

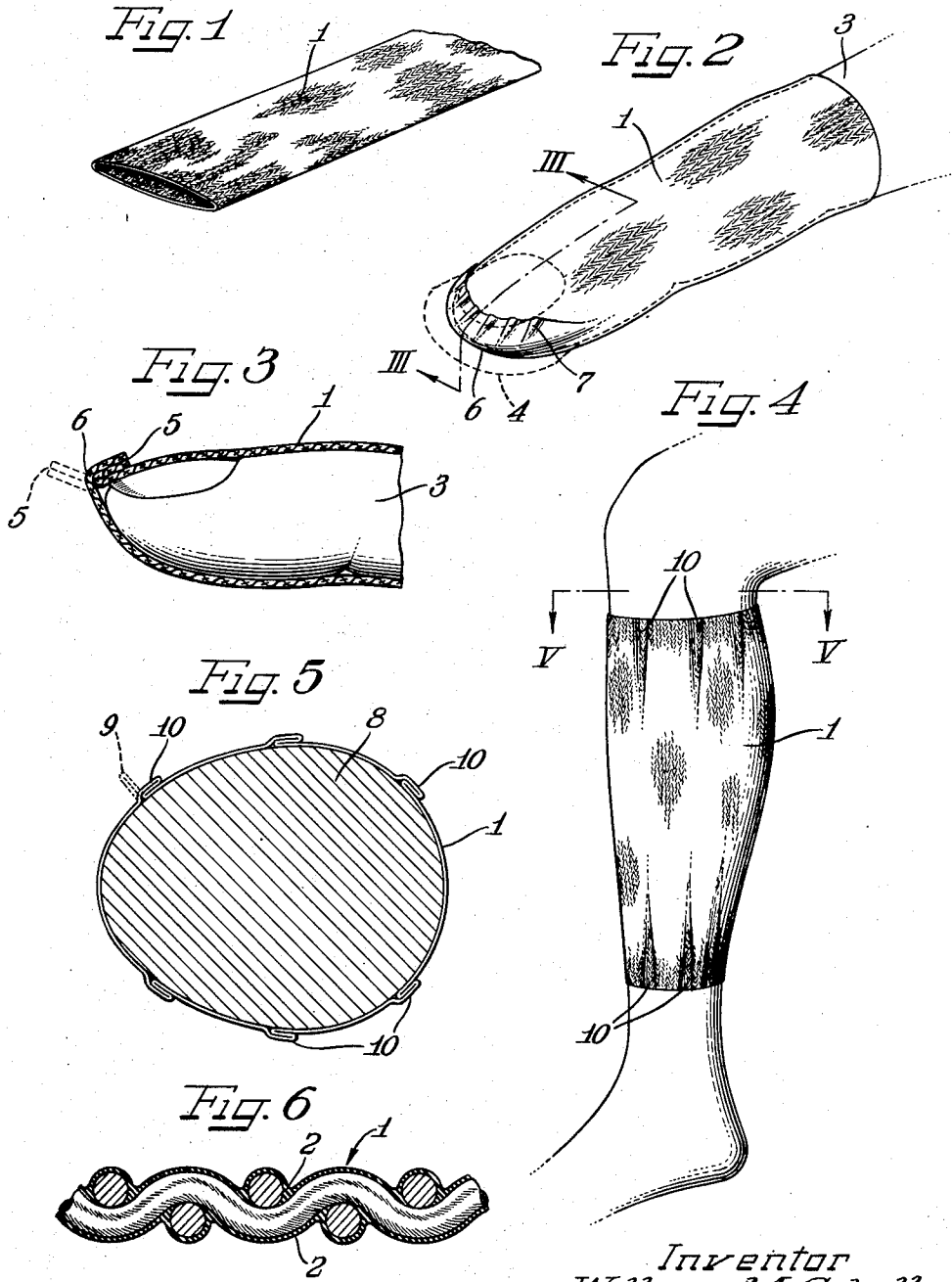
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SELF-BONDING TUBULAR BANDAGE

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SELF-BONDING TUBULAR BANDAGE

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1

This invention relates to improvements in a tubular bandage, and more particularly to an open-ended tubular bandage of the character utilized for medical and surgical dressing for the protection of wounds, afflictions, and like ailments or injuries to the human body, although the invention may have other uses and purposes as will be apparent to one skilled in the art.

Tubular bandages, made of gauze and similar material having a definite stretch when applied, have become recognized as a very desirable medium as a body dressing, especially when application is desired to the fingers, hands, arms, feet and legs, and even in some instances to the head of the human body. One reason such bandages have become desirable is because of the ease of application, and the fact that the particular portion of the body desired is fully covered by the mere drawing on of the bandage. In the past, difficulty has been experienced, however, in the proper securement of the bandage to the particular region of the body desired after the bandage had been placed in position. In nearly every case this required a cutting of the bandage, a tying operation, or the application of some external medium such as a clip, pin, or one or more pieces of adhesive tape to hold the bandage securely in place. This was especially true when a tubular bandage was applied to the calf of the leg, for example, wherein the bandage might snugly fit the portion of the leg of greater diameter, but would be loose thereabove and therebelow, requiring some extraneous expedient to properly anchor the bandage in position against accidental dislodgement.

With the foregoing in mind, it is an important object of the instant invention to provide a tubular bandage of such construction that the bandage will adhere to itself, but not to the body of the patient.

Another object of the invention is the provision of a self-bonding tubular bandage which may be readily drawn on over a part of the body, and then pressed together at the free open end thereof to fully enclose the respective part of the body.

It is also an object of this invention to provide a self-bonding tubular bandage which when applied over a portion of the body varying in diameter, such as the calf of a leg for example, may easily be pinched or pressed together in the form of pleats above and below the portion of the body of greatest diameter, so that the bandage will snugly fit over its entire application, the pleats of the bandage adhering to themselves,

2

but providing no adhesion to the body of the user.

It is a further feature of this invention to provide a self-bonding tubular bandage which may be applied over a digit or extremity of the body, pressed together to close the open outer end of the bandage, and folded back upon itself to any desired extent to provide a neat appearing seal or to provide a pad or cushion comprising multiple thicknesses of bandage whenever needed.

Also an object of this invention is the provision of a tubular bandage which may be more easily, quickly, and properly applied than bandages of this character heretofore known, and which bandage remains firmly in place without the aid of any extraneous means to retain the bandage.

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 pictorial illustration of a tubular bandage embodying principles of the instant invention;

Figure 2 is also a pictorial illustration showing the bandage of Fig. 1 as applied over the forward part of a human finger;

Figure 3 is a fragmentary vertical sectional view, the finger being shown in elevation, taken substantially as indicated by the line III—III of Fig. 2, looking in the direction of the arrows;

Figure 4 is another pictorial illustration showing the application of a tubular bandage embodying principles of this invention over the calf portion of the human leg;

Figure 5 is a plan sectional view, enlarged, taken substantially as indicated by the line V—V of Fig. 4; and

Figure 6 is a highly magnified fragmentary sectional view through a single thickness of the bandage itself.

As shown on the drawings:

In the illustrated embodiment of this invention, there is shown a tubular bandage 1 which may be of various sizes and assorted sizes to fit over different parts of the human body. The bandage is preferably made of a seamless gauze or net fabric, knitted in any suitable manner to provide a stretch to the bandage, although many other and various materials that are satisfactory for this purpose will be apparent to one skilled in the art. Obviously, the preformed tubular bandage may be of any desired or indefinite length, and a piece of the proper length severed from the bandage stock when needed.

3

The instant bandage is of such construction as to be self-bonding, that is the bandage will adhere to itself, but will not adhesively attach itself to the human body. As indicated in the magnified showing of Fig. 6, the entire fabric of the bandage is covered with what might be termed a self-bonding material 2. For example, the fabric may be dipped in a substantially pure latex liquid and permitted to dry without any intentional degree of vulcanization of the latex. A bandage so processed, will then adhere to itself but not to the skin of a user.

In Figs. 2 and 3 I have illustrated one example of an application of the bandage, and in this instance it is to a finger of the hand, it being assumed for illustrative purposes only that the finger requires a covering over the first two joints and the tip of the finger. The bandage is first drawn over the finger 3 leaving a portion of the bandage indicated by the dotted line 4 in Fig. 2 extending beyond the tip of the finger. It is only necessary to squeeze this free portion of the bandage together, where one portion of the bandage will adhere to the contacting portion thereof, to provide a closure as indicated at 5 in Fig. 3. This closure may then, if desired, be folded back as at 6 from the dotted line position in Fig. 3 to the full line position and pleated or otherwise compressed as indicated at 7 in Fig. 2 to smoothly cap the entire end of the finger. Obviously, a greater portion of the bandage may be left projecting beyond the finger, and this portion repeatedly folded to provide a multi-ply cap over the tip of the finger to function as a shock absorbing cushion in case the tip of the finger has been injured. Should it be desired to leave the tip of the finger exposed, the bandage may be drawn over the finger back from the tip, and then the forward portion of the bandage pleated laterally around the tip of the finger to secure the bandage in position. Nothing else is needed in order to have the bandage remain upon the finger.

In Figs. 4 and 5 I have illustrated by way of further example, the application of the bandage to the leg between the knee and the ankle. In this instance, the bandage is drawn over the leg 8 so as to fully enclose the calf of the leg and extend thereabove and therebelow. Obviously, the calf of the leg is of greater diameter than that part of the leg between the calf and the knee, and of materially greater diameter than the part of the leg below the calf. It is a very simple expedient to pinch together excess portions of the bandage above and below the calf of the leg to form a fold as indicated by the dotted lines 9 in Fig. 5, and then press this fold back upon the body of the bandage to provide a neat appearing pleat 10, a number of such pleats being formed in the bandage around the leg. Since the bandage is self-adhering, the pleats when folded flat against the body portion of the bandage will stay in that position, and the entire bandage will remain closely and snugly applied around the length of leg it covers, regardless of changes in size of the leg. Clearly, no extraneous means are required to hold the bandage firmly in position. When it is desired to remove the bandage, it is a simple expedient to pull apart the pleats or folds and strip the bandage off the leg in a ready and facile manner, the bandage not having any adhesion to the leg, and the self-bonding characteristics of the bandage not being of a permanent character and not sufficiently strong to withstand an intentional separation, but only

4

sufficient in strength to prevent accidental or unintentional loosening or removal of the bandage.

A bandage of the character herein set forth may readily be provided over the top of the head of a user, and the bandage pressed together above the crown of the head, if so needed, without danger of the bandage adhering to the user's hair in an objectionable or painful manner. Thus, the self-bonding characteristics of the bandage, coupled with its inherent stretchability, provides a ready and easily applied bandage that remains firmly and snugly in position without extraneous aid.

It will at once be apparent that the bandage embodied in this invention is very economical to produce, and highly efficient in operation. The same bandage may also be applied, removed and reapplied a reasonable number of times, thus adding to the economy of use.

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 fabric knitted in tubular form and carrying a coating of self-bonding material that is non-adhering to the body of a user.

2. A bandage comprising a fabric knitted in tubular form and carrying a coating of self-bonding latex material entirely thereover.

3. A bandage comprising a seamless tube of self-adhering material non-adhering to the human body.

4. A bandage produced from an open ended tubular self-adhering fabric pressed together adjacent an end thereof and folded back upon the adjacent tubular part of the fabric.

5. A bandage produced from an open-ended tubular self-adhering fabric pinched together and folded to provide longitudinally extending pleats adjacent an end thereof.

6. A bandage produced from an open-ended tubular self-adhering fabric pressed together to close an end thereof and the end closing portion being reversely folded back upon the remaining tubular part of the fabric.

7. A bandage comprising a length of material preformed in tubular shape and carrying a coating of self-adhering material to facilitate folding and pleating of the bandage after application to provide a closure and a snug fit where desired on the body of a user.

8. A bandage comprising a length of preformed tubular fabric carrying a coating of material that is self-adhering but non-adhering to the body of a user to facilitate folding and pleating of the bandage after application to provide a closure and a snug fit where desired on the body of a user.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
709,767	Higgins	Sept. 23, 1932
1,885,007	Rosenblatt	Oct. 25, 1932
2,077,299	Abrams	Apr. 13, 1937
2,082,599	Sawyer	June 1, 1937
2,100,029	Gammeter	Nov. 23, 1937
2,238,878	Baitz	Apr. 22, 1941
2,254,915	Sawyer	Sept. 2, 1941
2,326,997	Hochman	Aug. 17, 1943