Sept. 1, 1964 R. McDONALD 3,146,468

SOCK CONSTRUCTION

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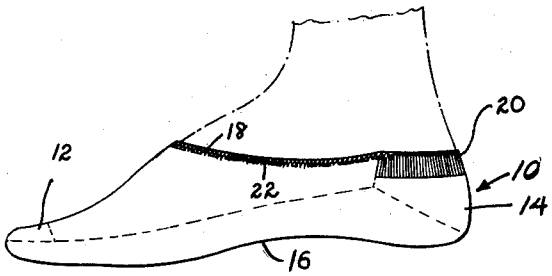


Fig-1

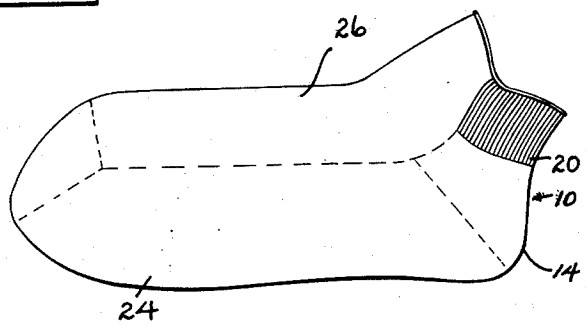


Fig-2

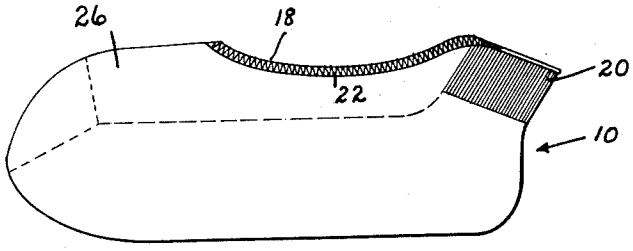


Fig-3

RAYMOND McDONALD

INVENTOR

BY Jacobi & Davidson

ATTORNEYS

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3,146,468
SOCK CONSTRUCTION

Raymond McDonald, P.O. Box 248, Avon Park, Fla.

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The present invention relates to a sock construction and method, and more particularly to the construction of an improved low quarter sock having a wide elastic heel band and an elastic strip about the foot opening.

In certain athletic activities where there is much walking involved, such as in playing the game of golf, the participants in these activities have noticed, over the years, that their socks tend to "creep" down into the shoe, bunching up in the shoe and causing discomfort and in some instances blisters. To overcome this disadvantage of the conventional anklet sock, it was at first proposed to provide the anklet sock with strong elastic portions, these being intended to grip the leg above the ankle so firmly that the sock could not "creep" downwardly into the shoe. This proposal was unsatisfactory, however, since experience showed that elastic which was strong enough to hold up the sock was so strong that it applied undesirable forces to the leg, resulting in such deleterious effects as reducing or cutting off the circulation of blood.

Thereafter, it was proposed to provide a low quarter sock which covered approximately the same areas as a normal low quarter shoe; this sock will be seen, therefore, to be one which extends to a point below the ankle of the wearer. This low quarter sock was characterized by an opening which was defined by an edge that extended from the heel portion of the sock forwardly along the sides of the sock and of the foot and thence to the area of the instep. Typically, such low quarter socks had an elastic strip extending around the sock opening. It was found, however, that the elastic strip thus provided did not serve the intended function of preventing the sock from slipping downwardly into the shoe, and so the art turned to other constructions in order to overcome the deficiency of the low quarter sock with the strip around the edge.

One such construction was a sock with an elastic strip, and also with a detent in the form of a small ball of threads, known as a pom-pom. In still another construction, the elastic was entirely omitted from the low quarter sock, and the heel of the sock was extended abnormally so that it could be folded down over the heel portion of the shoe, it being intended that this construction would prevent the sock from slipping down in the shoe.

While the low quarter sock with the pom-pom construction was generally satisfactory while being worn, some objection was interposed to the appearance of this sock, and other objection was made to the fact that the pom-poms often became dislodged from the sock. Thus, the sock with the pom-pom was not entirely satisfactory. Similarly, it has been found that the sock with the extended heel portion tended, after a period of use, to slip down into the shoe, and so it has not been entirely satisfactory either.

An object of the present invention is to provide a low quarter sock which will be securely anchored on the foot of the wearer.

Yet another object of the present invention is the provision of a low quarter sock which will be securely anchored on the foot of the wearer and which will not require any external detent-like construction.

Yet another object of the present invention is to provide a low quarter sock which is of economical construction.

Another object of the present invention is the provision of a method for manufacturing a sock in accordance with the present invention.

Other objects and many of the attendant advantages of the present invention will become apparent from the following specification and drawings, wherein:

FIG. 1 is an elevational view of a sock in accordance with the present invention on the foot of a person.

FIG. 2 is an elevational view illustrating a step in the making of the sock of the present invention.

FIG. 3 is a similar view indicating a further step in the method of making the sock in accordance with the present invention.

Referring now to the drawings, wherein like or corresponding reference numerals are used to designate like or corresponding parts throughout the several views, there is shown in FIG. 1 a sock generally designated **10**, the sock **10** being of the low quarter type in that it extends to a point below the ankle. This sock is commonly known as a "golf sock." Sock **10** has a toe portion generally designated **12**, a heel portion generally designated **14** and an intermediate portion therebetween designated **16**. The several dashed lines appearing on the figures of the drawing designate seams which are conventionally used to join different parts of the sock; their use and function are well known and understood by those skilled in the art.

Sock **10** has a peripherally extending edge **18** which defines the opening that receives the foot of a wearer. The rear portion of the edge **18** is defined by a relatively wide knitted elastic band **20** which extends downwardly from the edge **18** and which extends forwardly on either side of the sock from the rear thereof, it being understood that the sock **10** shown in FIG. 1 is symmetrical, generally speaking, on either side of a vertical plane passing through it. A narrow elastic strip **22** is secured to the sock **10** at the forward part of the edge **18**, the elastic strip **22** having one end in juxtaposition to the end of band **20**, and traversing the edge **18** to the other end of the band **20**, the band **20** and strip **22** thereby providing a continuous elastic boundary for the opening of the sock. Preferably, the ends of the strip **22** overlap and are secured to the ends of the band **20**. This construction enables the elastic band **20** and the elastic strip **22** to pull against each other, thereby giving a cantilever action which enables the sock **10** to be worn comfortably but effectively resists the normal tendency of a sock to slip downwardly into a shoe when it is worn during such athletic activities as playing golf.

Referring now to FIG. 2, there is shown the sock **10** during an intermediate step in the manufacture thereof. The sock **10** has been made by knitting, and the knitting operations have included the utilization of elastic thread in the portion of the sock near the upper part of the heel portion **14**, to thereby provide the elastic band **20**. The sock **10** at this stage of its manufacture includes a cushion sole portion **24** and a relatively thin instep portion **26** which extends rearwardly to the free edge of band **20**. Referring now to FIG. 3, it will be seen that the thin portion **26** has been cut to provide the aforementioned edge **18**. An elastic strip **22** is secured to the portion **26** of sock **10** by stitching or the like, the ends of elastic strip **22** overlapping the forward upper ends of the band **20**, and the stitching which secures the elastic band **22** to the sock portion **26** serves to secure the ends of the elastic strip **22** to the band **20** at the upper, forward ends thereof.

There has been provided an improved sock of the low quarter type which, due to the cantilever action obtained by opposed elastic portions bordering the sock opening effectively resists any tendency of the sock to slip downwardly into the shoe during use. The sock of the present invention achieves this desirable function without any appendage or extension. The sock of the present invention is made by an improved and economical process.

It will be obvious to those skilled in the art that

various changes may be made without departing from the spirit of the invention and therefore the invention is not limited to what is shown in the drawings and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. A low quarter sock comprising heel and toe portions and an intermediate portion for receiving a foot, said sock having a peripherally extending edge defining an opening for receiving a foot, said sock being relatively short in height, whereby said edge is below the ankle when worn, the upper heel portion of said sock comprising a relatively wide knitted elastic band extending downwardly from said edge, the upper margin of said band extending around the entire periphery of said heel portion defining a fractional portion of said edge, and a narrow elastic strip extending along the remaining portion of said edge, said elastic band constituting a concentration of elasticity about said heel portion, the ends of said strip overlapping the ends of said band and attached thereto whereby said band and said strip pull against one another thereby giving a cantilever action to said portion about the periphery of said edge.

2. A low quarter sock comprising heel and toe portions and an intermediate portion therebetween, said sock having a peripherally extending edge defining an opening for receiving a foot, said sock being relatively short in height whereby said edge is below the ankle when the sock is worn, the upper heel portion of said sock comprising a relatively wide knitted elastic band extending downwardly from said edge and extending forwardly on either side of said sock around the entire periphery of said heel portion, and a narrow elastic strip extending along said edge between the ends of said band whereby said band and said strip pull against one another thereby giving a cantilever action to said heel and toe portions about the periphery of said edge.

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