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R. VAN COURT
NON-FRAYING FABRIC STRIP

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Fig. 1.

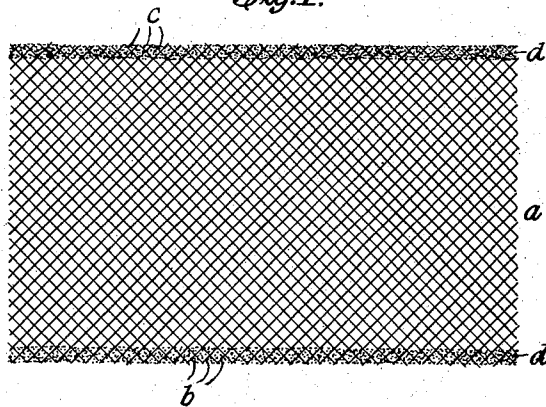
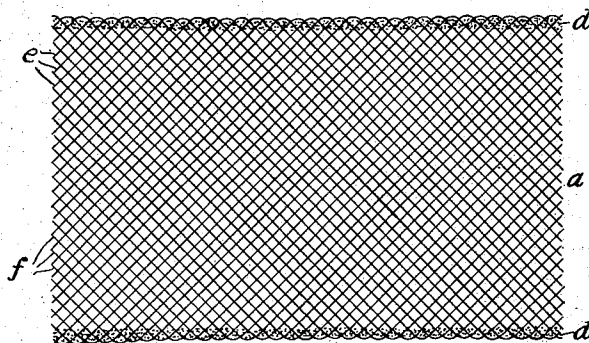


Fig. 2.



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NONFRAYING FABRIC STRIP

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1 Claim. (Cl. 28—80)

My invention relates to a fabric strip such as a surgical bandage, a tape, a ribbon or the like which will not fray or ravel at the edges, even if the said edges are subjected to friction, wear or other normal stresses which ordinarily might or would cause a fabric strip of the kind hereinabove described to fray or ravel, thereby losing its neat appearance and usefulness. Moreover, the fabric strip which is the subject of my invention, when used as a surgical bandage or tape, is capable of adapting itself readily to any, even or uneven, shape and to any protuberance of the human or animal body to which such strip may be applied. Yet, the application of the said fabric strip as a surgical bandage or tape does not require the same high degree of operative skill necessary to apply a bandage or tape of the conventional type effectively and neatly. It is a fact that fabric strips, such as bandages, ribbons or tapes frequently fray or ravel at the edges and as a result thereof present an unsightly, sloppy and unaesthetical appearance. The fabric strip which is the subject of my invention does not suffer from these defects. Its textile structure and/or the treatment thereof as hereinbelow described will permit it to retain its neat and smooth appearance, and if used as a surgical bandage or tape, will make it capable of facile application even on body members having an uneven anatomical topography. The person applying the bandage or tape need not possess particular operative skill and ability.

Having outlined the features of my invention, I shall now describe same in detail with the aid of the accompanying drawing in which

Fig. 1 shows a preferred form of embodiment of my invention, and

Fig. 2 shows a modification thereof.

The fabric *a* forming the body of the strip, bandage, tape, ribbon or the like is cut in such manner that the weft threads *b* and the warp threads *c* thereof, respectively, are disposed at a bias with respect to the longitudinal edges *e* of the said strip *a*. I have found that a fabric strip cut as hereinabove stated is very elastic, yielding, stretchable and, therefore, suitable for use as a surgical bandage or tape. Because of its elasticity and yieldability it need not be twisted or doubled over to insure a good and tight fit. However, I have also found that merely cutting a fabric strip so that the warp and weft threads thereof are at a bias with respect to the longitudinal edges will not prevent said edges from fraying and unravelling, notwithstanding any claim to the contrary. As a matter of fact, I

have found that the said edges will still fray and assume an unsightly sloppy and unaesthetical appearance after they have had some contact and friction with other objects. Now, I propose to apply to and to impregnate the said longitudinal edges along a narrow margin with a sterile chemical compound or sterile, rubberized compound, for example starch, rubberized adhesive or any other similar and suitable substance capable of binding the warp and weft thread ends yieldingly yet safely to one another so that they will not fray or ravel. The said compound shall be applied in liquid, pasty or viscous state so that it penetrates between the said weft and warp threads to an extent of not more than three rows and not less than one row of fabric meshes. Moreover, to assure a perfect flatness of the strip, the said compound upon drying must not project at either surface of the bandage. The drawing shows, at *d*, the extent to which the aforesaid chemical compound is applied to the bandage. I propose to apply the said compound to both longitudinal edges of the said fabric strip, by mechanical means prior to, during or after the cutting thereof. The said compound may be applied either by means of rollers or by causing the edges of the fabric to dip into a well or tank containing the liquid, pasty or viscous compound. However, I do not claim protection for the method of applying the compound. I have found that a fabric strip, for example a surgical bandage or tape, having the textile construction and the narrow marginal binding as hereinabove described is highly stretchable, elastic and yielding, transversely and longitudinally, even though its textile body may consist only of linen or cotton threads.

The application of the aforesaid compound will produce no thick edges and will not make the bandage too stiff.

As a modification of my invention, I propose the use, instead of a fabric strip whose warp and weft threads are cut at a bias with respect to the edges, a fabric strip, such as a surgical bandage, tape, ribbon or the like, whose weft and warp threads, respectively, are braided as shown in Fig. 2. The threads will then run obliquely across the strip and approximately at right angles with respect to one another. In Fig. 2 the weft threads are denoted by *e* and the warp threads by *f*. The said braid serves as an additional reinforcement of the said edges. The compound is applied thereto as hereinabove described in connection with Fig. 1.

The fabric strip forming the subject of the

modification and shown in Fig. 2 likewise possesses great stretchability, elasticity and ability to bulge at any point and to conform readily to any body protuberance to which it may be applied.

It is understood that my invention shall not be limited to surgical bandages or tapes but that it may also be applied to ribbons, laces and other

textile bands such as are used in the millinery and allied trades.

What I claim is:

A fabric strip cut on the bias, the lengthwise edges of which are provided with a thin and narrow marginal application of sterile, rubberized compound.

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