

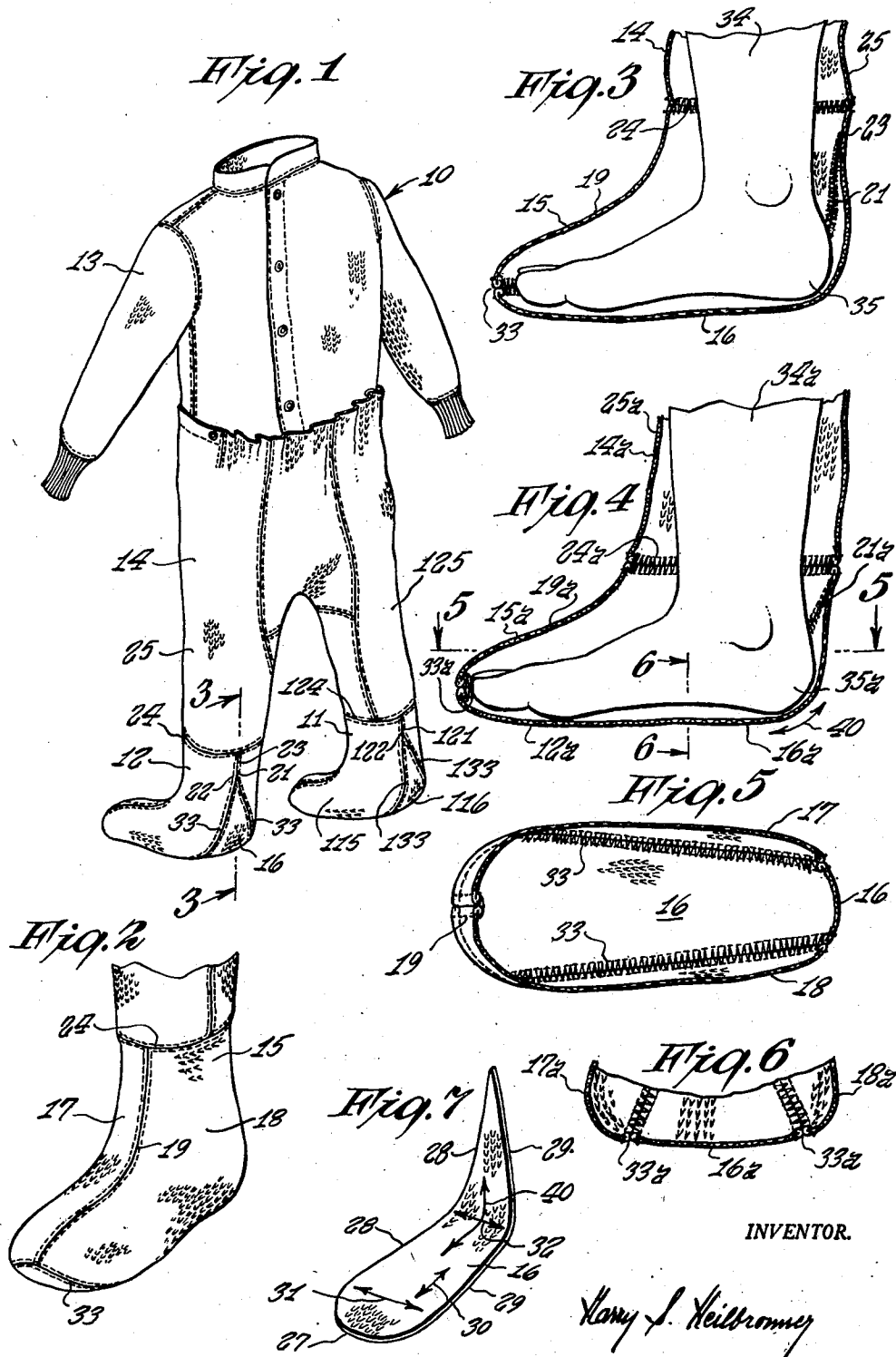
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STRETCHABLE FOOT COVERING

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## STRETCHABLE FOOT COVERING

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2 Claims. (Cl. 36-9)

1

This invention relates generally to garments and more particularly to sleeping garments.

For a number of purposes, and especially for use by growing children, sleeping garments having a closed foot type of construction have had wide use. They keep the nether extremities of the wearer properly clothed and warm.

Up to now most foot constructions on sleeping garments have been made on the general principle of a top part which is either an extension of the main body or is composed of separate pieces which are attached to the main body particularly at the nether part, and the sole part having lateral parallel edges with roundings in the front and the back. This construction has resulted in a generally transverse seam located at the heel of the wearer. In this prior art construction only a limited size range is useful and if the garment is too large or too small, discomfort results. Furthermore such transverse rear heel seam is subjected to excess wear and as a consequence premature rupture in this area is encountered. Furthermore when the foot size of the garment is not appropriate to the wearer, distortion occurs with a resultant undue strain and discomfort in portions which are spaced from the heel joint in the garment.

It is therefore among the principal objects of the present invention to provide a novel sleeping garment construction in which there is truer form fitting for a range of foot sizes.

Another object herein lies in the provision of structure of the class described wherein the combination sole and heel element is of declining width from the toe area in the direction of the heel. This is in accordance with the structure of the human foot and provides greater comfort and durability.

Another object herein lies in the provision of sleeping garment foot construction wherein the combination sole and heel element is elongated to extend upwardly beyond the heel of the wearer. This construction results in the elimination of a seam across the heel and being not limited to a specific size may adapt itself to the length of the child's foot.

These objects and features, and other incidental ends and advantages, will become more fully apparent during the course of the following disclosure, and be pointed out in the appended claims.

In the drawings similar reference characters designate corresponding parts throughout the several views.

Figure 1 is a rear view in perspective of a

2

sleeping garment showing an embodiment of the invention in a position as worn.

Figure 2 is a fragmentary front perspective view of a foot portion as seen in Figure 1.

Figure 3 is a fragmentary vertical sectional view as seen from the plane 3-3 on Figure 1.

Figure 4 is a vertical sectional view corresponding generally to Figure 3 but showing an altered position taken by the parts when the garment is worn by a wearer having a larger size foot than in Figure 3.

Figure 5 is a horizontal sectional view as seen from the plane 5-5 on Figure 4.

Figure 6 is a fragmentary vertical sectional view as seen from the plane 6-6 on Figure 5, showing another form.

Figure 7 is a view in perspective of the combination sole and heel element as removed from Figure 2.

In accordance with the invention, the garment 10 includes feet 11 and 12. The upper portion 13 of the garment as well as the nether portion 14 upwardly of the said feet 11 and 12 may be of any well known construction such as one or two piece design and will therefore not be described in detail.

Since the feet 11 and 12 are substantially identical a detailed description of one will suffice for both and certain of the parts on the foot 11 may have the same reference characters as those on the foot 12, with the addition of a prefix "1."

The foot 12 comprises broadly a top 15 and a combination sole and heel element 16. The top 15 is shown as being made up of two substantially identical top elements 17 and 18 joined centrally by the central front seam 19. Where desired however the top 15 may be cut from a single piece of material. The upper rear edges 21 and 22 of the top at the rear are joined, these parts meeting in the back of the foot about two-thirds up the back height of the foot in its normal arrangement. This juncture of the seam portion 23 avoids excess seams at the line of attachment at the seam 24 which joins the foot to the leg 25 of the garment 10. The connecting seam 124 joins the foot 11 to the leg 125.

While the garment may be made of various kinds of material, the most satisfactory mode of construction resides in the utilization of knitted fabric. Variations in stretchability can be achieved by sewing the parts with the wales of the knitted fabric in said parts in parallel or perpendicular position so that various arrangements may be obtained by cutting the top 15

3

parallel or perpendicular with the wales of the base cloth, the latter being seen in Fig. 6.

Having all types of seams available, the present construction can be made with any of these and is not limited to any particular one. There has been illustrated and found to be satisfactory a cover type of stitch. Any seam, however, lessens the adaptability of knitted cloth and will do so to a great extent as stretching of the cloth is required in the heel area.

As seen in Figure 7 the combination sole and heel element 16 includes a curved front edge 27, and inwardly, rearwardly and upwardly converging edges 28 and 29. The element 16 is cut so that the wales run longitudinally thereof as indicated by the arrow 30 to allow a degree of stretchability in this direction. This provides for a maximum of transverse stretchability in the toe area as indicated by the arrow 31 and further allows transverse stretchability as indicated by the arrow 32 so that said element 16 may conform to the heel 35 of the wearer. The element 16 is joined to the lower edges of the top element by the seam 33 in the manner shown so that the foot 34 is entirely enclosed.

In addition to the three way stretchability referred to, one component of the adaptability of the present construction to differences in the wearer's foot size is graphically illustrated in Figures 3 and 4. The corresponding parts in Figure 4 are given the suffix "a" where it will be seen that the element 16a has been moved down in the rear portion thereof relative to the forward portion so that the total length of the foot 12a is greater and still the heel 35a of the wearer rests upon a smooth cloth surface completely free of seams. Thus as indicated schematically by the arrow 40 on Figures 7 and 4 the rear portion of the element 16 may shift in position to provide proper accommodation for different foot sizes. The present novel construction therefore provides three dimensional stretchability in contradistinction to ordinary flexibility. This is advantageous for a number of reasons: not only comfort but including the longer period of usefulness to accommodate the growth of the wearer and also may result in a reduction of the number of sizes in which standard garments may be made to accommodate a series of sizes of wearers.

While I have shown the feet 11 and 12 as connected to the garment by the seams 124 and 24 the foot in the form of a bootie may be separately fabricated and provided at the upper ankle

4

area with cuffs or similar means for securing a fit around the ankle of the wearer and these articles may be of substantial utility independently of the larger garment.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described for obvious modification will occur to a person skilled in the art to which the invention pertains.

I claim:

1. A stretchable fabric foot-covering comprising: a top having bottom front and side edges, and rear edges converging upwardly from the rear ends of said side edges, a combination stretchable fabric sole and heel element having a sole portion joined to the bottom front and side edges of said top and a turned up heel portion, said portions being more stretchable transversely than longitudinally, said heel portion having side edges converging to a sharp meeting point and joined directly to the respective rear edges of said top.

2. A stretchable fabric foot-covering comprising: a top having bottom front and side edges, and rear edges converging upwardly from the rear ends of said side edges, a combination stretchable fabric sole and heel element having a sole portion joined to the bottom front and side edges of the top, and a turned up heel portion, said portions being more stretchable transversely than longitudinally, said heel portion having side edges converging to a sharp meeting point and joined directly to the respective rear edges of said top, said rear edges of the top being joined directly to each other above the heel portion, and said converging heel portion having its point positioned in the lower end of the juncture of the rear edges of the top.

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