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**BANDAGING MATERIAL FOR MEDICAL PURPOSE**

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4 Claims. (Cl. 128—156)

The present invention relates to a bandage, a bandaging material and the like for medical purposes.

Mull strips produced out of threaded material and in kind of weave, therefore being supple in the use, and which may be pressed packed without losing space, are used as bandages for medical purposes, bandaging material and the like.

Furthermore there are known for the same purposes so-called paper bandages, to which is applied a certain elasticity by creping. Simultaneously the creping reinforces the bandaging strip which winded up is additionally very voluminous. Moreover, at the treatment of creped papers it is known to provide the creped breadth with embossed strips or other decorative patterns.

The surprising fact was found that the flexibility being significant for bandages out of mull may be obtained by using strips of fabrics other than mull if in accordance with the invention there is provided a breadth of fabric being creped and which has embossed areas each encompassing several creped folds. Conveniently the embossed areas are locally limited and three-dimensional. The embossment is applied to the whole breadth of the fabric in uniform distribution.

According to a preferred feature of the invention the creping and the supplementary embossment is applied to fabrics out of solidated fibre fleeces or fleece material.

According to a further feature of the invention the creped and then embossed product can be treated by rollers of a smoothing equipment.

The creping is achieved in accordance with known methods, for example, by using creping rollers the lower one of which is a steel roller having a rough surface and the upper one of which is a faster driven roller. The creping may be for example 60% of the total length. The breadth being thus creped is then led e.g. through an embossing calender, the lower roller of which made out of steel is provided with an embossing pattern. This may consist of adjacent cupola shaped projections which are thus formed during the embossment in the gap between the rollers in front of an upper roller having a softer surface whereby the degree of humidity of the breadth may be small.

Each embossed area all over the breadth of the fabric is executed in a three-dimensional way. This results in the fact that the edges of the embossed areas interrupt locally the transversal creped folds. Furthermore, the creped folds are similarly drawn into the contours of each embossed area or somewhat shrunk with the result that the creping is stabilized.

A fleece material consisting of solidified fibre fleeces

of cellulosic fibres reinforced without addition of adhesives proves particularly suitable.

Under application the bandages or the bandaging material produced according to the invention are characterized by a high elasticity and also a flexibility corresponding to that of bandages out of mull. This is brought back to the fact that the bandage being creped and afterwards embossed over the whole breadth is edgewise elastic when submitted to a tensile stress. The creped folds are interrupted by the embossed pattern. The embossment is applied to all creped folds which are released only after the dissolution of the embossment.

Moreover, the bandages can be smoothed without abandoning either the dilatability or the flexibility when treated by means of rollers, while the material only being creped will give up the dilatability. The characteristic qualities desired for the bandaging material will be unchanged too if the creped and embossed bandage is winded up or pressed for the storage in an ambulance-box or a field-dressing so that nearly the same space-sparing package may be obtained as if using bandages out of mull. In addition, however, to these results an increased dilatability is attained so that the bandaging material is also fit for the production of compression-material. The embossed patterns may be carried out in the shape of cupolas, flat pyramids or the like.

All fabrics ready for creping and satisfying all demands for bandaging material prove suitable as bandages. This is important in respect to the hygienic demands and to the ability to be sterilized. The bandages can be produced as wide breadth and then be cut out to the desired shape.

Having thus described the invention, what is claimed is:

1. A bandage for medical purposes, comprising a single web of creped material, three-dimensional embossed areas on said web extending over a plurality of creped folds and pulling said crepe folds into dome-shaped elevations while maintaining the creped formation, said crepe folds being consolidated or compacted at the lower edge of the embossed areas by compression of said creped folds.

2. A bandage according to claim 1, in which the embossed areas are uniformly distributed over a continuous web.

3. A bandage for medical purposes, a single layer web of creped fiber fleece material, embossed areas on said web extending over a plurality of creped folds and pulling the same into dome-shaped elevations while maintaining the creping, the creped folds at the lower edges of the embossed areas being compacted and the fibers of the material thus held together.

4. A bandage according to claim 3, in which the creped and embossed web material is rolled smooth.

**References Cited by the Examiner**

**UNITED STATES PATENTS**

2,304,123	12/1942	Rowe	161—128 X
2,531,931	11/1950	Arkell	161—128
2,573,773	11/1951	Rowe	161—148
2,874,618	2/1959	Yang	161—128 X

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