, the device is seen to comprise a half-glove or mitt formed so as to sheath only the knuckles of the human hand with a separate sheathing or fingerstall for the index finger but excluding the thumb which is seldom used in the cleaning or application of medication to human tissue.

Under normal anticipatable production circumstances the preferred embodiment of the applicator mitt would be fabricated by cutting a trank from an elongated sheet of flexible, stretchable material having an absorbent surface such as stretch terrycloth, When said trank is folded over upon itself and stitched or secured along outside edges **13**, **14** and **15** it will produce mitt **11** with sheath **16** adapted to cover outer fingers **17**, **18** and **19** only and a separate finger stall **20** to sheath index finger **21**. Finger sheath **16** and index stall **20** are joined to each other by an abbreviated palm section **22** (underside of the mitt) and an abbreviated back section **23** terminating in an abbreviated cuff section **24** of just sufficient length to reach just back of the knuckles of the user in mid-palm area rather than at the wrist of the hand so that the thumb enjoys complete absence of any covering or restriction whatever and is free to remove the mitt when the user must work with but a single hand.

An elastic band **25** is sewn, heat sealed or otherwise secured in the rim of the cuff **24** of said mitt so as to prevent the device from slipping off over the knuckles of the hand during use.

In many instances the medication to be applied by the

mitt may be caustic or of such character as to stain or burn the fingers of the user. To provide for such situations the manufacturer of the invention will need to provide for a variation of the device in which the mitt is lined with a protective barrier liner **26** made from rubber, plastic or a material that will be impervious to the medications and compositions to which the absorbent surface of the mitt may be exposed.

It should also be noted that the base liner for mitt **11** could be fabricated first as a rubber or plastic mitt and an absorbent fabric or surface material coated on to the outside of the mitt. In some instances it might be desirable to apply the coating of absorbent material to only those parts of the mitt to be used in applying medication such as the palm side of the mitt but it would seem preferable to always cover all of the index finger stall **20** with an absorbent surface material.

The utility of the mitt as an improved device for cleaning surfaces and the direct application of medications that are readily picked up on the surface of the material and brushed or smoothed on the parts to be treated will be readily apparent from mere observation of FIGURES 2 and 3 of the drawings. In practice however, it will often be found more practical to package individual applicator mitts in sealed plastic bags or containers with the detergent, cleaning compound or medication impregnated into the mitt prior to packaging so that the mitt is ready to be drawn on to the hand and applied to the intended use as soon as it is removed from the sealed package.

Having thus described my invention, I claim:

1. A disposable half-glove medical applicator and cleaning mitt comprising:

(A) an elongated sheet of flexible, stretchable material having an absorbent surface cut to form
  (1) a trank which
  (2) when folded upon itself, and
  (3) stitched along its outside edges produces
(B) an abbreviated palm section;
(C) an abbreviated back section;
(D) a sheath adapted to provide a common cover for only the three outermost fingers of the human hand;
(E) a fingerstall adapted to cover the index finger only;
(F) an abbreviated cuff section of just sufficient length to reach just back of the knuckles of the user without including the thumb;
(G) an elastic band so secured in the cuff opening of the mitt as to prevent the device from slipping off over the knuckles during use.

2. The disposable half-glove medical cleaning and applicator mitt described in claim **1** provided with a protective barrier liner of material impervious to the medications and compositions to which the absorbent surface of the mitt may be exposed.

3. The disposable half-glove medical cleaning and applicator mitt described in claim **1** impregnated with a washing and cleaning compound.

4. The disposable half-glove medical cleaning and applicator mitt described in claim **1** impregnated with a medication.

5. A disposable half-glove cleaning and applicator mitt having the structure described in claim **1** but fabricated from a rubber like material with at least the palm side of the finger sheath and finger stall covered with an absorbent surface material.

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