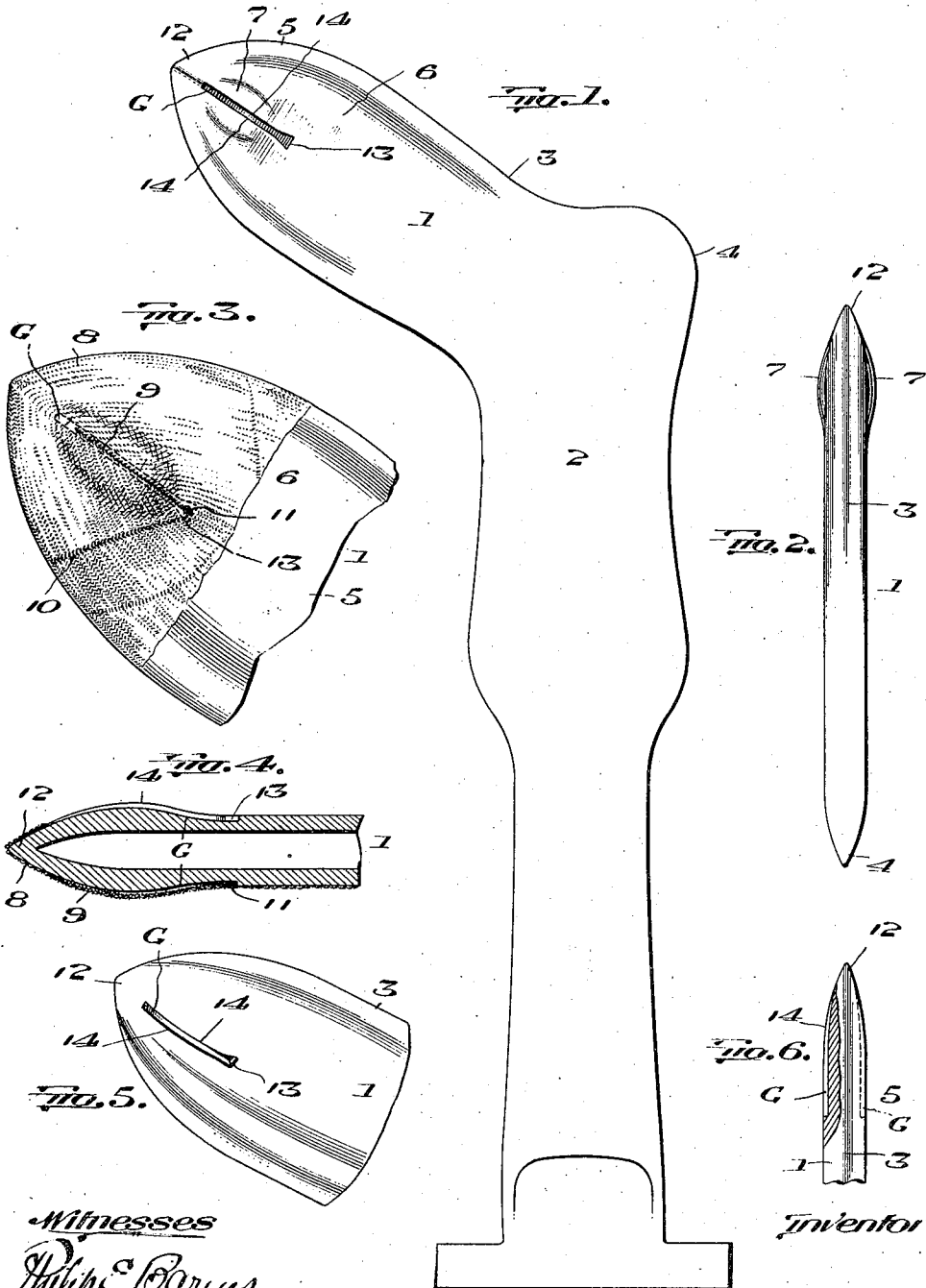


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 HOSIERY SHAPING FORMER.
 APPLICATION FILED MAR. 17, 1917.

1,235,534.

Patented July 31, 1917.



Witnesses
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HOSIERY-SHAPING FORMER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLIFTON D. STACK, a citizen of the United States, residing at Waupun, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Hosiery Drying and Shaping Forms with Seam-Positioning Grooves, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates broadly to hosiery finishing structures and more especially has reference to hosiery drying and shaping forms.

The invention, in one aspect, has for its main object the construction of a hosiery drying and shaping form possessing effective means for insuring the accurate positioning thereon of the hosiery, whereby the ultimate product may have its wales, gores and seams nicely disposed to give finish thereto.

In the "boarding" of hosiery (which contemplates the placing of the same on drying instrumentalities) as heretofore practised, it has been difficult—in fact well-nigh impossible—to effect a positioning of the wales, gores, etc., in proper parallel and other relation: Seamless hosiery, as manufactured at the present time, includes a so-called gore or knitter's seam formed in the toe-portion at opposite sides of the goods. These gores usually extend at an angle to the so-called looper's seam in such goods. It is essentially important, for a nicely-finished product, that the two gores—when the hosiery-article is in its flattened condition—shall extend in exactly the same direction and lie one against the other. When so disposed, the wales of the goods will in consequence be properly positioned and the hosiery will then possess a pleasing and finished appearance. If not so positioned, and if the gores are laid out of true, it is usually necessary to reboard the goods; and this sometimes amounts to several dozen articles per day, especially in the case of inexperienced or careless boarders. This involves a reduction in a mill's daily production, an expense to the manufacturer, and dissatisfaction to the workmen. Heretofore, no means have, to my knowledge, been provided or proposed whereby the advantages of my invention might be secured.

It is, therefore, a specific object of the present inventive concept to provide a

simple and easily constructed instrumentality on a hosiery form—and, particularly, of the type known as internally-heated drying and shaping forms—whereby the toe-portion first, and then other portions, of the hosiery article may readily and accurately be positioned thereon.

Another object within the contemplation of the invention is to provide an internally-heated hosiery drying and shaping form with a gore-positioning depression, such as an elongated groove or slot, one disposed at each side of the toe-portion of the form.

Still another object of the invention, in a more specific aspect thereof, is to provide a hosiery drying and shaping form with two elongated gore-positioning grooves which extend from adjacent the end of its toe-portion back toward the heel-portion, each groove having a length approximating the length of the knitter's gore or seam, but being, at the same time, such that the boarder or operator may determine, by these grooves, that the gores or seams occupy a proper relative position in respect thereto.

In order that the invention may be more readily comprehended, I have disclosed certain embodiments thereof in the accompanying drawings, these being, however, merely illustrative and reveal various ways of utilizing the principles and advantages of the invention.

In these drawings:

Figure 1 is a view in elevation of a hosiery drying and shaping form constructed in accordance with the invention;

Fig. 2 is a view in end elevation thereof;

Fig. 3 is a fragmentary view, on a larger scale, in elevation, of portions of the form and of a stocking mounted thereon, the latter being partly cut away more clearly to disclose the function of the seam-receiving and gore-positioning groove cut therein;

Fig. 4 is also a fragmentary view, in transverse section, showing the gore positioned in the groove;

Fig. 5 is a view in perspective of a modified form of construction; and

Fig. 6 is a fragmentary view thereof, partly in section.

Referring to the drawings, and particularly to Figs. 1 to 4 thereof, the reference-character 1 designates the foot-portion and 2 the leg-portion of an internally-heated drying and shaping form, of the type disclosed in Letters-Patent No. 1,207,496,

granted December 5th, 1916. It is to be understood, however, that the invention is capable of application to other types of hosiery drying forms. In this instance, the form has reduced edge-portions 3, 3 adapted to produce a crease-like formation in the hosiery placed thereon. It is likewise hollow to contain a heating medium to heat the form from within.

The foot-portion 1 includes a heel-section 4 and a toe-section 5.

The toe-section, at opposite sides, includes (in this instance) a primary fabric-flattening surface 6 which encompasses and merges into an auxiliary surface or thickened portion 7. The auxiliary surfaces are of such dimensions as to function to assist in ironing out and flattening down the toe-section 8 of the hosiery article. The provision of these auxiliary surfaces on a hosiery form is not, *per se*, of my invention; hence, I do not herein deem it necessary to detail a description thereof except in so far as they include the features, in combination, now to be explained.

Seamless hosiery usually is formed with a knitter's seam or gore 9, a looper's seam 10 angulated thereto, and a looper's knot 11 at the intersection of the gore with the seam. The stitches or wales of which the hosiery is fabricated lie in parallel relation one to the other at different portions of the article. The proper relating of the two gores on opposite sides of the toe-section of the article controls, in a large measure, the position of the wales.

Extending intermediate of the crease-producing edges 3 of the toe-section, and at opposite sides thereof, are two grooves or slots G, these beginning somewhat back of the end 12 of the toe-section and extending for a length approximately two and a half ($2\frac{1}{2}$) inches back toward the heel-section. Each of these grooves is preferably of a width and depth that bear a definite relation to the dimensions of the gore 9 of the stocking. In practice, the width of the groove has advantageously been found to be most effective when dimensioned to receive the gore without permitting any material stretching of the fabric in or adjacent the gore. Any such stretching results in the gore being distorted and made more prominent. The depth of the groove is, for the same reason, particularly dimensioned. For a fairly heavy grade of goods, the depth of the seam can advantageously be made one-thirty-second ($\frac{1}{32}$ inch) of an inch, while the width could be, say, five-sixteenths ($\frac{5}{16}$ ths) of an inch. These relative dimensions may, however, be varied according to the grade, character and weight of the goods, etc.

Preferably and as shown, the rear end of each groove is widened, somewhat, as at 13, in order to present a larger recess in which

the looper's knot 11 may be seated. The pressing of this knot into the recess tends to locate it more within the stocking and, thus, reduces its prominence on the outside surface thereof. This is very desirable and my invention functions to facilitate this result.

The grooves are disclosed opposite each other, and have fairly prominent corners 14 which constitute additional means for guiding the operator's fingers and enable the proper positioning in respect thereto of the gore, the aim being to effect an accurate positioning of each of the gores opposite each other when the hosiery article is placed upon the form and in order that the finished product may have these gores lying one against the other, whereby the appearance of the goods is very greatly improved.

In the construction disclosed in Figs. 1 to 4, the grooves are cut in the thickened portions 7. In Figs. 5 and 6, however, these grooves are shown as cut in the body portions of the metal, which, in this instance, are not enlarged; it being understood that my invention is applicable to both types of structure.

From the foregoing, it will be perceived that I have devised an effective structure for more accurately positioning certain defined parts of a hosiery-article when disposed on hosiery-drying and shaping forms, whereby the gores thereof are definitely aligned, the wales brought into straight and parallel relation, the looper's knot (where it otherwise would be prominent on the external surface of the goods) disposed of, etc., each of these advantages resulting in giving to the goods a better and more salable appearance, and reducing the possibility of the goods having to be reboarded.

I am aware that it has heretofore been proposed to provide a hosiery form with a single groove at or adjacent its rear edge, the function of this being to receive a seam constituting a part of so-called "full-fashioned" hosiery. Such constructions are distinguished from my invention, in that the gore-positioning grooves constitute a guiding means for the operator and enable the definite relating of the two gores of the hosiery-article and, thus, of its wales, etc., in respect to the crease produced therein by the edges 3.

What I claim is:

1. A hosiery drying and shaping form including a foot-section provided with oppositely disposed, similarly dimensioned gore-positioning depressions for truing up hosiery superposed thereon.

2. A hosiery drying and shaping form including a toe-section having fabric-flattening surfaces and reduced edge-portions for effecting a crease-like formation in hosiery thereof, said toe-section being provided with oppositely disposed gore-posi-

tioning grooves extending in the same direction for truing up the hosiery thereon.

3. A hosiery drying and shaping form including a toe-section having beveled fabric-flattening surfaces provided with two oppositely disposed gore-positioning grooves both extending in the same direction, and hollow to contain a heating medium for heating the form from within.

4. A hosiery drying and shaping form comprising a foot-portion including a toe-section having substantially enlarged portions at opposite sides formed with a central elevation, said toe-section being provided with a plurality of gore-positioning grooves extending through at least a portion of said elevation.

5. A hosiery drying and shaping form including a toe-section comprising primary fabric-flattening side-surfaces and an auxiliary flattening surface intermediate of and merging into the primary surfaces, each of the side-surfaces being provided with an elongated gore-positioning groove disposed intermediate the edges of the toe-section and cutting into the auxiliary surface.

6. A hosiery drying and shaping form in-

cluding a leg-portion and a foot-portion, the latter having a toe-section comprising oppositely-disposed fabric-flattening side-surfaces and an auxiliary flattening surface intermediate of and merging into the primary surfaces, the auxiliary surface at each side being provided with an elongated gore-positioning groove disposed intermediate the edges of the toe-section and extending at an angle to but occupying a position remote from the leg-portion and terminating in a knot-receiving recess.

7. A hosiery drying and shaping form including a toe-section comprising on its sides oppositely-disposed fabric-flattening surfaces provided intermediate the edges of the toe-section and approximately centrally thereof with gore-positioning grooves of a width greater than their depth, and terminating in a knot-receiving recess.

In testimony whereof I affix my signature in presence of two witnesses.

CLIFTON D. STACK.

Witnesses:

H. F. CARROLL,
M. HOPKINS.