Aug. 2, 1966 B. ROSENFIELD 3,263,682

ROLLED FINGER BANDAGE

Filed Jan. 2, 1964

FIG. 1

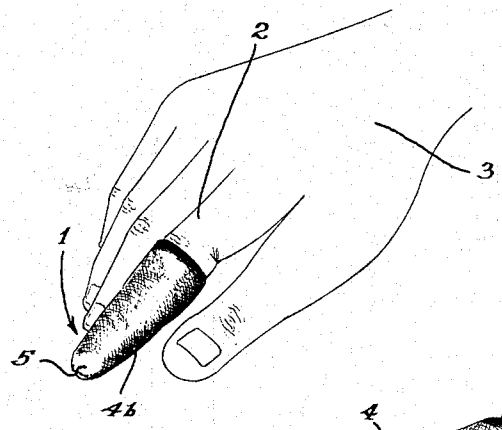


FIG. 2

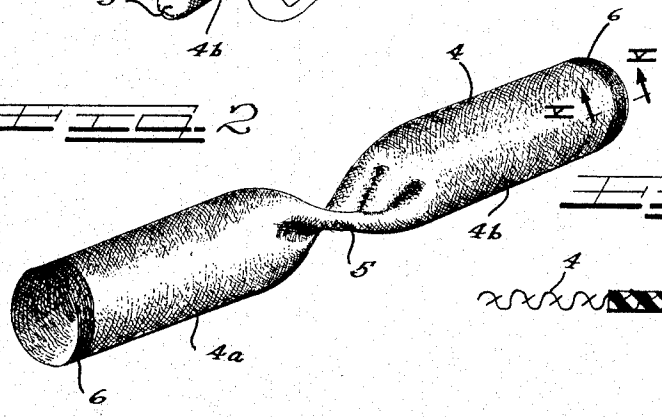


FIG. 5

FIG. 4

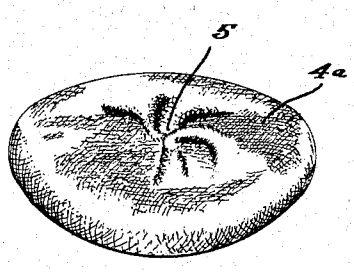


FIG. 3

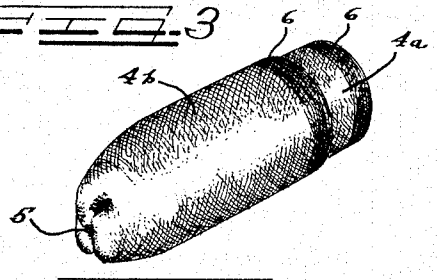
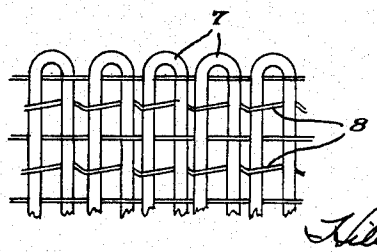


FIG. 6



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ROLLED FINGER BANDAGE

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5 Claims. (Cl. 128—157)

This invention relates to improvements in a rolled finger bandage, and more particularly to a finger bandage made of a tubular woven fabric such as a soft gauze, for example, and which is designed to be placed over a digit such as a finger or toe and retained in position without any further aid, although the bandage may be made sufficiently large to cover a hand or foot, if so desired, as will be apparent to one skilled in the art.

In the past, tubular gauze bandages have been utilized. As heretofore utilized, a piece of gauze woven in tubular form was separated from a strip of such gauze of indefinite length. The piece so separated was slightly over twice as long as necessary to cover a digit or a desired portion of a digit, and with the aid of an applicator somewhat of the form of a finger splint, the bandage was first placed upon the applicator, then the applicator placed over the digit, withdrawn to leave a portion of the bandage on the digit, and the remainder of the bandage and the applicator were then twisted a desired extent, and the applicator again pushed over the digit to retrovert the remainder of the bandage over that already on the digit, giving a two-ply covering. The bandage was then anchored in position with the aid of one or more pieces of adhesive tape. This is shown and described more fully in the Hendrickson et al. U.S. Letters Patent No. 2,456,507 of December 14, 1948. This formerly known type of bandage and its method of application, while highly desirable for use in clinics, hospitals, and the like by interns, physicians, surgeons, and other operators, did not become popular for home usage because of the necessary instructions and equipment needed to properly apply the bandage, and the possibility of error or the infliction of pain to the injured in the event of a mistaken, hasty, or careless application.

With the foregoing in mind, it is an important object of the instant invention to provide a rolled tubular bandage, which may be applied to a digit or other part of the body merely by pushing it over the digit, for example, unrolling the bandage as it passes over the digit.

Another feature of the instant invention it to provide a rolled tubular bandage comprising an elongated tube twisted substantially centrally thereof and with one part of the tube retroverted over the other, and then the double wall bandage with one end closed rolled into compact form for ready unrolling application.

It is also a feature of this invention to provide a tubular bandage arranged to be self-sustaining upon a digit.

Still another object of the invention is the provision of a tubular bandage, centrally twisted with one portion retroverted over the other, and both portions rolled, with at least one end of the bandage provided with elastic circumscribing means by which the bandage is held in position over a digit or other part of the body.

While some of the more salient features, characteristics and advantages of the instant invention have been above pointed out, others will become apparent from the following disclosures, taken in conjunction with the accompanying drawing, in which:

FIGURE 1 is a fragmentary view illustrating a bandage embodying principles of the instant invention in operative position upon a finger;

FIGURE 2 is an enlarged view of the bandage itself during its formation into the ultimate product;

FIGURE 3 is a view of the bandage during its making and prior to rolling;

FIGURE 4 is a view of the completed rolled bandage;

FIGURE 5 is a fragmentary greatly enlarged vertical sectional view taken substantially as indicated by the line V—V of FIGURE 2, looking in the direction of the arrows; and

FIGURE 6 is a greatly enlarged view of an end portion of the bandage illustrating a slightly different construction from that of FIGURE 5.

As shown on the drawings:

In FIGURE 1, the illustrated embodiment of the instant invention, generally indicated by numeral **1**, is shown in operative position on the first finger **2** of a hand **3**. In this instance, the bandage only reaches the second joint of the finger, but it will be understood that the bandages may be made in various sizes so as to fit all men's, women's and children's fingers and toes and, as stated above, if the bandage in some instances is desired to cover a hand or foot it may be made that large. For purposes of example, however, the bandage is herein shown and described as a finger bandage.

With reference to FIGURE 2 it will be seen that the bandage is initially a length of tubular material **4**, and a satisfactory material is soft cotton gauze, knitted to form a tube of a desired diameter. This material is somewhat stretchable by virtue of its knitting, and has recovery power. Accordingly, if a tube of the right diameter is chosen, the bandage will nestle closely around the finger when applied, but will merely embrace the finger snugly without causing injurious constriction.

As seen in FIGURE 2, the bandage is shown with an intermediate twist **5** therein separating two parts of the bandage, **4***a* and **4***b*. In making the bandage, it is a simple expedient to utilize a suitable applicator, place all the bandage on the applicator, position the applicator over a rod or the like and hold the end of the bandage, draw off the applicator leaving the part **4***a* on the rod, twist the bandage as at **5**, and then retrovert the part **4***b* over the part **4***a*, as explained in the aforesaid Patent No. 2,456,507. This provides the structure seen in FIGURE 3.

After the structure seen in FIGURE 3 with the part **4***b* retroverted over the part **4***a* to provide a double-ply bandage has been formed, the double-ply bandage is then rolled into a tight roll from the open end thereof toward the closed end to provide the structure shown in FIGURE 4. This rolling will be a straight outside roll so that as the bandage is seen in FIGURE 4, the inside or finger contacting portion of the twist **5** is visible with the ultimate interior of the part **4***a* exposed around it.

Now with the instant invention the bandage once applied to the finger or other digit is self-sustaining in that it automatically retains itself in position without further aid. This is accomplished by dipping one end of the severed tube **4** into liquid latex or equivalent elastic material as indicated at **6**, the magnified showing being in FIGURE 5. The latex then will have a normal diameter the same as that of the bandage when dipped, and thereafter the latex will be stretchable and retractable along with the bandage end in the same manner as a rubber band.

In FIGURE 6 I have shown a different way of rendering an end of the tube **4** elastic, and in this instance the bandage threads **7** may have elastic threads **8** woven thereacross at the end portion of the bandage. This will function the same as the structure above described but the bandage end will not be as visible as the structure of FIGURE 5.

It is only necessary to provide the elastic means at one end of the tube **4** and if such is the case, that end of the tube should be on the outer bandage flap **4***b* in the

illustrated instance so that it will not only hold the outer flap in place but also keep the inner flap in poistion. On the other hand, the opposite end of the bandage may also be provided with elastic means so that each layer of the ultimate bandage has its own elastic end portion. In that event, it is preferable that the bandage be so constructed that when placed on a finger the outer portion *4b* is a trifle shorter than the portion *4a*, as seen in FIGURE 3, so that the two elastic portions **6—6** are not concentric one within the other which might result in undue constriction of the digit.

It is a simple expedient to take a finished bandage and assuming an injury on the tip or side of a finger, place the end of a finger against the inside of the twist **5** as seen in FIGURE 4 and gently unroll the bandage down the length of the finger. Once the bandage is positioned on the finger it automatically stays in that position without any further aid. It will be noted that the bandage can be extremely quickly applied and when applied forms a cushioning effect for the end of the finger by virtue of the twist **5**, and gives a soft snug fitting engagement around the finger.

Obviously, the bandages may come in individually sterile packets and, as stated above, may be made in various sizes. The resultant bandage is not only easy to apply, effective in use, but also highly economical.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. A bandage comprising

a single oppositely open ended tube of fabric twisted intermediately with a first portion on one side of the twist retroverted over a second portion on the other side of the twist and with the open ends of said portions adjacent to one another,

said twist forming a closed end for the bandage, and

said fabric having elastic strands woven therein circumferentially of the tube adjacent the open end only of at least one of said portions to automatically hold the bandage in place when applied to the body of a user.

2. A bandage for a digit or appendage, comprising:

a single fabric oppositely open ended tube having a twist intermediately to provide a closed end for the bandage,

that portion of the tube on one side of the twist being retroverted over the remaining portion of the tube on the other side of the twist to provide a double wall,

and at least one of said portions having an elastic stretchable and retractable free end margin to grip a digit or appendage to which applied and hold the bandage in position thereon.

3. A bandage as defined in claim **2**, in which the double wall is rolled toward the closed end to facilitate application of the bandage by unrolling the bandage onto a digit or appendage.

4. A bandage as defined in claim **2**, in which said twist is so located that one of said portions is shorter than the other portion.

5. A bandage as defined in claim **2**, in which said free end margin comprises a dipped elastic coating.

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