

Oct. 11, 1955

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2,720,097

SURGICAL STOCKING

Filed Aug. 11, 1952

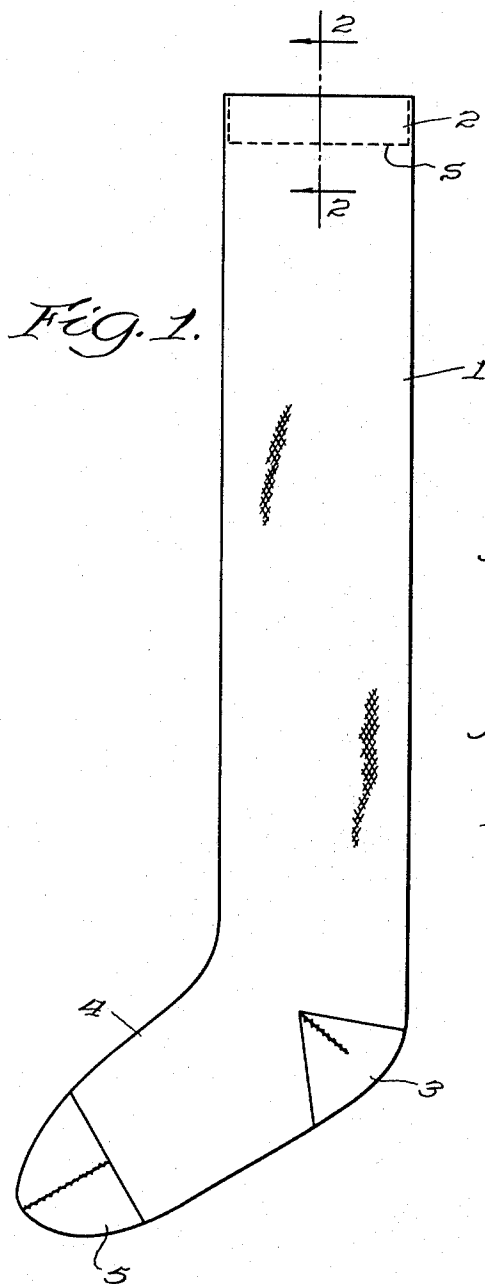


Fig. 2.

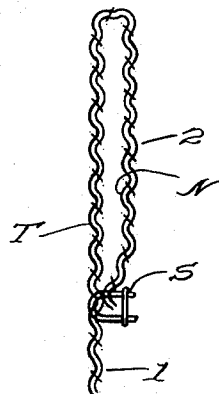
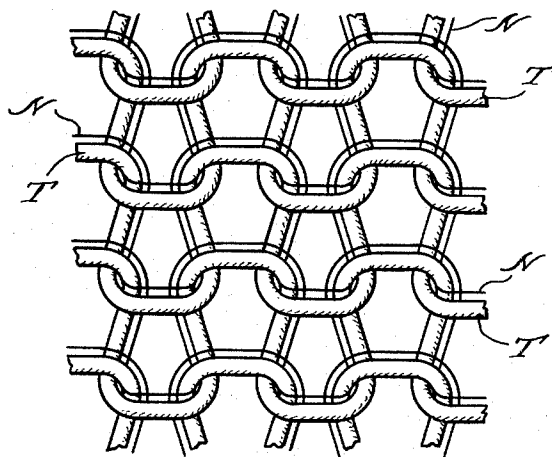


Fig. 3.



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SURGICAL STOCKING

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Application August 11, 1952, Serial No. 303,774

6 Claims. (Cl. 66—182)

This invention relates to hosiery and more particularly to an improved form of so-called "surgical" stocking having both a high degree of elasticity and of constrictive or binding force on the leg of the wearer.

The principal object of the invention is to provide a surgical stocking knitted wholly of fabric covered rubber thread together with integrated knitted reinforcement of other thread at points most subjected to wear and stress.

Another object of the invention is to provide a surgical stocking formed of thread having a fineness and closeness of knitting that will closely resemble a conventional nylon or silk stocking when worn.

A further object of the invention is to provide a surgical stocking formed principally of fabric covered rubber thread which thread is characterized by a covering so closely wrapped about the rubber strand that the covering of one portion of the thread will never engage the rubber of another portion thereof at points of interengagement of knitted loops with resultant cutting of one thread by another.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention resides in the provision of a surgical stocking knitted throughout its length of fabric covered rubber thread described, by way of example in the following specification; reference being had to the accompanying drawings which form a part of said specification and in which drawings:

Fig. 1 is a side elevation of a stocking embodying the invention,

Fig. 2 is a fragmentary, greatly enlarged, sectional view taken on the line 2—2 of Fig. 1; the structure being shown diagrammatically, and

Fig. 3 is a fragmentary, greatly enlarged plan view of the inner surface of the reinforced portions of the stocking showing the character of the knitted reinforcement.

Referring to the drawings, there is illustrated a circular knit stocking comprising a leg portion 1 having a welt portion 2 at the upper end thereof, a heel portion 3, a foot portion 4, and a toe portion 5. The entire stocking is formed from elastic thread comprising a fine rubber strand closely covered with nylon thread and subjected to heat after application to the rubber strand to set the nylon thread about the rubber strand. Preferably, the nylon thread is a plural filament strand which itself has been twisted and set before application to the rubber strand. Also, the rubber strand may be covered by two layers of nylon thread wound in opposite directions so that the helices of the layers extend in intersecting directions for the most complete protection of the enclosed rubber strand from being cut at points of interengagement of the knitted loops.

The knitting proceeds in the usual manner with the elastic thread being placed under a slight tension. As the heel toe and welt portions are reached, the knitting machine introduces a monofilament nylon thread N which is knitted at the same time and by the same needles as engage the elastic thread T (see Fig. 3) producing an

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effect known in the knitting art as "plating." The stocking is knitted inside out and when turned right side out the major portions of the added plating thread are exposed for body contact on the inside of the stocking at the toe and heel. The upper end of the stocking is turned back on itself for half of the width of the reinforced portion and the edge is secured to the leg portion at the juncture of the reinforced portion in any of the usual manners of thus forming a welt; here shown in the form of stitching S but the juncture may be effected by looping or by knitting. After completion of the foregoing operations, the stocking may be dyed and otherwise finished in the manner well known in the manufacture of nylon hosiery.

Due to the fineness of the elastic thread employed, the finished stocking when worn has the appearance of a conventional nylon stocking while the elastic thread from which it is made gives it the constrictive strength necessary for the support required for the so-called surgical stocking. The fineness of the rubber strand and the seeming weakness thereof by reason of its fineness is offset by the closeness of the knitting and the consequent increase in the number of threads. The resulting stocking therefore has the same supporting strength as prior art stockings heretofore made with fewer and heavier rubber strands. The covering of the fine rubber strands by nylon thread which is set after being wound on the rubber strand effectively prevents the covering of one portion of the elastic thread from coming into contact with the rubber strand of another portion thereof at the points of interengagement of the loops with resultant cutting of the rubber strand. Thus the wearing effect is the same as though the entire stocking were made from nylon. The "rubber" above referred to may be natural rubber or any synthetic material having the desired capacity for stretch and freedom from taking a set when pulled beyond its elastic limit, and while nylon has been referred to specifically as the covering for the rubber strand component of the elastic thread, any other synthetic filamentary material having the required flexibility, strength and other qualities comparable to nylon may be used. Additionally, the elastic thread after the covering operation may be twisted to give the rubber strand added elasticity in that the twisting will tend to shorten the strand and thus increase the extent to which it can be stretched without rupture. The heat setting of the nylon covering about the strand will prevent the untwisting to a considerable extent and the fact that the finished thread is stored on a spool or cone will prevent untwisting to any deleterious extent.

While in the foregoing specification I have described and illustrated one mode of execution of my invention by way of example, the invention is not to be deemed to be limited to the exact form disclosed, and it will be understood that it includes all such modifications as shall come within the purview of the appended claims.

I claim:

1. As a new article of manufacture, an elastic stocking circular knitted throughout its length from an elastic thread comprising a single rubber strand and a plural filament thermoplastic wrapping non-adheringly set by the application of heat to completely enclose the rubber strand.

2. As a new article of manufacture, an elastic stocking as claimed in claim 1 having the toe portion thereof reinforced by a separate nylon thread knitted with the elastic thread and having the limbs of the loops of said nylon thread disposed at the inner face of the stocking.

3. As a new article of manufacture, an elastic stocking as claimed in claim 1 having the heel portion thereof reinforced by a separate nylon thread knitted with the elastic

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thread and having the limbs of the loops of said nylon thread disposed at the inner face of the stocking.

4. As a new article of manufacture, an elastic stocking as claimed in claim 1 having the toe and heel portions thereof reinforced by a nylon thread knitted with the elastic thread forming said toe and heel portions and having the limbs of the loops of said nylon thread disposed at the inner face of the stocking. 5

5. As a new article of manufacture, an elastic stocking circular knitted from a nylon covered rubber strand and including a toe portion, a heel portion and a turned welt and having said toe, heel and welt portions reinforced by a separate nylon thread knitted with the elastic thread. 10

6. As a new article of manufacture, an elastic stocking

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as claimed in claim 5 having the limbs of the loops of said separate nylon thread disposed on the inner face of the stocking.

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