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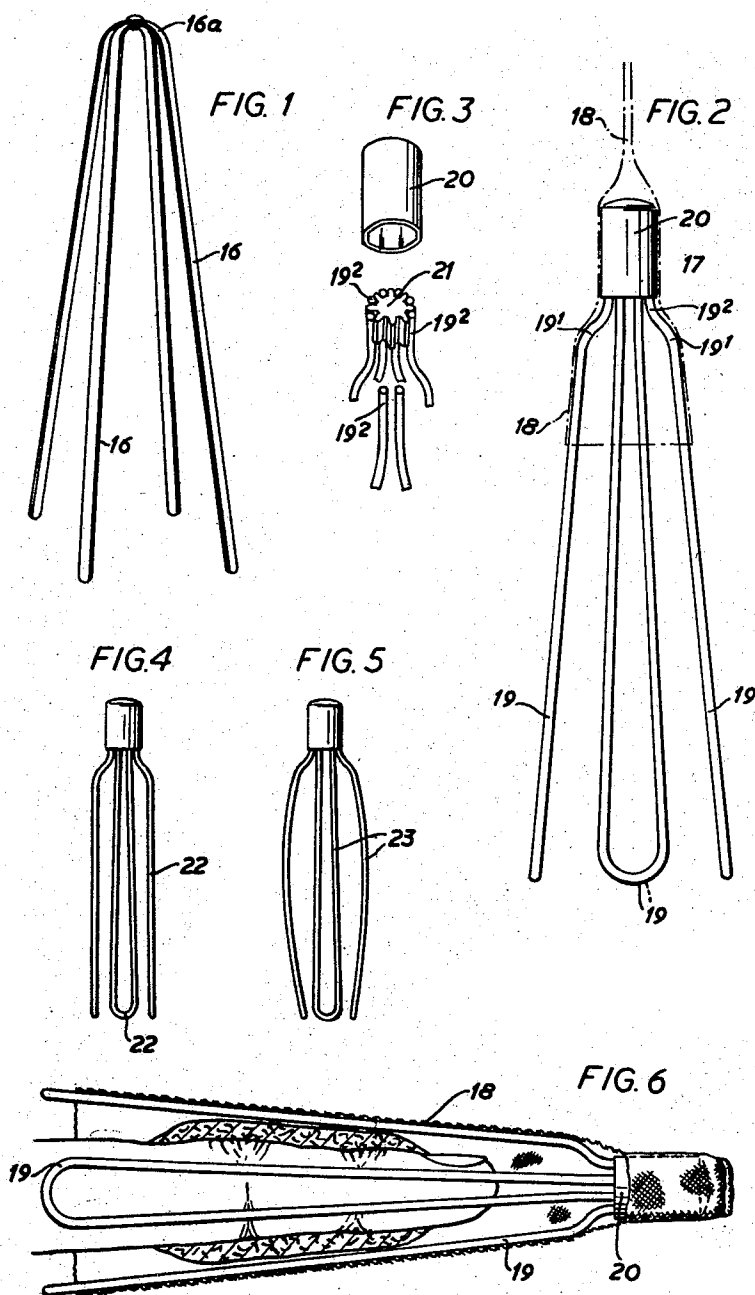
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APPLICATORS FOR SURGICAL BANDAGES

Filed April 28, 1954

2 Sheets-Sheet 1



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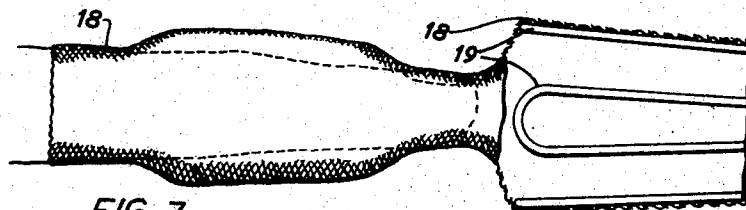
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APPLICATORS FOR SURGICAL BANDAGES

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Claims priority, application Great Britain May 1, 1953

1 Claim. (Cl. 128—157)

This invention relates to improvements in applicators for tubular bandages, and has for its object to provide an improved construction of applicator which, while being more useful and efficient in operation and more easily manufactured and more attractive in appearance, can be made in a variety of sizes so that the range of uses can be considerably increased.

According to the present invention, an applicator for a tubular bandage comprises a plurality of resilient members or fingers or the like connected together at one end, and adapted to carry a length of tubular bandage around them and, by a to-and-fro movement over a part of a patient's body, to dispense the bandage in successive layers on such part.

Conveniently, the applicator may be open at both ends so as to be passed completely on to a limb or other body part. Preferably, where the applicator is to be used for applying a bandage, say to a finger, it is open at one end only and has a reduced lead-in portion at the other end to facilitate entrance into a tubular bandage.

The invention will now be described in more detail with reference to the accompanying drawings wherein several alternative constructions are illustrated, and in said drawings:

Fig. 1 is a perspective view of one example of applicator devised for the purpose of applying a tubular bandage to a finger.

Fig. 2 is a front view of a modified construction of applicator for a purpose similar to that of Fig. 1 but having a reduced lead-in portion to facilitate entrance into a tubular bandage, and being designed for use in a surgery or clinic, or a casualty centre;

Fig. 3 is an exploded part perspective view of Fig. 2;

Figs. 4 and 5 are side views of modified constructions similar to Fig. 2;

Fig. 6 is a side view of the applicator illustrated in Fig. 2 and showing the initial stage of applying a tubular bandage to a finger; and

Fig. 7 shows the next stage of applying the bandage to a finger.

Referring first to the applicator illustrated by Fig. 1, the applicator is fashioned from two substantially U-shaped members 16, the legs of which are slightly splayed outwards and being, for example, riveted or otherwise secured together at their bases 16a disposed at right-angles. This applicator is specifically designed for applying a tubular bandage to a finger and a preferred example of this type is illustrated in Figs. 2 and 3, wherein the applicator is provided with a lead-in portion 17 at its smaller end to facilitate its being entered into the end of a tubular bandage 18, as illustrated in Fig. 2. This is particularly advantageous with the smaller sizes of bandages which, when in their flat condition, are not readily stretched over a larger sized component. In this construction, however, the leading end of the applicator is not substantially larger than (and is preferably slightly smaller than) the interior cross-section of the bandage. There are four tongue or jaw-like members 19 on the

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applicator, each made by bending a loop of wire on itself so as to have the two folds converging towards each other from an open bend. Near their free ends, the folds are joggled or cranked at 19¹ in a plane at right-angles to the plane of the loop so that, with the end portions 19² of four loops arranged parallel to each other, side by side, the four tongues or jaws diverge from each other having their looped ends spread, but being capable of being pressed inwards towards each other against the inherent springiness of the wire.

The side-by-side ends are enclosed within a metal cap or thimble 20, and the whole may be welded or brazed together, or as shown in Fig. 3, the bunched ends may be preferably secured within the metal thimble or cap by locating them between the teeth of a sprocket-like element 21 housed within the thimble. There is thus provided a tubular bandage applicator having a relatively small, round-ended cap at the leading end, easily inserted into the bandage, and having a series of straight, open-looped resilient members or fingers diverging from each other and stiff enough to stretch the bandage when pushed over them, but flexible enough to be pressed towards each other to relieve the bandage as it is pulled off their free ends.

As illustrated in Figs. 6 and 7, the required length of tubular bandage is first applied to the outer periphery of the applicator, in manner indicated in Fig. 2, and the applicator is then placed, say over a patient's finger, the end of the bandage is held momentarily, and the applicator is withdrawn, thus leaving a layer of bandage on the finger, for example over a dressing. As illustrated in Fig. 7, withdrawal of the applicator applies an initial length of bandage to the finger and the inherent resilience of the bandage ensures that it clings to the finger with the required tension or tightness. When the extremity of the finger is reached, see Fig. 7, one complete turn is applied to the applicator to close the end of the bandage on the finger, and a further covering or layer of bandage may be applied by advancing the applicator over the finger again. The bandage is applied in layers to the finger until the residue of the bandage on the applicator is exhausted or until a sufficient length has been applied to the finger. If desired, the bandage can be applied to a portion only of the patient's finger, and a turn applied to the bandage at each end of the traverse of the applicator.

In the modifications illustrated in Figs. 4 and 5, it will be seen that the resilient members, when they are unstressed or lie relaxed, instead of being splayed outwards to give the applicator a quasi-conical form as in Fig. 2, are substantially parallel, see fingers 22, Fig. 4, or they may even be splayed or curved inwards, see fingers 23, Fig. 5.

In a further modification an applicator for applying a tubular bandage to a patient's finger may comprise two pairs of resilient members with each pair being an integral part of a double loop of wire and made by bending a loop of wire on itself so as to have two limbs converging towards each other from an open bend, joggled or cranked near their free ends in a plane at right angles to the loops so that with the end portions of four loops arranged parallel to each other, side by side, the four tongues or jaws diverge from each other having their looped ends spread, but capable of being pressed inwards towards each other against the inherent springiness of the wire, said side by side ends being enclosed within a metal cap or thimble.

In a cheaper construction of applicator constructed according to Fig. 3, the resilient members may comprise four single wires of round or other suitable cross-section and bent to the required U-shape, with the bunched ends of the wires twisted together to form a lead-in portion at

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the smaller end to facilitate entry into a tubular bandage. Such an applicator, which could be plated to eliminate any sharp edges, could be sold with a tubular bandage in a unit pack.

The improved applicators are of particular value in that they enable the tubular bandages to be easily and quickly applied to an injured limb, in the most efficient manner. The processing of bandaging can be effected without undue pressure on the damaged portion and therefore without pain to the patient.

In all the constructions illustrated in the drawings or described herein the applicators, when formed of wire, may be made of stainless steel or similar non-corrodible metal or may be plated with a non-rust metal suitable for sterilizing, or may be coated or covered with a plastic material or may be even made wholly of plastic material.

I claim:

An applicator for applying an elongated stretchable pliable tubular bandage in superposed layers to a body member of a patient by a back and forth movement of the applicator relative to the longitudinal axis of and around

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the body member of the discharge of the bandage in lengthwise portions thereof as superposed layers onto the patient's member comprising in combination; a cylindrical head, a plurality of U shaped wire loops constituting fingers, the loops of said plurality thereof being bent with an S bend adjacent the open ends, the open ends of the loops of said plurality thereof being secured within said cylindrical head, the closed ends of the loops of said plurality thereof being arranged to extend outwardly from the central axis of said cylindrical head in normally diverging relation, the loops of said plurality thereof being spaced equally around the central axis of said cylindrical head defining a body-member-receiving socket-like zone.

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