

[54] **ELASTIC BANDAGE**
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 [51] Int. Cl. **A61f 13/10**
 [58] Field of Search. 128/77, 157, 165, 166, DIG. 15,
 128/169; 273/54 B, 166; 2/162, 163

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Attorney—Peter L. Klempay

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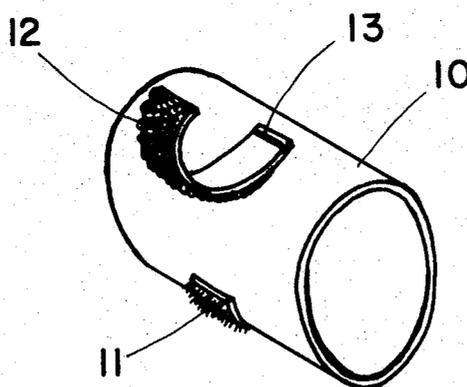
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[57] **ABSTRACT**

An elastic bandage for use on human limbs which consists of a length of tubular elastic material which can be easily slipped over the user's hand or foot. When the bandage is at the desired location a portion of the bandage is doubled over itself to provide sufficient tension. Suitable fastening means, such as mating pieces of Velcro, are provided to hold the doubled over portion in place.

4 Claims, 8 Drawing Figures



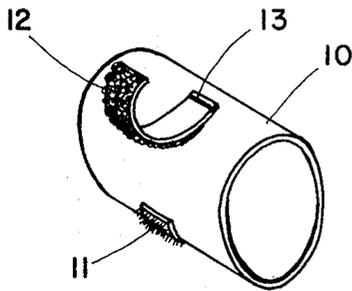


FIG. 1

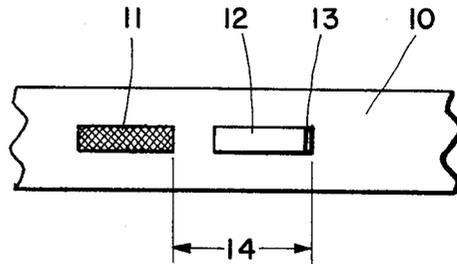


FIG. 2

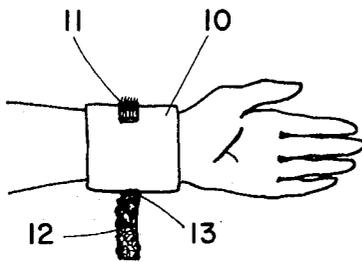


FIG. 3

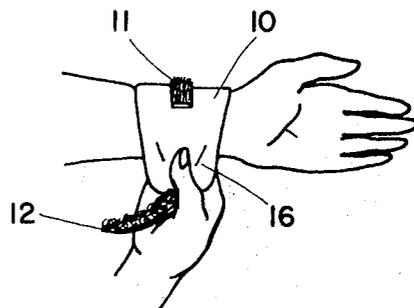


FIG. 4

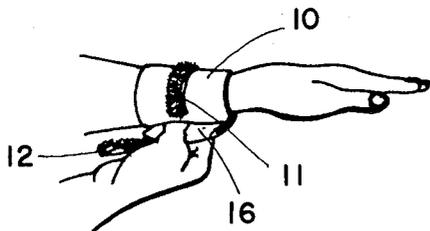


FIG. 5

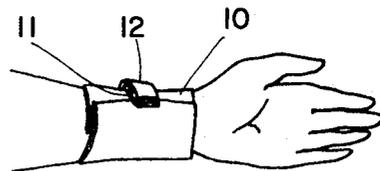


FIG. 6

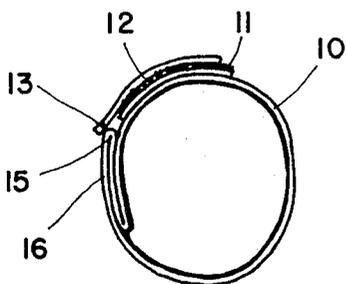
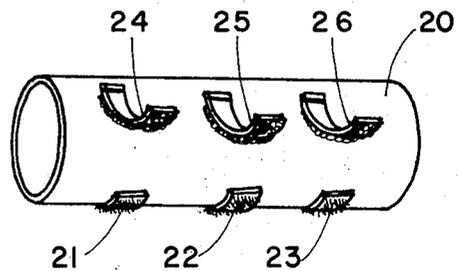


FIG. 7

FIG. 8



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ELASTIC BANDAGE

This invention relates to an elastic bandage for use on human arms or legs and more particularly to an elastic bandage which may be easily positioned in the desired location and which may be easily secured to

Presently employed elastic bandages used to protect sprained muscles and weak joints, among other uses, are difficult for the wearer to properly apply without assistance. This is especially true when the bandage must be applied to an arm as the wearer then has only one hand free to position the bandage, wrap it so as to apply the desired amount of tension, and secure the bandage in place.

It is the primary object of the present invention to provide an improved elastic bandage which a user may readily position and secure in the desired location without assistance. It is also an object of the present invention to provide an elastic bandage which the user may position and secure in the desired location and with the desired amount of tension with the use of only one hand. A further object of the invention is the provision of an elastic bandage which when installed, presents a neat appearance. Another object of the present invention is the provision of an elastic bandage which is of simple and inexpensive construction.

In accordance with the principles of my invention these objectives are fulfilled by providing an elastic bandage in tubular form which may be folded over itself along a portion of its circumference and which includes easily fastened securing means to hold the folded-over portions in place.

The above and other objects and advantages of my invention will become apparent upon consideration of the following specification and the accompanying drawing wherein there is shown a preferred embodiment of the invention.

In the drawing:

FIG. 1 is a perspective side view of the elastic bandage of my invention;

FIG. 2 is a plan view of the bandage of FIG. 1 in which the bandage has been slit and flattened to show the relative locations of the fastening members;

FIG. 3 is a pictorial view showing the elastic bandage positioned on the user's arm in an untightened state;

FIGS. 4 and 5 are pictorial views showing the bandage in various stages of being secured to the user's arm;

FIG. 6 is a pictorial view showing the bandage applied and tightened on a user's arm;

FIG. 7 is a cross-sectional view showing the bandage in a tightened position; and

FIG. 8 is a perspective side view of a second embodiment of the elastic bandage of my invention.

As will be seen from FIGS. 1 and 2, the bandage of my invention consists of a length of tubular elastic material 10. Secured to the outer surface of the band 10 are a pair of mating fastening members 11 and 12. These fastening members 11 and 12 preferably consist of mating pieces of Velcro, one member consisting of a piece of material having numerous closely spaced hook-like elements on one surface and the other member having numerous closely spaced loop-like elements on one surface. The first fastening member 11 is secured along its entire length to the elastic band 10 midway between opposite edges of the band. The second fastening member 12 is also secured to the band

10 midway between its edges but is spaced from the first fastening member 11 and is secured to the band 10 along only one edge 13 of the fastening member 12. Preferably, the distance between the first fastening member 11 and the edge 13 of the second fastening member 12, designated by the reference numeral 14, is equal to approximately one third of the circumference of the band 10.

The band 10 may be formed of a seamless tubular elastic material or of a flat elastic material stitched or otherwise joined to form a tubular member. The diameter of the band 10 is such that the band may be slipped over the wearer's hand or foot easily.

The bandage is applied to the desired location on the arm or leg of the user by first slipping the band onto the limb and positioning it in the area to which it is desired to apply tension. When the band is in this position, as shown in FIG. 3, it loosely surrounds the limb and may be easily moved to the exact location desired. The user now grips the band 10 between his thumb and fingers so that the thumb is in the region 14 and the fingers are on the opposite side of the point 13 at which the fastening member 12 is attached to the band. As shown in FIG. 4, while holding the band in this manner the user pulls the gripped portion of the band away from the limb. It should be noted that the band is gripped in such a manner that the point of attachment 13 of the second fastening member 12 is on the fold line 15 between the regions of the band gripped by the user's thumb and fingers. When the band has been pulled sufficiently tight that the desired amount of tension is provided, the portion of the band 16 gripped between the thumb and fingers is folded so that the region 14 is doubled over itself. During the folding of the portion 16 the thumb and fingers remain firmly clamped to the band to maintain the desired tension. As shown in FIG. 5, as the region 16 is folded the user's thumb and fingers are gradually slid toward the fold 15. When the fold has been completed, the user maintains his fingers on the folded-over portions 16 closely adjacent to the fold 15 and uses his thumb to press the fastening member 12 into contact with the fastening member 11 thereby securing the fold in place. The band 10 is now tightly wrapped around the user's limb applying the desired tension thereto. The fastening members 11 and 12 hold the folded-over portions 16 securely in place, maintaining the desired tension. In order to release the bandage it is merely necessary to pull the fastening member 12 free from its mating member 11. This returns the bandage to the position shown in FIG. 3 and permits its easy removal.

This technique for applying the bandage is, of course, not the only one which may be used. Other techniques may be employed and, when the bandage is to be applied to certain areas of the body, a technique different from that described may be preferred. However, regardless of the method used to apply the bandage, the basic method remains the same. The band 10 is positioned at the desired location, stretched to achieve the desired tension, doubled over itself, and secured by the fastening members.

When bandage 10 is in its applied position on the user's limb, a portion of the second fastening member 12 is in engagement with the first fastening member 11. This portion is separated from the attachment point 13

by a distance which is less than the distance 14, measured along the surface of the sleeve, between the point of attachment 13 and the first fastening member 11.

When it is desired to apply the bandage to a larger area the embodiment shown in FIG. 8 may be used. In this embodiment there is provided an elongated tubular band 20 provided at spaced intervals along its length with first fastening members 21, 22, 23 and associated second fastening members 24, 25, 26. Preferrably, the first fastening members consist of pieces of Velcro secured to the band in the same manner as the fastening members 11 of the previously described embodiment. Likewise, the second fastening members 24-26 are preferrably tabs of a mating Velcro material, in the same fashion as a second fastening members 12 of the previously described embodiment. In applying this bandage the same sequence is followed as with the previous embodiment, the middle pair of fastening members 22 and 25 preferrably being fastened first and the end pairs of fastening members 21, 24, and 23, 26 being then fastened.

It should be noted that while the use of Velcro material for the first and second fastening members facilitates the application of the bandage, other fastening means may be used, if desired. For example, the first fastening means may consist of a clamping type buckle and the second fastening means of a strip of tape secured at one end to the band 10 and threaded through the buckle forming the first fastening means.

It should also be noted that the band 10 may be provided with auxiliary straps to apply tension across the user's wrist to his fingers. For example, the band 10 of the present invention may be substituted for the wrist encircling band shown in my copending application Ser. No. 813,546, filed Apr. 4, 1969, for "Wrist Restraint for Golfers and Bowlers," now U.S. Pat. No. 3,606,343 granted 1971. 20, 191.

I claim:

1. An elastic bandage for use on a human limb, comprising:

a circumferentially continuous tubular elastic sleeve of such diameter as to have free sliding relation with the portion of the limb on which the bandage is to be applied; and

at least one set of fastening members including a first fastening member secured to the outer surface of the sleeve and a second fastening member in the form of an elongated strip secured along only one end thereof to the outer surface of the sleeve in circumferentially spaced relation to the first fastening member, a portion of the second member fastening spaced from the point of attachment, said portion being adapted for retaining engagement with the first fastening member, the distance between the secured end of the second fastening member and said portion being less than the distance along the surface of the sleeve between the secured end of the second fastening member and the first fastening member whereby a portion of the sleeve is retained in folded-over relation by the fastening members when the members are in retaining engagement with one another.

2. An elastic bandage according to claim 1 further characterized in that one of said fastening members comprises a piece of material having numerous closely spaced hook-like elements on one surface thereof and the other of said fastening members comprises a piece of material having numerous closely spaced loop-like elements on one surface thereof.

3. The elastic bandage according to claim 1 wherein the bandage has a plurality of sets of fastening members.

4. The elastic bandage according to claim 3 wherein the first fastening members are longitudinally aligned with one another and the second fastening members are longitudinally aligned with one another.

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