July 29, 1952 A. E. ISCHINGER 2,604,770

HOSIERY

Filed Dec. 19, 1951 3 Sheets-Sheet 1

FIG. 1.

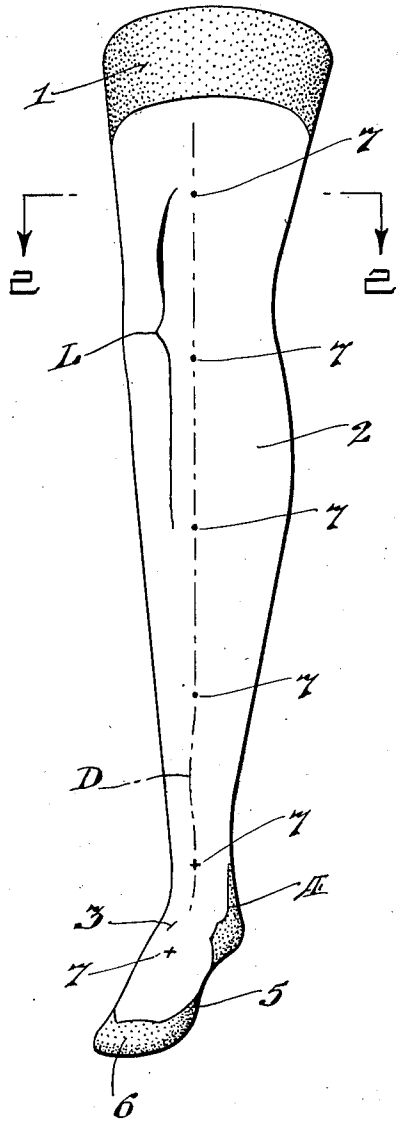


FIG. 2.

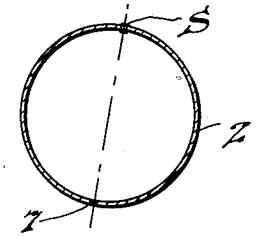


FIG. 3.

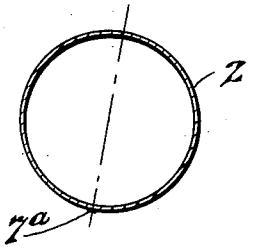


FIG. 4.

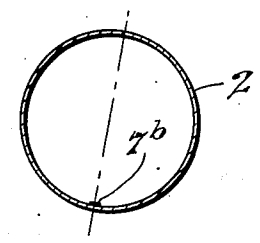
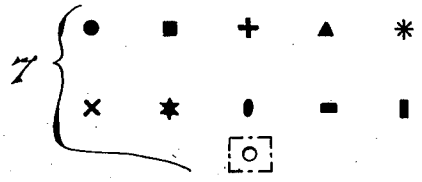


FIG. 5.



INVENTOR:

Alfred E. Ischinger

July 29, 1952 A. E. ISCHINGER 2,604,770

HOSIERY

Filed Dec. 19, 1951 3 Sheets-Sheet 2

FIG. 6.

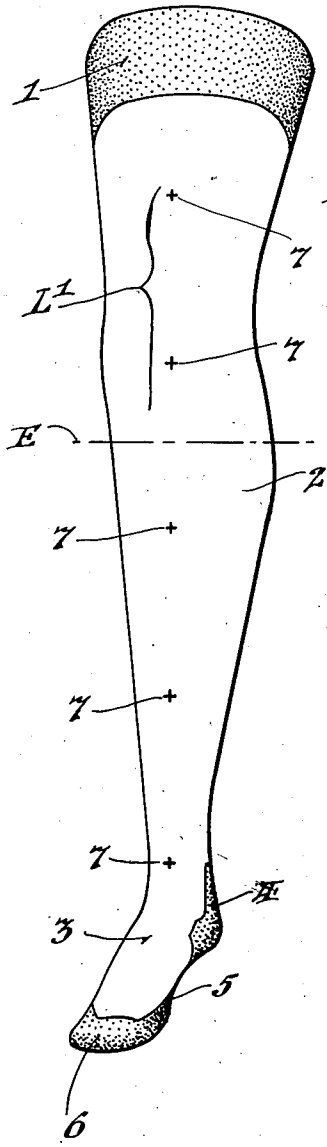


FIG. 7.

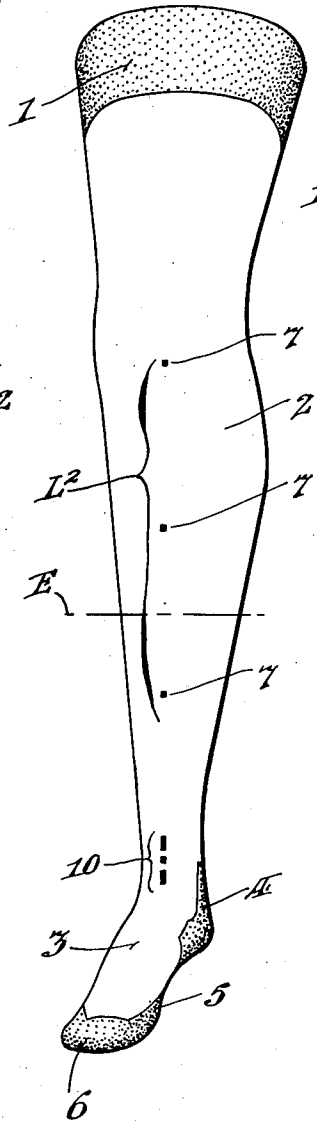
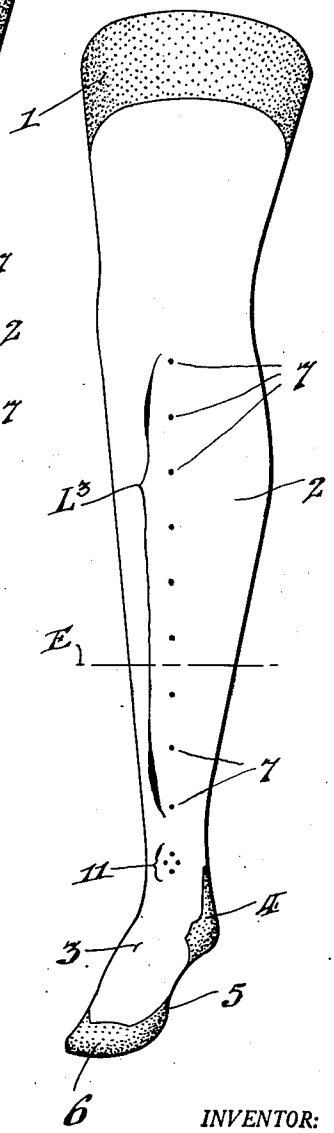


FIG. 8.



INVENTOR:

Alfred E. Ischinger

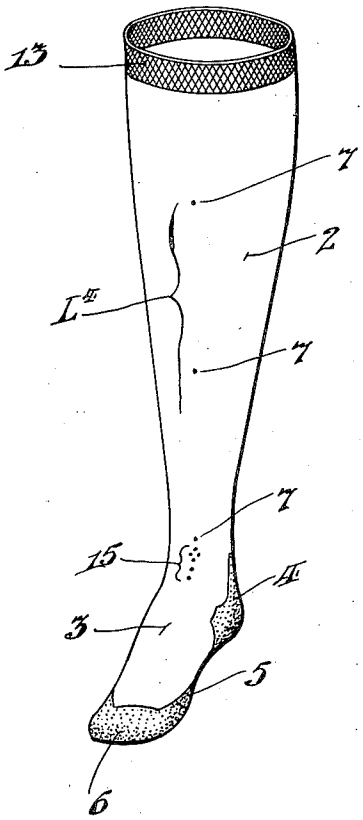
July 29, 1952 A. E. ISCHINGER 2,604,770

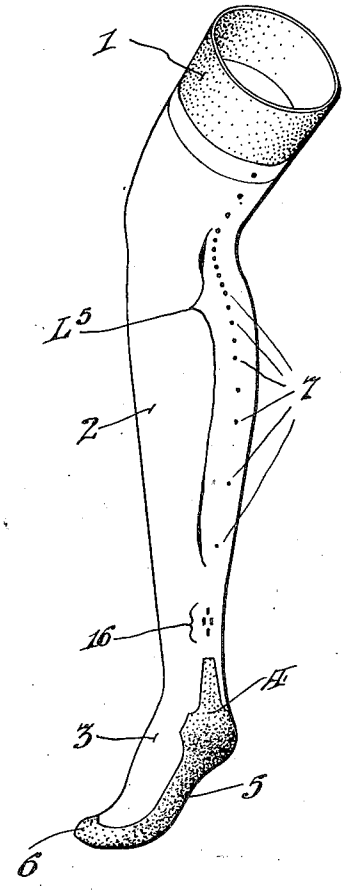
HOSIERY

Filed Dec. 19, 1951 3 Sheets-Sheet 3

FIG. 10.

FIG. 9.





INVENTOR:

Alfred E. Ischinger.

Patented July 29, 1952

2,604,770

UNITED STATES PATENT OFFICE

2,604,770

HOSIERY

Alfred E. Ischinger, Reading, Pa.

Application December 19, 1951, Serial No. 262,408

16 Claims. (Cl. 66—178)

1

This invention relates to hosiery and more particularly to full-fashioned and seamless stockings worn by women and girls, which stockings extend above the knee, or to the vicinity of the knee and are provided with a linear element of such length as to serve the purpose of an indicator, ornament, leg slenderizing means, etc., when arranged in substantially vertical median plane relation at the front, or the rear of the stockings.

Hosiery of the type mentioned, has heretofore been provided at the front thereof with indicator structures comprising a linear element as disclosed, for example, in my Patent No. 2,569,434, which was issued September 25, 1951, and in my design patents D. 164,633 to 164,638 inclusive and 164,756. The linear element of said indicator structures is not only adapted to facilitate the straight line positioning of the hosiery in conjunction with its application to, or use on the legs of the wearer, but is also adapted to perform an ornamental as well as a leg slenderizing function. Hosiery of the type mentioned, has heretofore also been provided, at the rear thereof, with an ornamental structure comprising a linear element of a certain length, as disclosed, for example, in the G. D. Dowell design Patent No. D. 164,411, which was issued September 4, 1951. The structures exemplified by said patents, are characteristically similar, to a certain extent, in purpose, function and result, and they have the common characteristic of including a linear element which is substantially continuous and solid in configuration. The present invention concerns an important and highly desirable improvement in such hosiery and in the said linear elements thereof.

One object of my invention is to provide novel hosiery of the type indicated.

Another object is to provide such hosiery having a novel linear element structure incorporated therein which serves one or more of the purposes indicated, in a better and more advantageous manner than the similar structures of the prior art.

Another object is to provide such hosiery and linear element means having certain structural and functional features of advantage over the similar hosiery and means of the prior art.

A further object is to provide such hosiery having a linear element of greatly simplified construction and arrangement, that is adapted to serve its intended purpose in a more refined and advantageous manner than heretofore accomplished by the similar prior art means.

It is also an object to provide such hosiery

2

having a linear element which is capable of performing certain new and useful functions, or results, not attainable with the similar means of the prior art.

Another object is to provide such hosiery having a linear element embodied and arranged therein in such manner that it is relatively much less conspicuous, or less prominent, than the similar means of the prior art.

An additional feature resides in the provision of such hosiery having a linear element that is partly, or entirely composed of small ornamentation units of a geometrical or other design configuration, which units are suitable for arrangement in a certain relatively spaced order so as to produce a straight linear formation substantially in the vertical median plane at the front or rear of a stocking, so as to effectively serve as an indicator, an ornament, as a leg slenderizing means, or some other purpose, while the space arrangement between said members provides plain stocking, or fabric areas, adapted to minimize, or eliminate, certain unfavorable conditions incident to the use of such hosiery, as hereinafter more particularly pointed out.

Another object is to provide such hosiery in which the said linear structure is entirely composed of ornamentation units, including one or more distinctive ornamentation units that are variously arranged in relation to the structure, for example, at one end thereof, or at both ends thereof, or intermediate of its ends.

Other objects are, to provide hosiery of the type mentioned having a linear structure, comprising an aligned series of small relatively spaced ornamentation units that are spaced from each other a certain distance, which structure is designed to make hosiery of the type mentioned more useful and desirable from the critical standpoint of the users thereof and the trade in general; which linear structure opens the door to new hosiery developments, style trends and design creations; which linear structure can be readily integrally or separately embodied in hosiery in compliance with the usual prior art practices followed in the manufacture of hosiery having clocks or other designs integrally formed in the fabric thereof, or embodied therein by separately formed or applied means, also in accordance with the practices well known in this field; and which linear structure may include an arrangement of ornamentation units some of which are integrally embodied in the hosiery fabric and some of which are separately embodied in the hosiery fabric in accordance with said prior art practices.

With these and other objects in view, which will become more readily apparent from the following detailed description of the various practical and illustrative embodiments of the improvements shown in the accompanying drawings, my invention comprises the novel hosiery, linear element structures and ornamentation units, general features of hosiery construction and arrangement of parts in cooperative relationship, as more particularly indicated and defined by the hereto appended claims.

In the accompanying drawings:

Figure 1 is a front perspective view of a full-length, full-fashioned stocking of the type worn by women and girls, which embodies one form of my invention.

Fig. 2 is a cross-sectional view of the stocking of Fig. 1, taken substantially as indicated by the arrows 2—2 on the latter.

Fig. 3 is a cross-sectional view, similar to Fig. 2, but of a seamless stocking of the type worn by women and girls, and illustrates a certain modified form of my invention.

Fig. 4 is a cross-sectional view, similar to Fig. 3 and illustrates a seamless stocking embodying another modified form of my invention.

Fig. 5 illustrates, by way of exemplification, various types of ornamentation units that may be utilized in practicing my invention.

Figs. 6, 7 and 8 are similar front perspective views of three different stockings of the type worn by women and girls, which stockings are representative of the full-fashioned or seamless variety of modern construction and design and each of which embodies a different practical and illustrative modification of my invention.

Fig. 9 is a front perspective view of a knee-length stocking of the type worn by women and girls and representative of either a full-fashioned or seamless variety of modern construction and design, which stocking embodies another modified form of my invention.

Fig. 10 is a rear perspective view of a full-length seamless stocking which embodies another modification of my invention.

It will be helpful to an understanding of my invention to first briefly consider the more important aspects and phases thereof, so that these may be kept in mind when subsequently reading the detailed description of the various practical and illustrative exemplifications of my improvements shown in the drawings.

Accordingly, it is noted that hosiery embodying an indicator structure, or sighting means of the type disclosed in my said Patent No. 2,569,434, comprises a straight substantially solid continuous line effect which is located in median plane relation to the front of the stocking and extends downwardly from the knee area of the latter to the vicinity of the angle area thereof. When such a stocking is in use and the line effect thereof is straight, it indicates that the stocking is in straight line position on the leg of the stocking wearer and if the particular stocking is a full-fashioned stocking, the said line effect also indicates that the rear seam thereof is in its proper straight line position. Since such a line effect, when straight, also best carries out its intended purpose as an ornament and as a leg slenderizing means, it will be understood that the said line effect performs its said three functions to best advantage when it is maintained in its normal straight line position relative to the leg. On the other hand, if one or more intermediate sections of this substantially solid continuous line effect are accidentally, or otherise displaced, distorted, or deviate laterally from said normal straight line position, the ornamental and leg slenderizing functions of the line effect are no longer carried out to best advantage, since a curvature or other irregularity in the line effect introduces an undesirable or disturbing appearance item insofar as stocking ornamentation and leg slenderization is concerned, despite the fact that such irregularity performs the function of signaling that the stocking, or the rear seam thereof, is not in straight line position on the leg of the wearer and facilitates correction of this condition. Then too, it may happen that when initially applying hosiery having such a substantially solid continuous line effect, to the legs of the wearer, the latter, for one reason or another, fails to apply one or both of the stockings properly, so that the line effect is at least partly, initially in an off center, or laterally displaced position. This will again result in the undesirable appearance item mentioned relative to stocking ornamentation and leg slenderization.

These and other conditions effecting such appearance items, are practically overcome by my present invention in that the linear structure of the various embodiments thereof, instead of being continuous and forming a substantially solid line, as disclosed by said patents, is composed of small ornamentation units that are separated from each other by spaces, or plain fabric areas, of such dimensional extent, as to provide special blank stocking material areas intermediate said members, where the lateral deviations of the stocking fabric from the median line, are ordinarily invisible due to the absence in said areas of any part of the linear structure which would visibly indicate this. Nevertheless, the line effect produced by the ornamentation units is such that it will substantially carry out and maintain the various functions of an indicator, ornament, leg slenderizing means, etc. The provision of the said special blank stocking material areas intermediate the ornamentation units, does not detract from the overall line effect produced by the latter. However, the said special intermediate areas make the line effect relatively less conspicuous, or less prominent and more refined. Depending upon the spacing arrangement of the ornamentation units, it will also be realized that any slight dislocation of one or the other of said units, for example in the vicinity of the ankle area, from aligned relation with the total number of said units, will be much less noticeable, or conspicuous, than a similarly dislocated substantially solid and continuous line section of an indicator structure of the type disclosed in said patents.

Another important phase of my present novel linear structure stems from the fact that the normally seen part, or section thereof, consisting of a few of the ornamentation units located below the bottom skirt edge of the stocking wearer, imparts a refined but inconspicuous stocking embellishing effect to the stocking. This is a highly desirable attribute of the improvements here involved, since a large percentage of feminine hosiery users take advantage of novel hosiery features only when such features can be utilized to advantage without arousing an undue amount of attention. Furthermore, since said normally seen portion of the linear structure consists of only a few ornamentation units, the ornamental and leg slenderizing func-

tion of the structure is not affected to any substantial extent when one, or perhaps more of the ornamentation units visible in the vicinity of the ankle area, deviate somewhat in a lateral direction from the front or rear median line, due to initial improper positioning of the stocking on the leg of the wearer, or due to carelessness, or lack of attention on the part of the stocking wearer in maintaining such normally visible line effect properly centralized. This feature is also important and desirable because the intended purpose and function of the line effect will be substantially maintained at all times when the stockings are in use, without requiring the exercise of any unusual care or attention on the part of the stocking wearer.

The individual ornamentation units which make up the linear element of my novel hosiery improvements herein disclosed, may be of a geometrical, or other design configuration and may all be alike or comprise a variety of such units. These units may also be made alike, or dissimilar, in color, shape, or otherwise, relative to each other, and contrasting in relation to the adjacent stocking fabric areas, and may be integrally or otherwise united with the stocking fabric, as previously indicated. The hosiery of my invention may also include a linear structure composed entirely of ornamentation units, one or more of which are individually more distinctive and variously arranged in relation to the structure, for example, at one end thereof, or at both ends thereof, or intermediate of its ends. These features make possible a practically unlimited variety of stocking design creations, and provide a stocking structure which has novel appearance appeal and aesthetic merit.

Broadly considered, therefore, my invention comprehends hosiery, or a knitted stocking of the character indicated, which extends at least to the knee area of the wearer and comprises, a foot section, a leg section, and a structure located substantially in the vertical median plane extending through the front and rear of the stocking, which structure forms a clearly visible stocking ornamentation and includes an alternating arrangement of alignedly combined ornamentation units and blank stocking material areas, said units forming individual component parts of said stocking ornamentation and being of such size that they extend over an area equal to a plurality of stitches and are clearly visible to observers of the stocking when the latter is in use, and said areas being of such length as to separate the ornamentation units a certain distance so that limited lateral displacement of said areas during use of the stocking will not affect the appearance of said stocking ornamentation.

Referring to the drawings, which exemplify various embodiments of my invention, Figs. 1 and 2 illustrate a knitted, conventional, full-fashioned stocking of modern design and construction, which is made from a shaped blank produced on a knitting machine in accordance with the usual and well known practice. The stocking of Figs. 1 and 2 is of the modern conventional type produced, as usual, of silk, nylon, or other yarns used for this purpose and made up of standard type stitch or loop formations, such as plain loops, non-run loops, lace stitches, etc., or combinations of these, as formed by modern hosiery manufacturing practices. Such a stocking comprises a welt section 1, a leg section 2, a foot section 3 and a longitudinally extending rear seam S. In accordance with the more common practice, the foot section 3 may be provided with one or more reinforced portions, such as a heel portion 4, a foot-sole portion 5 and a toe portion 6. However, it is to be understood that the inclusion of such reinforcements is not essential to the stocking improvements of my invention, but rather constitutes a matter of choice relative to stocking construction and appearance.

The stocking of Figs. 1 and 2 includes a linear element, or structure, which is generally indicated by the letter L and comprises a series of small relatively spaced ornamention units 7, that are individually located in the front median line of the said stocking, that is, in direct opposition to, or superimposed relative with, the rear seam of the stocking, or substantially so.

The ornamentation units 7 may be of a configuration and size approximately in conformity with the outline exemplification thereof as shown in Fig. 5, that is, circular, square, cross-shaped, triangular, asterisk-shaped, X-shaped, star-shaped, elliptical, horizontally-rectangular, vertically-rectangular, etc., or may be produced by a substantially circular or other shaped symmetrical aperture, as indicated by the bottom one of said units 7 in Fig. 5, and may be formed integral with the stocking fabric, or separately formed or applied to the latter, depending upon the type unit selected and its embodiment thereof by one known method, or means, or another, as carried out when embodying prior art clocks and other design configurations in hosiery generally. It will be realized that any such ornamentation unit 7, can be separately formed or applied to the stocking fabric, by painting, printing, or embroidering the same thereon, or by following an application process known as "flockingly." Integral embodiment of said dot-like units 7, whose configuration is suitable for this purpose, may be effected in accordance with said prior art practices by interknitting with the body yarn of the stocking, an extra yarn of the same or a different color, so as to provide a unit of the selected configuration having a shadow-like appearance, or a more pronounced color contrast appearance, or such unit may be formed of contrasting loops or stitches, such as lace stitches, non-run stitches, tuck stitches, etc., or the units may be embodied by a split-seam connection, or otherwise in the many different ways in which clocks, or other designs, are integrally incorporated in knitted fabrics by prior art practices. In this connection, it is also noted that if desired, the units 7, or the linear structure L, can be integrally, or sepaartely united with, and arranged in the stocking fabric, substantially in accordance with the disclosure of my said Patent No. 2,569,434. Furthermore, it will be understood that when integrally embodying the ornamentation units 7, the outline thereof may not attain the perfect outline shown in Fig. 5, since interknitting of an extra yarn will produce a stepped effect where the unit is widened or narrowed and lace or other openings in the fabric may also exhibit a characteristic outline difference. The ornamentation units 7, are preferably of a size, or diameter, as produced by interknitting of an extra yarn over a distance of two, or four, needles, or stitches, and can, of course, be made larger, if desired.

The distances between the respective ornamentation units 7 of which the linear element L is composed, are preferably, but not necessarily, uniform throughout the entire linear structure, and are such as to provide plain fabric areas

between the ornamentation units wherein a certain amount of lateral shifting or distortion of the stocking fabric may take place when the stocking is in use, without effecting the straight aligned relation of the ornamentation units 7 directly above and below said areas. A distance of about one inch is ordinarily sufficient for this purpose and this distance may, of course, be much greater, depending upon the character of the line, or design effect desired to be included in the hosiery, as proportionately shown in the drawings. In those areas where there is little or no likelihood that lateral shifting, or distortion of the fabric will take place during ordinary usage of the stocking, the ornamentation units 7 may be separated by a distance which is less than one inch (see Fig. 10). It will be understood, therefore, that the spacing relation of the ornamentation units 7, of the linear structure L, to conform with the arrangement of my invention, is regulated, or governed by, the average lateral shifting, or distorting condition which prevails at the particular location of said members so as to provide plain fabric areas in the stocking at said locations which will permit such shifting or distortion to take place without disrupting the straight alignment of the directly adjacent ornamentation units 7 to any substantial extent in relation to the straight line effect produced by all the ornamentation units 7. Throughout the specification and claims, this spacing distance of the ornamentation units 7, will be designated as "a certain distance."

Fig. 1 shows a linear arrangement of ornamentation units 7, the lower two of which are of a more ornamental character than the others and are located respectively in the instep area and the ankle area of the stocking. The dot-and-dash line D, shown in Fig. 1, indicates how the plain fabric area between certain of the ornamentation units may take on a laterally shifted, or distorted condition, without disrupting the straight aligned relation of the adjacent ornamentation units 7. The said dot-and-dash line D further indicates the way in which a substantially continuous and solid line would be disrupted by an undesirable appearance item when a section of such solid line is laterally displaced or distorted for one reason or another during use of the stocking.

Fig. 3 is a cross-sectional view, similar to Fig. 2, of a stocking which is in all respects like the stocking of Fig. 1, except that it is of the well known seamless variety and in that the ornamentation units 7^a, of the linear element L, which are like the units 7 of Fig. 5, are separately applied to the front or outside of the stocking fabric, by means of, or in accordance with, the prior art practices previously mentioned and followed when applying clocks or other design elements separately, or as explained in my said patent.

Fig. 4 is a cross-sectional view, similar to Fig. 3, and shows the ornamentation units 7^b, of the linear element L, which are like the ornamentation units 7 of Fig. 5, separately formed and applied to the inside of the stocking fabric so that they can be seen at the front thereof through the fabric loops. Here again, the ornamentation units 7^b are applied in accordance with one or the other of the mentioned prior art practices followed in forming and applying clocks, or other design elements separately, or as explained in my said patent.

Figs. 6, 7 and 8 illustrate three different design modifications of my novel linear structure L embodied in full-length stockings which may be either of the conventional full-fashioned type, or of the conventional seamless type. In said figures the stocking parts previously described are designated by corresponding reference characters to avoid redundancy of descriptive matter. In said three figures there is also depicted by a dot-and-dash line E, the approximate location of the lower edge of a skirt of the type usually worn by women and girls, so as to indicate the line structure portion of the stocking normally visible below said edge. It will be apparent from these three exemplifications that my novel linear structure lends itself to a great variety of stocking embellishing designs, or patterns, of a pleasing, simple and refined character. Also, that the normally visible portion of said linear structure may consist of such a small number of the ornamentation units 7, as to create a very inconspicuous hosiery design effect, or that such normally visible portion may include more of said units 7, to thereby create a more pronounced line effect. Furthermore, that various types of the ornamentation units 7 may be utilized in a manner which adds aesthetic appeal to the linear structure.

It is noted that the linear structure L^1 of Fig. 6 consists entirely of ornamental ornamentation units 7, whereas the linear structures of Figs. 7 and 8, identified by L^2 and L^3, respectively, include different ornamentations at their lower ends, as indicated by the numerals 10 and 11, respectively. The circular units 7 of Fig. 8, may be effected by forming small lace openings in the stocking fabric or may be otherwise formed and embodied in the stocking, as previously pointed out.

The variations in length, and ornamentation of my novel linear structures L^1, L^2 and L^3, as exemplified by the illustrations of Figs. 6, 7 and 8, correspond with the disclosures of my related copending design patent applications, that are identified by serial numbers and filing dates, as follows: D. 17,534 filed November 27, 1951; D. 17,535 filed November 27, 1951; D. 17,536 filed November 27, 1951.

Fig. 9 shows my invention embodied in a well known knee-length stocking of the type worn by women and girls, which stocking may be of either a full-fashioned or seamless construction and has an elastic garter 13 at its upper end. Since such stockings are otherwise structurally the same as the stockings already described, the parts thereof corresponding with the similar parts previously disclosed and described, are identified by like reference characters. It will be noted that the modified linear structure L^4 of Fig. 9, comprises an ornamentation 15 at the lower end thereof, in the ankle area of the stocking, and that the three ornamentation units 7 and the ornamentation 15 are all arranged in the vertical median plane at the front of the stocking in such manner that the ornamentation 15 and lowermost unit 7 are combined in this instance.

Fig. 10 shows my invention embodied at the rear of a full-length seamless stocking. Here again, the already described stocking parts are identified by corresponding reference characters. In this instance the linear structure L^5, is located in median plane relation to the rear of the stocking and includes variously spaced units 7 and an ornamentation 16 at its lower end.

It will be understood that both types of the stockings shown in Figs. 9 and 10, may also have

embodied therein the various features of the several linear structural arrangements and modifications previously disclosed and described herein, or the adaptable features of the linear elements of my said patent.

From the foregoing, it will be realized that the linear structure of my invention can be variously embodied in median plane relation, or substantially so, at the front or rear of stockings of the character herein illustrated and described. Furthermore, that the said linear structure may be composed entirely of plain circular, or ornamental, or combined plain and ornamental units arranged in straight line relation, which units are separated from each other by a certain distance. Also, that said linear structure may include ornamental units at one or more points of its length, so that at least one such ornamental unit will be located, if desired, in the stocking foot area, the ankle area, the knee area, or adjacent the welt area, or at all such locations. The said linear structure may furthermore be composed of a plurality of two or more aligned plain or ornamental units and a design ornamentation arranged at one end thereof, or at some other point in relation to the line effect produced by the units, as disclosed herein and in my said patent.

The novel stockings of my invention consequently include a novel linear structure, or element, of the type herein disclosed, which is located at the front or rear thereof as explained and which serves as an indicator or sighting element, as a stocking embellishing ornamentation, or as a leg slenderizing means, when the stockings are in use.

Of course, the hosiery improvements specifically shown and described, can be changed and modified in various ways without departing from the invention herein disclosed, the scope of which is more particularly indicated by the hereto appended claims.

I claim:

1. A knitted stocking of the character described which extends at least to the knee area of the wearer and comprises, a foot section; a leg section; and a structure located substantially in the vertical median plane extending through the front and rear of the stocking, which structure forms a clearly visible stocking ornamentation and includes an alternating arrangement of alignedly combined ornamentation units and blank stocking material areas, said units forming individual component parts of said stocking ornamentation and being of such size that they extend over an area equal to a plurality of stitches and are clearly visible to observers of the stocking when the latter is in use, and said areas being of such length as to separate the ornamentation units a certain distance so that limited lateral displacement of said areas during use of the stocking will not affect the appearance of said stocking ornamentation.

2. A stocking in accordance with claim 1, wherein one or more of the ornamentation units are integrally united with the stocking fabric.

3. A stocking in accordance with claim 1, wherein at least a part of said structure is formed of extra yarn interknitted with the body yarn of the stocking fabric.

4. A stocking in accordance with claim 1, wherein one or more of the ornamentation units are formed of a stitch formation effecting a contrasting appearance of the units relative to the adjacent stocking fabric area.

5. A stocking in accordance with claim 1, wherein one or more of the ornamentation units are formed of separate material.

6. A stocking in accordance with claim 1, wherein certain of the ornamentation units are spaced apart a distance of at least one inch.

7. A stocking in accordance with claim 1, wherein one or more of the ornamentation units are of a substantially geometrical design configuration.

8. A stocking in accordance with claim 1, wherein said structure is provided with a design at one end thereof.

9. A stocking in accordance with claim 1, wherein said structure is provided with an individually distinct ornamentation unit at one end thereof.

10. A stocking in accordance with claim 1, wherein said structure is provided with an individually distinct ornamentation unit at both ends thereof.

11. A stocking in accordance with claim 1, wherein said structure is provided with an individually distinct ornamentation unit intermediate of its ends.

12. A stocking in accordance with claim 1, wherein one end of said structure terminates in the ankle area of the stocking.

13. A stocking in accordance with claim 1, wherein one end of said structure terminates in the foot area of the stocking.

14. A stocking in accordance with claim 1, wherein said structure has an ornamentation unit arranged in the foot area of the stocking.

15. A stocking in accordance with claim 1, wherein said structure has an ornamentation unit arranged in the ankle area of the stocking.

16. A stocking in accordance with claim 1, wherein said structure has an ornamentation unit arranged substantially in the knee area of the stocking.

ALFRED E. ISCHINGER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,491,759	Scott	Apr. 22, 1924
2,583,748	Reinstein	Jan. 29, 1952

FOREIGN PATENTS

Number	Country	Date
350,638	Italy	July 19, 1937