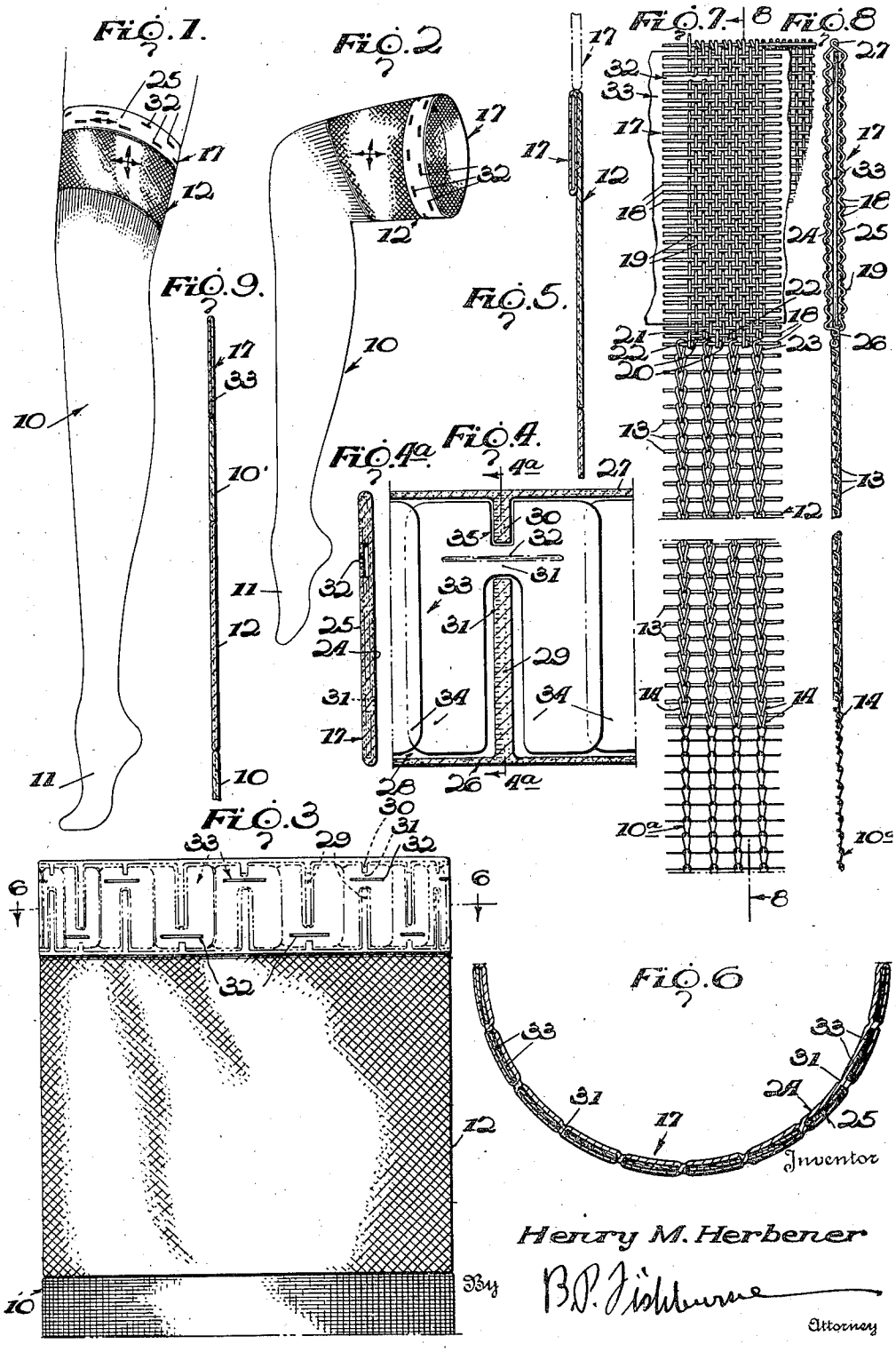
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STOCKING

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## STOCKING

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8 Claims. (Cl. 2—240)

My invention relates to apparel and has particular reference to improvements in stockings.

An important object of the invention is to provide a stocking, such as a lady's stocking, which will remain in the upper position, without the aid of the usual hose supporters attached to a girdle or the like, and which will not become baggy at the knee, due to the bending action of the leg.

A further object of the invention is to combine a two-way stretch zone or section and a one-way stretch garter, with a stocking, so that the stocking will have an attractive and neat appearance in use.

A further object of the invention is to provide a garter which is elastic and flexible circumferentially, but stiff in a direction at substantially a right angle to the circumferential direction.

A further object of the invention is to provide a garter of the above-mentioned character having pockets for receiving and holding stiffening ribs, to maintain them in place in use but will permit of the removal of the stiffening ribs when the garter is to be washed.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective view of a stocking embodying my invention, showing the same applied to the leg, but the garter not folded inwardly,

Figure 2 is a perspective view of the stocking, showing the leg bent at the knee,

Figure 3 is an enlarged side elevation of the upper end of the stocking, the lower portion of the stocking being broken away,

Figure 4 is an enlarged vertical section through the garter taken in the plane of the same, parts broken away,

Figure 4ª is a transverse section taken on line 4ª—4ª of Figure 4,

Figure 5 is a vertical transverse section through the upper portion of the stocking, showing the garter folded inwardly,

Figure 6 is a horizontal transverse section through the garter taken on line 6—6 of Figure 3,

Figure 7 is an enlarged fragmentary side elevation of the upper end of the stocking, showing the manner of producing the same,

Figure 8 is a transverse section taken on line 8—8 of Figure 7, and,

Figure 9 is a longitudinal section through a slightly modified form of stocking.

In the drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates the leg portion of the stocking, having a foot portion 11, and knit in the usual manner. It is preferred that the leg portion 10 be sufficiently long whereby its top will extend above the knee, which is desirable when worn with short dresses. The leg portion 10 is knit and includes loops 10ª.

The numeral 12 designates an annular section or zone, made of two-way stretch fabric. This fabric is preferably formed of elastic threads 13, which are knit to produce the loops 14 of fabric 12. These elastic threads may be formed of rubber threads covered with yarn or the threads may be fibrous, and the elasticity in both directions will result from the knitting of the fibrous yarn, such as silk, rayon, nylon, cotton, or a mixture of the same. All of these fibrous yarns have some degree of elasticity and the degree of elasticity is increased by having the yarn crimped. While it is preferred that the fabric of the annular section or zone 12 should be knit, it may be woven. When the fabric is woven to produce a two-way stretch, elastic or rubber threads will be used. The annular section or zone 12 having a two-way stretch, it will stretch circumferentially and longitudinally of the leg at substantially a right angle to the circumferential direction. The leg portion 10 of the stocking is knit upon and from the section or zone 12. The annular section or zone 12 is preferably normally of the same length throughout its circumference, before it is stretched by the bending of the knee.

The stocking further comprises a garter element 17, which is preferably woven, and which has a one-way stretch so that it is elastic circumferentially and non-elastic at a right angle to the circumferential direction. This garter has its fabric formed from circumferentially extending rubber threads 18, which are covered with fibrous threads and 19 are the non-elastic filling threads. Certain of the filling threads, at the bottom of the garter provide loops 20, projecting downwardly below alternate loops 21, and this affords spaces 22, above and adjacent to the lowermost elastic thread 18, for the passage of loops 23 of the knitted annular section or zone 12, and these loops receive therein the lowermost elastic thread 18. In this manner, the section or zone 12 is knit to the garter element 17.

The garter element which is preferably woven,

as stated, comprises sides 24 and 25 which are formed integral with each other at their upper and lower edges 26 and 27, whereby these edges 26 and 27 close the ends of pockets 28. These pockets are formed in the garter by pairs of transverse partition webs 29 and 30, preferably woven integral with the sides 24 and serving to unite them. A contracted opening 31 is arranged between the webs 29 and 30 in each pair. Alternate pairs of webs 29 and 30 are reversed so that the long web 29 of one pair is arranged lowermost adjacent to the lower edge 26 while the long web 29 of the next pair is arranged uppermost and adjacent to the upper edge 27, while the short web 30 in one pair is arranged uppermost adjacent to the upper edge 27 while the short web in the next pair is arranged lowermost adjacent to the lower edge 26. The normally outer side 25 of the garter is provided with circumferentially extending slots 32, which are disposed over the openings 31. The slots 32 are alternately arranged adjacent to the edges 26 and 27, as shown. The numeral 33 designates flat U-shaped stiffening ribs which may be formed of metal, Celluloid, whale bone, or the like. Each rib 33 has arms 34 which are adapted to be inserted into portions of the adjacent pockets 28, the long web 29 extending between the arms 34 and the short web entering a notch 35, formed in the opposite end of the rib. The rib is wider than the slot 32 and the garter is stretched circumferentially so that the rib may be passed through the slot and when the garter again contracts the slot has a length less than the width of the rib. The ribs 33 have their arms 34 preferably arranged in overlapping relation. The ribs 33 do not impair the circumferential elasticity nor the circumferential flexibility of the garter element but render the garter element stiff in a direction at right angles to the circumferential direction.

In the production of the stocking, the annular section or zone 12 is knitted to the lower edge of the previously woven garter element 17. To effect this the knitting needles are threaded through the spaces 24 and the loops 23 are formed about the lowermost strand 18. The knitting operation continues away from the garter element until the elastic section or zone 12 is completed, and then the knitting operation is continued with the change of thread to form the body portion 10 of the stocking. The zone 12 and body portion 10 are thus knit integral with each other.

In use, the leg portion of the stocking is applied to the wearer in the usual manner and the two-way stretch annular section or zone 12 is arranged above the knee with the garter element 17 above the zone 12. The garter element 17 is then preferably folded downwardly and inwardly, Figure 5, so that it is arranged next to the leg and between it and the upper portion of the zone 12. The downward pull of the stocking through the zone 12 will be transmitted to the then upper edge of the inverted garter element 17, and this will tend to tip this garter element outwardly, causing its lower edge to dig into the flesh, to a certain extent, and prevent the garter element from slipping downwardly upon the leg. The stiffening ribs produce this action by rendering the garter element stiff in a direction at substantially a right angle to the circumferential direction of the garter. The zone 12 being circumferentially elastic, it will fit snugly upon the leg and also aid in keeping the stocking in the raised position. When the knee is bent, as shown in Figure 2, the zone 12 will have its upper portion stretched longitudinally or at a right angle to the circumferential direction, since the zone 12 is more elastic than the leg portion, thus allowing the leg portion of the stocking adjacent to the knee, to pay out longitudinally, avoiding undue stretching and bagging of the stocking at the knee. The garter element 17 is circumferentially elastic, as stated, and is heavier than the zone 12 and much stiffer or stronger against circumferential stretching than the zone 12 and will therefore exert a greater pressure upon the leg. I contemplate omitting the stiffening ribs from the garter, in which event such garter may be used as an ordinary garter, without turning the same inwardly and downwardly. I also contemplate using the garter element separate from the zone 12.

I contemplate arranging an annular section of stocking 10', Figure 9, between the two-way stretch annular section or zone 12 and the one-way stretch garter element 17, and these parts will be secured together by knitting them together or by other means, such as sewing. When the stocking section 10' is employed it will serve to attach or secure the garter element 17 to the zone 12.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, what I claim is:

1. A stocking including a leg portion, a circumferentially elastic garter element secured to the leg portion, the garter element comprising sides which are connected at their opposite edges, transverse webs connecting the sides at spaced points to provide pockets, one side having openings arranged adjacent to the transverse webs, and U-shaped stiffening ribs for insertion into the pockets through the openings, the U-shaped stiffening ribs straddling the transverse webs, said U-shaped stiffening ribs being removable from the pockets without separating the garter element and leg portion.

2. A garter which is circumferentially elastic, said garter comprising sides, transverse pairs of webs extending between and connecting the sides, the webs in each pair having their free ends spaced to provide a passage, the sides having openings arranged adjacent to the passages, and a rib for insertion through each opening to assume a position between the sides and provided in its ends with openings to receive the webs.

3. A garter which is circumferentially elastic, said garter comprising sides, transverse pairs of webs extending between and connecting the sides, each pair of webs including a long web and a short web having their inner ends spaced to provide a passage, the short web of each pair extending inwardly from one edge of the garter while the short web in the next pair extends inwardly from the opposite edge of the garter and the long web in each pair extending inwardly from one edge and the long web in the next pair extending inwardly from the opposite edge, one side having openings arranged adjacent to the passages, the openings being spaced from the edges of the garter and staggered, and a rib for insertion through each opening to assume a po-

sition between the sides and provided at its opposite ends with openings to receive the webs.

4. A stocking including a leg portion, a two-way stretch leg encircling elastic section secured to the upper portion of the leg portion and embodying rubber threads, and a circumferentially elastic garter element secured to said elastic section, said garter element embodying rubber threads and being stronger against circumferential stretching than the elastic section, and means to render the garter element transversely stiff.

5. A stocking including a leg portion, a two-way stretch elastic section secured to the upper portion of the leg portion and extending circumferentially thereof and having more elasticity than the leg portion, and a transversly stiff and circumferentially elastic garter element secured to said elastic section, said garter element being stronger against circumferential stretching than the elastic section.

6. A stocking including a leg portion, a two-way stretch elastic section secured to the upper portion of the leg portion and having more elasticity than the leg portion, a circumferentially elastic garter element secured to said elastic section and having transverse pockets, said garter element being stronger against circumferential stretching than the elastic section, and stiffening ribs held within the pockets.

7. A stocking including a leg portion, a circumferentially elastic garter element secured to the upper end of the leg portion, stiffening ribs carried by the garter element and extending transversely thereof, and an elastic section secured to the leg portion and being more elastic than the leg portion and arranged to yield longitudinally of the leg when the knee is bent to prevent the leg portion from bagging at the knee.

8. A stocking including a leg portion, a two-way stretch leg encircling elastic section secured to the leg portion near its top and being more elastic than the leg portion, a circumferentially elastic garter element arranged near and spaced from the two-way stretch elastic section, and an annular stocking section arranged between the two-way stretch elastic section and the garter element and secured to the same, and means to render the garter element transversely stiff.

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