April 20, 1954 J. C. DOUGHTY 2,675,631

FOOTWEAR OF THE SLIPPER-SOCK TYPE

Filed Feb. 13, 1951 2 Sheets-Sheet 1

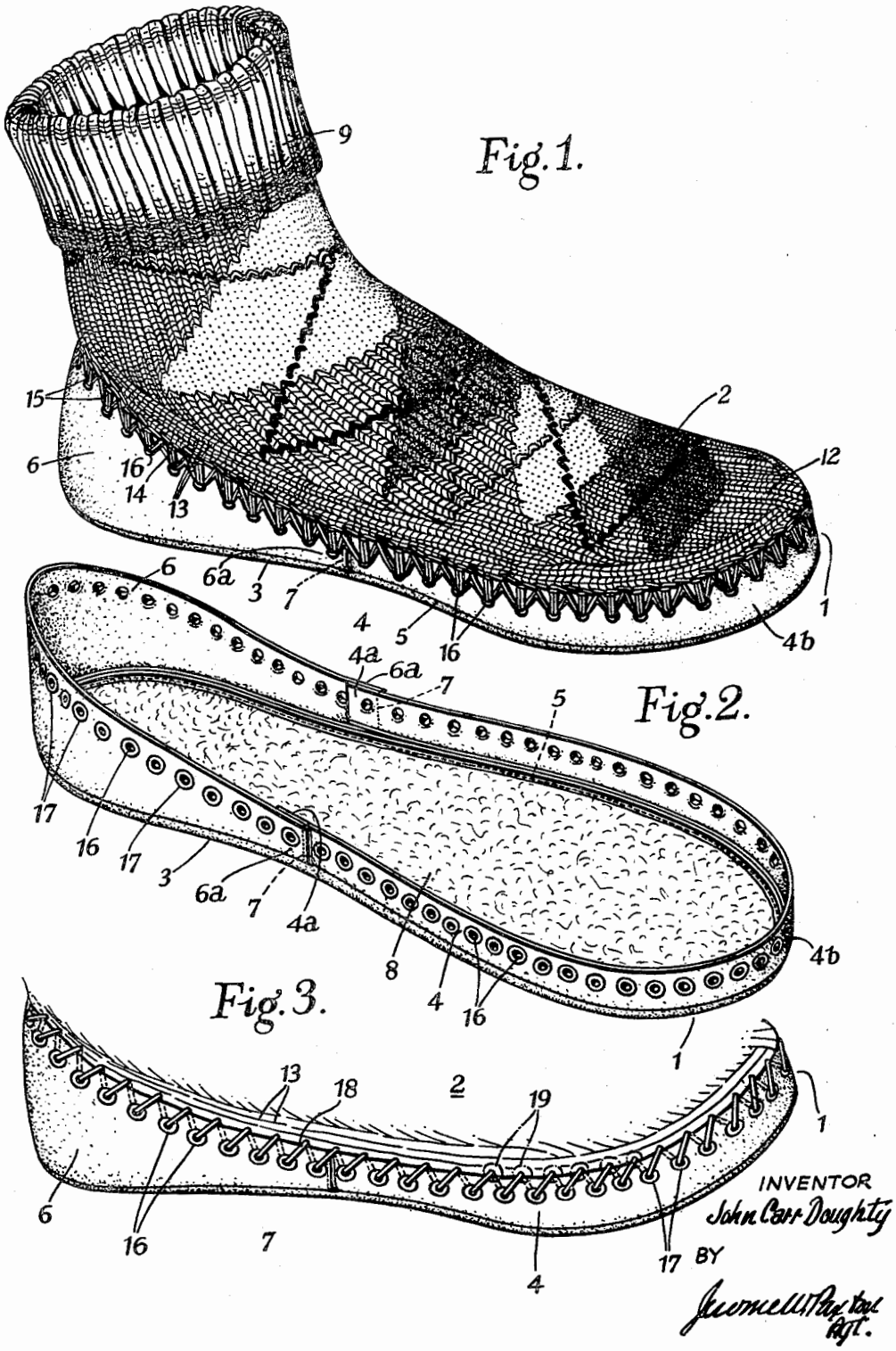

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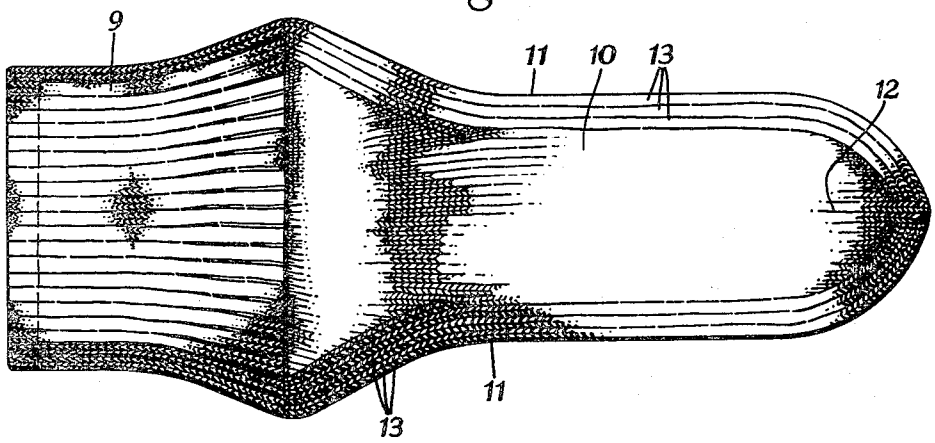
Fig. 4.



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Patented Apr. 20, 1954 2,675,631

UNITED STATES PATENT OFFICE

2,675,631

FOOTWEAR ARTICLE OF THE SLIPPER-SOCK TYPE

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Application February 13, 1951, Serial No. 210,701

2 Claims. (Cl. 36—9)

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This invention relates to articles for wear, and has reference particularly to such articles of the kind wherein a portion thereof consists of knitted fabric and is joined to a separately made portion of the article.

According to this invention there is provided an article for wear of the kind referred to, characterized in that the separately made portion of the article is joined to the knitted portion in such a way as to be readily detachable therefrom.

An important aspect of the invention is that the knitted portion is so made as to be adapted to preclude the possibility of damage to the edges thereof as and when, and after, the separately made portion is detached from the article, after wear. Thus, the idea is to provide on the knitted portion permanently sound and un-ruptured edges which will permit of the join between the said knitted portion and the separately produced portion being neatly and expeditiously re-made, as occasion demands.

It is principally the intention to apply the invention to articles of footwear such, for example, as leather-soled hose and so-called slipper-socks. In this connection, then, a feature of the invention consists of an article of footwear comprising a separately made foot bottom or sole section which is joined to a knitted instep portion in such a way as to be readily detachable therefrom.

The entire foot of an article of footwear may, however, be separately made and detachably joined to a knitted ankle or leg portion.

An advantage arising from the invention is that the knitted instep portion can, where appropriate, be readily detached from the foot bottom or sole section for washing, and thereafter as readily and neatly reattached either to the same, or to a fresh foot bottom or sole section. This applies more particularly to cases where the foot bottom or sole section is made of a material which cannot be washed like knitted fabric or might deteriorate or become otherwise spoiled by wetting. Or, in a case where the knitted instep portion is an expensively produced component as compared with the foot bottom or sole section, the latter can, when worn out, be easily detached and replaced by a new section. Such may be done, for instance, where the knitted instep portion is elaborately patterned or ornamented to a customer's individual requirements or taste. In this way the effective life of the instep portion can be appreciably extended. Similar remarks apply to the case where, as may be, the foot bottom or sole section is an expensively produced component as compared with the knitted instep portion in which

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instance the latter, when worn out, can be detached and replaced by a new one, thereby prolonging the useful life of the foot bottom or sole section. In short, the idea is to permit of ready separation of the joined parts of the foot where it is desired to wash, clean or replace one part without the other. The knitted instep portion may even be detachably joined to a medicated sole or pad, in which eventuality the sole or pad can be readily detached, recharged with medicative substances and subsequently re-attached —without the knitted instep portion being impregnated with or otherwise fouled by such substances.

Specific examples of the invention will now be described with reference to the accompanying drawings, wherein,

Figure 1 is a general perspective view of a leather-soled sock made in accordance with the invention,

Figure 2 is a perspective view of the foot bottom or sole section of the said article per se,

Figure 3 illustrates alternative means for joining together the knitted instep portion and the foot bottom or sole section, and

Figure 4 illustrates a fashioned knitted blank comprising an instep portion, an ankle section and a toe tab, the blank being shown as it appears when laid out flat.

Like parts are designated by similar reference characters throughout the drawings.

Referring to Figure 1 it will be seen that the leather-soled sock therein depicted comprises a separately made foot bottom or sole section 1 which is joined to a knitted instep portion 2 in such a way as to be readily detachable therefrom. The foot bottom or sole section 1 is made up of a relatively thin leather sole 3, a comparatively narrow strip 4 of leather which is seamed at 5 around the periphery of the forepart and waist portions of the said sole, and an appropriately shaped heel portion 6 of leather which is similarly secured by the same seam 5 to the periphery of the remaining heel seat portion of the sole 3. The rear ends 4a of the strip 4 and the front ends 6a of the heel portion 6 are overlapped as shown more clearly in Figure 2 and are secured together by short vertical rows 7 of stitching. The strip 4 extends upwards from the sole 3 proper in the form of a wall, the front rounded portion 4b thereof constituting the lower part of the toe pouch or pocket of the completed article. The heel portion 6 entirely forms the sides of the heel pocket. If desired, a piece of felt or equivalent material cut to the same shape as the sole 3 and

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adapted to present a soft surface providing comfort to the wearer may be stuck to the top surface of the sole as indicated at 8 in Figure 2. The complete foot bottom or sole section 1 fabricated as described is, therefore, in the nature of a cavity sole within which the wearer's foot snugly fits.

In this particular example, the knitted instep portion 2 constitutes a part of a fashioned knitted blank of the form shown in Figure 4. As will be seen, the instep portion 2 is knitted in one piece with a ribbed ankle section 9, and, from the lower end of this section, the blank is first narrowed, then merges into a section 10 having parallel side edges 11 and finally terminates in a substantially semi-circular toe tab 12.

As previously mentioned, an important and, it is believed, novel aspect of the invention resides in so making the knitted instep portion of the footwear as to prevent damage to the edges thereof during and after detachment therefrom of the foot bottom or sole section. For this purpose the knitted fabric of the said instep portion may, as clearly shown in Figure 4 be entirely selvedged around its periphery by suitably fashioning the wales of the knitted fabric suchwise as to secure the fabric against edge-rupture or laddering and at the same time present a neat and strong edge on the instep portion to and from which can be attached, and thereafter safely detached and subsequently neatly re-attached, the foot bottom or sole section. With regard to the fashioning of the wales a few of the marginal wales such as 13 adjoining the peripheral edges of the instep portion 2 may advantageously extend, as illustrated in Figure 1, parallel to the said edges and hence also to the adjoining edges of the complementary foot bottom or sole section 1. In fact, in Figure 4 the marginal wales 13 are shown extending parallel to and right around the perimeter of the shaped instep portion 2 and the integral toe tab 12. The marginal wales thus correspond to the edge contour of the instep portion, thereby resulting in an attractive wale contour having the advantage of imparting to the complete article a novel and appealing finish. An additional advantage of such a wale contour is that in an article such as that shown in Figure 1, the change in material from, say, knitted wool to the leather is made to appear less abrupt. The invention therefore includes, as a feature, a component in the form of a fashioned knitted blank constituting or including an instep portion (of an article of footwear) having rupture or ladder-proof selvedges.

The aforementioned change from knitted fabric to another material can in actual fact be made less abrupt (apart from merely appearing so) by thickening the selvedged edges of the instep portion, e. g. by the incorporation in one or more of the marginal wales of a splicing thread. In this case, the thickness of the completed article from the foot bottom or sole section to the instep portion is reduced in stages, viz. first from the comparatively thick material of the foot bottom or sole section to the spliced and thickened selvedge of the instep portion and then from this selvedge to the relatively thinner main area of the instep portion. It is convenient to mention here that, merely for the purpose of illustration, the instep portion 2 shown in Figure 1 is patterned, whereas the instep portion of Figure 4 is depicted as being plain as, of course, it may be.

It is preferred to attach together the separable parts of the improved article of footwear by any conventional method of stitching, sewing, or seaming. In this connection it is possible to employ for the stitching, sewing or seaming operation either an ordinary yarn or thread or a special thread soluble in water or a chemical solvent. In the example illustrated in Figure 1, the foot bottom or sole section 1 is joined both to the knitted instep portion 2 and the integral toe tab 12 by a woollen yarn 14 which is inserted by, say, a bodkin or a needle, in the form of fancy blanket or like stitches such as 15. To assist the insertion of the joining yarn 14, the foot bottom or sole section may be formed therearound with a series of uniformly spaced plain holes 16 (Figure 1). Alternatively, these holes 16 may be eyeletted as shown at 17 in Figure 2.

Figure 3 shows a further method of joining together the separable parts, that is by means of a lacing thong or thread 18 which is laced through the holes 16 and, if desired, also holes such as 19 formed in the knitted instep portion and toe tab.

The invention, however, is by no means limited in these respects as the separable parts of the article may be attached together by any other suitable means. For instance, sliding-clasp fasteners or press-stud, hook and eye or like fastenings comprising complementarily engageable elements provided on the respective parts may be employed for this purpose.

Instead of the knitted fabric of the instep portion being selvedged around its periphery by suitably fashioning the wales of the fabric as hereinbefore described, the edges of the said fabric may alternatively, and for the same purpose, be sealed, e. g. either by an edging seam or by bonding, binding or massing together the fibres or threads at the edges by heat treatment or the application thereto of any suitable chemical, adhesive, plastic or the like.

It is, of course, also within the broad scope of the invention to make the instep portion of a locked-stitch or ladderproof knitted fabric which can be cut to shape without the risk of subsequent fabric rupture.

Again, the foot bottom or sole section may be made of felt, woven fabric, moulded material, such as rubber or plastic, or any appropriate combinations of such materials. Or even a sole made from rope or string may be detachably joined to a knitted instep portion.

The instep portion, instead of being combined with ankle section as hereinbefore described may, if desired, be combined with a leg. The ankle section or the leg may be knitted either in one piece with, or separably from, the instep portion. Accordingly, the invention is generally applicable to knitted footwear of all types, e. g. hose, golf hose, three-quarter hose, half-hose and socks. It is, however, also applicable to any appropriate class of footwear having a foot of a composite character comprising separately made instep and foot bottom or sole portions. To quote a further example the invention would include within its scope such an article of footwear specially designed for wear within a sea boot, wellington or similar boot, or in conjunction with any boot, shoe or footwear when for reasons of special wear or comfort or other attribute, a separately made and detachable sole is desired to be allied to a knitted instep.

For the sake of convenience, the foregoing description has been principally confined to articles of footwear, although it is to be clearly understood that there is no limitation of the invention in this respect, as it may also be applied to any other appropriate articles for wear. Thus, for

instance, also included within the scope of the invention is a glove or mitten of which, say, the hand portion is made separately from, and detachably joined to, a knitted wrist portion. Or a separately made palm portion of a glove or mitten may be detachably joined to a complementary knitted portion covering the back of the hand.

What I claim then is:

1. In a footwear article of the slipper-sock type, a fashioned peripherally selvedged knitted member, said member including a shaped instep portion, a ribbed ankle section knitted in one piece with said instep portion at one end thereof, and a toe tab knitted in one piece with said instep portion at the opposite end of the instep portion, said ankle section, instep portion and toe tab terminating in a regular circumferential, lower continuous perimeter, a plurality of the marginal wales of the knitted member extending parallel to and around the perimeter of the instep portion and toe tab to prevent damage to the perimeter by strengthening the perimeter, a sole member, an upstanding wall extending around the forepart and waist of the sole member, a heel pocket on said sole member, means securing said upstanding wall and heel pocket to the sole member, further means securing the upstanding wall to the heel pocket, and additional

means detachably connecting the edge of said member to the edge of said upstanding wall and heel pocket whereby the knitted member may be detached from said upstanding wall and heel pocket.

2. A footwear article of the slipper-sock type as defined in and claimed by claim 1, further characterized in that said additional means includes a plurality of spaced apertures provided in the upstanding wall and heel pocket, and a lacing element adapted to be passed through the edge of said knitted member and spaced apertures.

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