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S. I. BURD ET AL

2,208,300

STOCKING

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Fig. 1

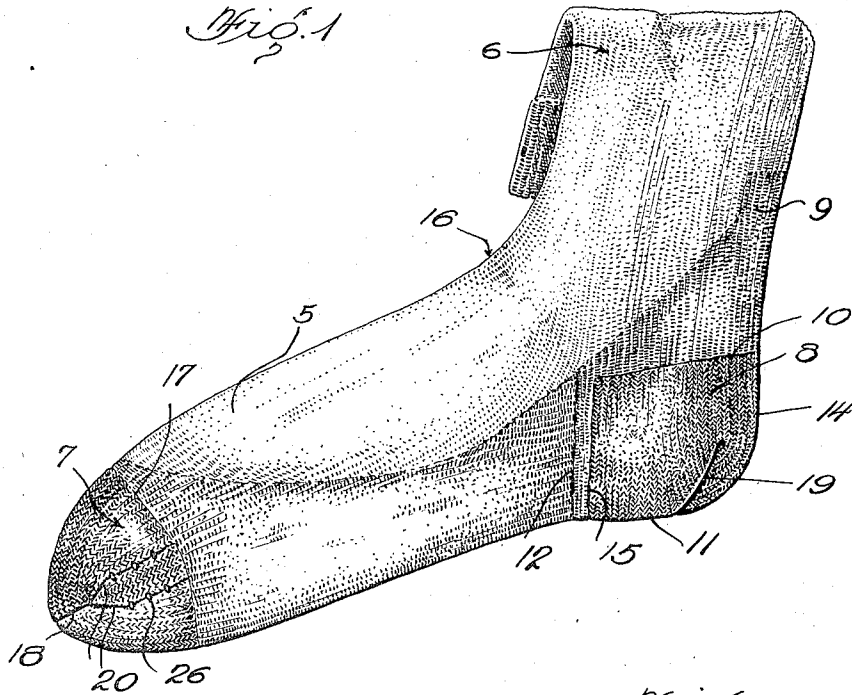


Fig. 3

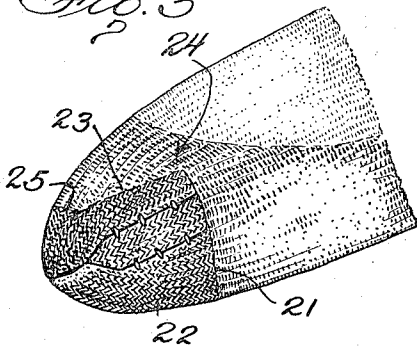
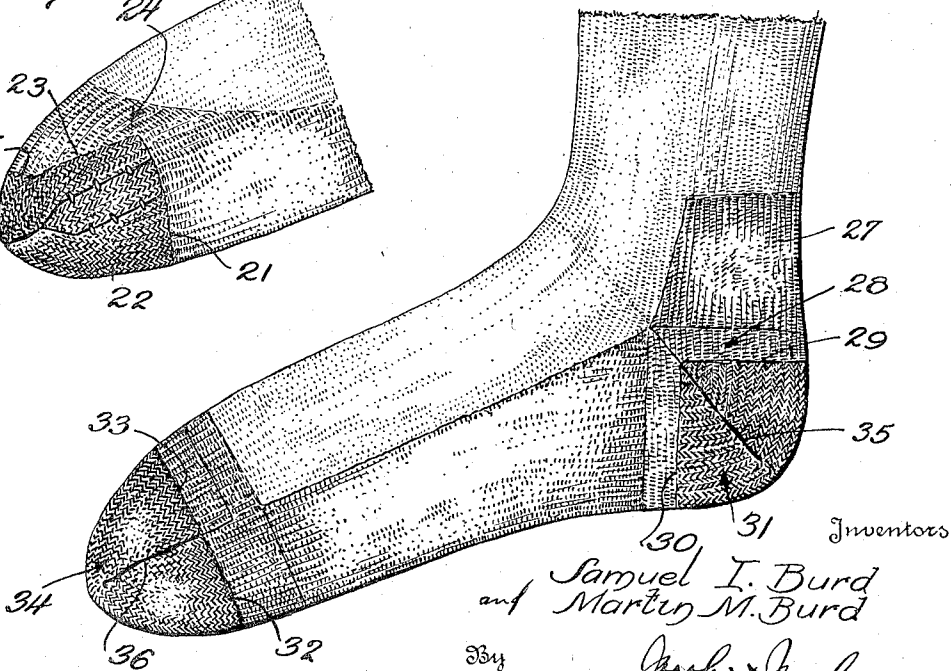


Fig. 2



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UNITED STATES PATENT OFFICE

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STOCKING

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2 Claims. (Cl. 66—185)

This invention pertains to knitted hosiery, and is directed to the reinforcement of portions of the hosiery with elastic yarn.

In the normal wear of stockings, certain portions are subjected to greater wear, the areas of greatest wear being in the toe and heel. Deterioration due to wear in the areas of the toe and heel results from the fabric rubbing against the shoes of the wearer. There is an additional factor in that the fabric is subjected to its greatest strain at these points which renders them more susceptible to wear.

The object of the present invention is to reinforce the stocking against wear by providing elastic areas, which relieve the strain on the fabric, as well as resist the abrasive action incident to rubbing.

The invention is susceptible of a number of modifications, certain of these being shown in 20 the accompanying drawing, in which

Figure 1 shows the invention as applied to a full fashioned stocking;

Figure 2 shows the invention as applied to a seamless stocking; and

25 Figure 3 shows a modification of the invention.

In Figure 1 is shown a portion of a conventional full fashioned stocking embodying the invention, and comprising the foot portion 5 as a continuation of the leg portion 6. The foot portion 5 includes the toe 7 and the heel 8.

30 The leg is knitted in the usual manner, on the legger, to include the heel 8, knitted in the form of tabs. It is conventional practice to knit reinforced fabric to form the heel 8, which reinforcement consists of heavier yarn, and the reinforcement is knitted above the heel fabric to form the high splice 9.

In the preferred practice of the present invention knitting with the conventional reinforcing 40 yarn is discontinued at a predetermined course, which may be in the high splice, at the beginning of the heel or, as in the embodiment shown, after knitting of the heel tab has continued for a number of courses, as at 10. From this predetermined course 10 on to the terminal course 11 an elastic yarn, such as a rubberized or rubber containing yarn, is substituted for the usual reinforcing yarn. The elastic yarn may be knitted in alone, or may be knitted in with a yarn of textile fiber, within the scope of the invention, either 50 practice affording an added degree of elasticity to the heel 8 in all directions of stretch. The elastic yarn may be knitted throughout the width of the tab, for example, to the topping line 12, 55 or it may be knitted throughout only a portion

of the width of the tab, for example, to a wale spaced away from the topping wale. In the practice of the invention shown the elastic yarn extends between the rear edge of the heel tab at 14 to the wale indicated at 15.

The area of fabric bounded by the courses 10 and 11, and the wales 14 and 15, permits the heel to be stretched in all directions and enables the stocking to yield across the instep indicated by 16, and between the instep and the tip of the heel. In addition, the elastic yarn is of a quality to resist wear by rubbing against the shoe.

The preferred practice of the invention also includes a toe 7 which is elastic. At a predetermined course after the toe is reached, as for example at 17, the usual toe reinforcing yarn is preferably discontinued, and elastic yarn is substituted therefor. The elastic yarn used in the toe 7 may be of the same type and quality as that used in the heel 8. The knitting of the elastic 20 continues, preferably to the terminal or looping course 18, across the tip of the toe.

It will be noted that the elastic area extends around the back, and around the bottom of the heel to a predetermined wale or course in any respective direction, likewise the elastic area extends all around the toe and around the front of the toe from the top to the bottom of the foot, to a predetermined course at 17. It extends to and through the heel narrowing line 19 which 30 fashions the heel, and the toe narrowing lines 20 which fashion the toe.

In a modified form of the invention the elastic yarn is not knitted all around the toe, and can be omitted in part of the area of the toe, for example, across the top or bottom. One form of this modification is shown in Figure 3, in which, beginning with the course 21, the elastic yarn is knitted in portions only of successive courses, for example, from the bottom of the foot at 22 to the wale indicated at 23. The rest of these courses are knitted of the usual toe reinforcing yarn to produce the cap at 24. A similar result is obtained by knitting a textile yarn throughout each course in this area, and knitting elastic yarn in 40 with the textile yarn between the wales 22 and 23. At a predetermined course, for example, as at 25, the yarn used for knitting the area 24 can be discontinued, and elastic yarn knitted throughout the width of the fabric.

It will be readily appreciated that the elastic yarn in the toe portion of the stocking will afford traverse yield and longitudinal yield, the latter contributing to the elimination of fabric strain lengthwise of the foot 5, from the toe 7 to the heel 55

8. The embodiment of Figure 3 will afford greater elasticity along the bottom of the foot.

The fabric of the present invention may include ventilation holes 26, which may be produced by any of several, so-called, lace work or picot stitching, and these holes 26 may be positioned anywhere in the toe or where desired, as for example, along the fashioning lines 20 as indicated in Figure 1.

10 In Figure 2 the invention is shown as applied to the, so-called, seamless or round-and-round knit stocking. At a predetermined course in the high splice 27 or in the heel 28 knitting is begun with elastic yarn. For example, and as shown, after a predetermined number of courses of heel 15 narrowing have been knitted, as indicated at 29, the heel reinforcing yarn may be thrown out and elastic yarn substituted. Knitting with the elastic yarn is then continued during the rest of the narrowing, and during widening to the course indicated at 30, for example, which meets the 20 narrowing course 29 as shown. This produces the elastic area indicated at 31.

In a similar manner, narrowing of the toe can 25 continue to the course indicated at 32 with the usual reinforcing yarn, and continued throughout the continued narrowing, and during widening until the course at 33 is reached, which meets course 32. This produces an elastic toe pocket 30 at 34.

The elastic pockets 31 and 34 in the heel and toe, respectively, extend to and through the re-

spective fashioning lines 35 and 36 in the heel and toe.

The elastic heel pocket 31 and the elastic toe pocket 34, perform functions in seamless hosiery the same as or similar to the elastic areas in the heel and toe 3 and 7, respectively, of the full fashioned stocking shown in Figure 1, and a like manner.

The disclosure of the specification and drawings presents some embodiments of the practice of the invention. Others will suggest themselves to those skilled in the art and we, therefore, do not undertake to limit ourselves to the structures disclosed, but the scope of our invention is determined by the accompanying claims. 15

We claim:

1. A stocking knitted mainly of inelastic textile yarn, and comprising a fashioned area subjected to strain and including fashioning lines, an elastic area comprising elastic yarn knitted in successive courses into fabric, the elastic area extending to and through the fashioning lines.

2. A stocking knitted mainly of inelastic textile yarn, and comprising a fashioned area subjected to strain and including fashioning lines, an elastic area comprising elastic yarn knitted into fabric, the elastic area extending to and through the fashioning lines, and ventilating means provided in the elastic area comprising openwork knitting.

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