May 1, 1934. H. A. SECRIST 1,956,596

CATAMENIAL BANDAGE

Filed Oct. 12, 1932

Fig. 1

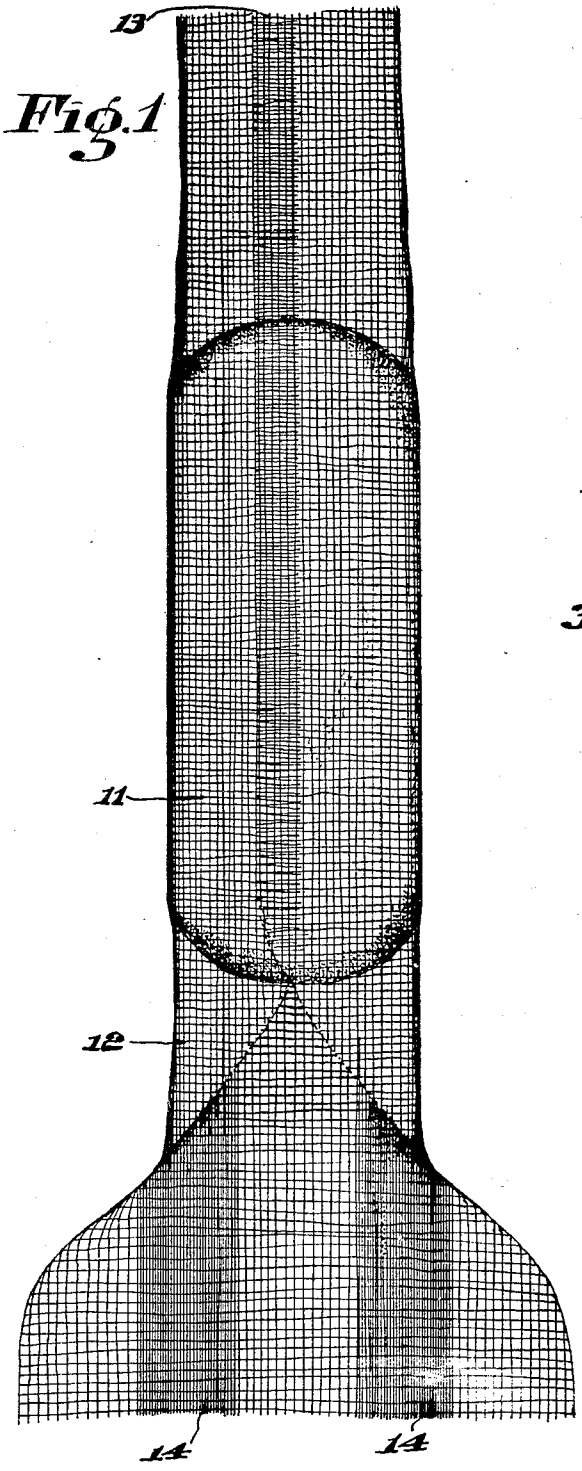


Fig. 2

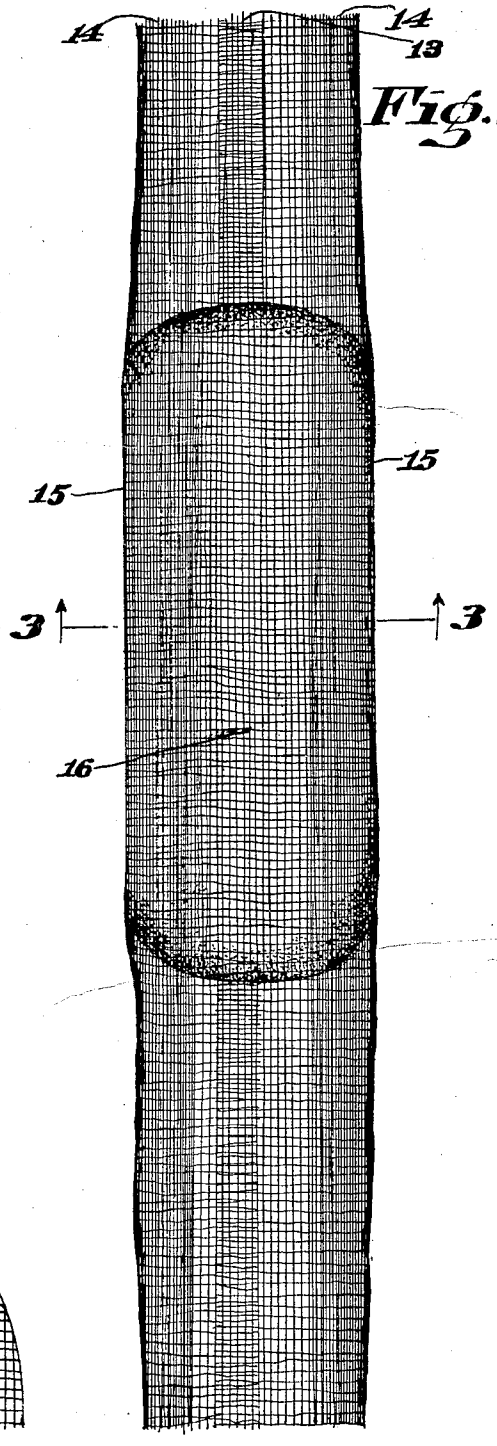
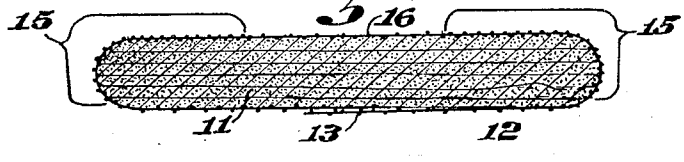


Fig. 3



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CATAMENIAL BANDAGE

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6 Claims. (Cl. 128—290)

The present invention relates to catamenial bandages, and has for its object the provision of an improved bandage of this nature. My bandage possesses decided advantages, especially in comfort to the wearer, over articles heretofore available.

Catamenial bandages are composed of an absorbent filler or pad which is covered with gauze or other like material to retain the absorbent pad and provide a means of fastening the bandage. The requisite absorbent properties are readily obtained, but the feature which has presented the greatest problem is that of comfort to the wearer. All such bandages are necessarily uncomfortable, due to a number of causes. The greatest source of discomfort is chafing between the thighs, which depends to a large extent upon the nature of the covering material. Gauze, for example, which has many advantages as a covering material, is extremely rough and chafing. For this reason gauze or fabric intended for use as a covering for catamenial bandages is generally treated with various oils and soaps, or with paraffin, for the purpose of softening the material. This treatment, however, has resulted in little if any improvement.

I have found the chafing action of the covering of catamenial bandages to be a mechanical problem. In the case of a material, such as gauze, for example, this chafing is aggravated by the sleazy and open construction of the material. This construction permits the flesh to sink between the cross threads and scrape over each thread individually, this phenomenon being greatly aggravated by the tight fitting of the pad to the body. In addition, since the filling or weft threads in gauze have considerable freedom to move back and forth at right angles to their own axes, this friction results not only in fraying but in the grouping together of adjacent threads to form cables irregularly spaced and at a comparatively great distance apart. Fibres from the absorbent filling gather around these cables, binding the individual threads together, and the result is a still more open, coarse and chafing material than the original gauze.

I have to a large extent obviated these difficulties and have provided a bandage having marked advantages in comfort to the wearer and in other respects far superior to any bandage covered with gauze or fabric which has heretofore been available. This I have accomplished by providing a bandage which presents in the normal areas of greatest frictional contact, namely, along edges and sides of the upper surface thereof, contact areas of closely associated threads.

I have discovered that excellent results in comfort can be obtained by using a gauze of fine thread count in one dimension only and low count in the other dimension. Moreover, my studies show that frictional contact is practically limited to those small sections of the bandage which normally come into contact with the thighs of the wearer. I, therefore, effect a further increase in economy and efficiency by concentrating my area of fine count threads so as to cover as nearly as possible only the areas of friction.

For a better understanding of my invention reference may be had to the accompanying drawing illustrating an embodiment of my invention, in which:—

Fig. 1 is a plan view of one surface of my bandage;

Fig. 2 is a plan view of the opposite surface; and

Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 2.

My preferred bandage comprises a pad or filler 11, which may consist of absorbent cotton, thin creped paper sheets, shredded wood pulp or other suitable highly absorbent material, and a gauze or fabric covering 12 folded transversely about this pad and extending beyond the ends thereof to provide means for fastening the bandage in contact with the body of the wearer. The pad 11 is preferably of an elongated form as shown. When folded about the pad edges of the covering 12 overlap on one side thereof as shown at 13. The woven threads making up this covering are relatively more closely spaced in the areas 14, as by concentrating a greater number of warp threads at these points. Thus when the gauze 12 is folded about the pad 11 the bands of closely associated threads 14 present contact areas 15 of closely associated woven threads along the edges and the sides of one surface of the bandage, and an area 16 of loosely woven gauze is provided in the central part thereof and between the said areas of closely associated threads.

As an example, the threads in the area 16 may count 12 x 10 to the inch, the areas 14 may count 48 x 10 and the bands or areas 14 may be 1½ inches wide and spaced 1¼ inches apart.

The bands 14 are preferably but not necessarily placed so that the friction in wear is parallel to the direction of the greater number of threads.

The areas of closely associated threads are so positioned as to overlie the normal areas of

greatest frictional contact in use, which are on that surface of the pad which is uppermost and in contact with the body of the wearer when the pad is in use. Generally this will be the surface (shown in Fig. 2) which is opposite to that on which the overlapping 13 occurs. The surface on which the overlapping occurs (shown in Fig. 1) may, however, be uppermost in use, in which case the bands 14 of closely associated threads will be positioned in the piece 12 so as to overlie the sides of this surface of the pad 11. In the appended claims the term "upper surface" is intended to refer to that surface of the bandage or pad which is uppermost, or in contact with the body, when the bandage is in use.

Instead of increasing the count of the threads forming the bands 15, these contact areas of closely associated threads may be formed by increasing the size of the thread instead of the number thereof, or both, and the claims are to be so understood.

It will thus be seen that the bands or areas 14 of closely associated threads are in the finished bandage positioned at the points of contact with the body where chafing principally occurs. The bands 14 present a surface sufficiently dense so that the flesh does not penetrate between the threads. In my preferred form, the filling or weft threads are so protected by the additional warp threads that they are scarcely felt and the grip of the additional warps together with the resulting protection of the weft threads from contact with the body prevents fraying and the formation of the threads into cables as above described. Further, the densely woven areas provide a material in which a pin will hold more firmly.

I would mentioned also that in the preferred form as shown my invention accomplishes an increase in the number of threads in the direction of the axis of the pad at the expense of threads in the opposite direction. Hence my preferred structure is stronger in the direction of strain in wearing. Also I prefer to leave a band of more loosely associated threads in the center section to permit more ready contact of the fluids with the absorbent material. In recapitulation, by my invention there is secured a novel and improved bandage which is superior in comfort, strength and absorbency.

Having thus described my invention I claim:—

1. As a new article of manufacture, a catamenial bandage comprising in combination a pad of absorbent material and thereabout a fabric covering, said covering presenting at edges and at sides of the upper surface of the bandage areas of closely associated threads and the bottom surface of said bandage presenting a permeable area of widely spaced threads between the said areas of closely associated threads.

2. As a new article of manufacture, a catamenial bandage comprising in combination a pad of absorbent material and a woven fabric covering folded thereabout and overlapping on one side of said pad, said covering mainly presenting areas of loosely woven and widely spaced threads but also presenting at sides of the upper surface thereof contact areas of closely associated woven threads in the normal areas of greatest frictional contact.

3. As a new article of manufacture, a catamenial bandage comprising in combination a pad of absorbent material and a fabric covering folded thereabout, edges of said covering overlapping on one side of the pad, said covering mainly presenting areas of loosely associated and widely spaced threads but also presenting at edges of the bandage and intermediate the ends thereof permeable contact areas of closely associated threads in the normal areas of greatest frictional contact.

4. As a new article of manufacture, a catamenial bandage comprising an elongated pad of absorbent material having thereabout and extending well beyond the ends thereof a fabric covering presenting areas of closely associated threads adjacent the longer edges of the absorbent pad and the upper side thereof, and also presenting areas of widely spaced threads located on both sides of the bandage intermediate the said areas of closely associated threads.

5. As a new article of manufacture, a catamenial bandage comprising a pad of absorbent material having folded thereabout and overlapping on one side thereof a fabric covering, said covering presenting along edges of the bandage permeable contact areas of relatively closely spaced woven threads and in the upper and lower sprfaces of the bandage areas of relatively widely spaced threads.

6. A catamenial bandage comprising a pad of absorbent material having folded transversely thereabout and extending beyond the ends thereof gauze covering providing permeable bands of closely associated warp threads adjacent edges and the sides of a surface of the absorbent pad and a band of loosely woven gauze between the said bands of closely associated warp threads in the central longitudinal area of the said surface of the absorbent pad.

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