July 28, 1931. F. EMERY 1,816,475

STOCKING

Filed April 29, 1930

Fig. 1.

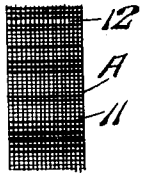


Fig. 2.

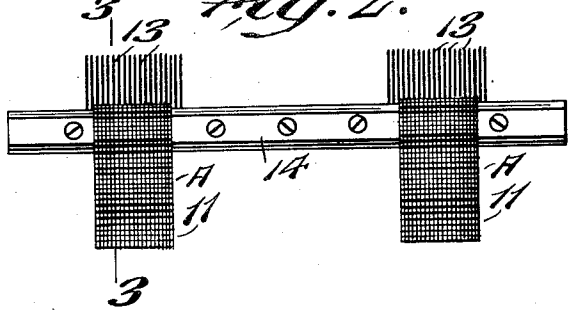


Fig. 3.

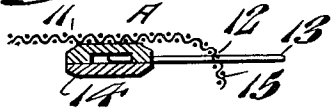


Fig. 4.

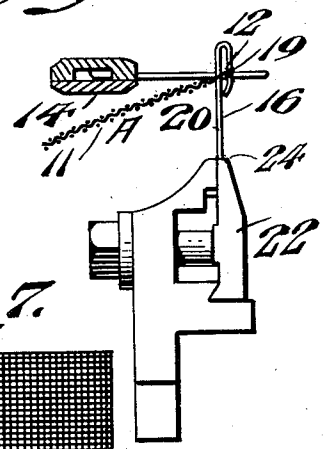


Fig. 5.

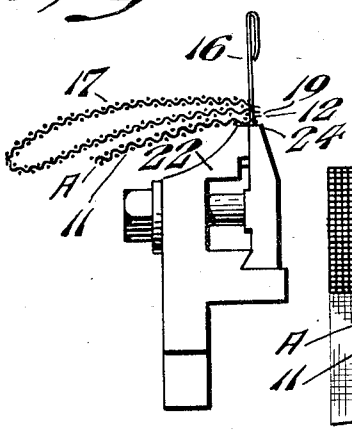


Fig. 7.

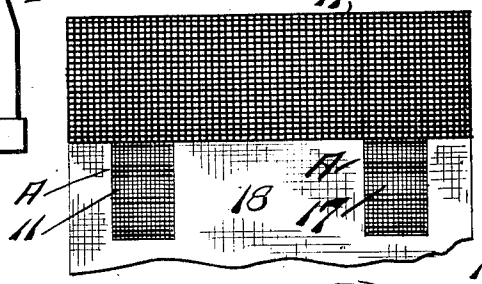


Fig. 8.

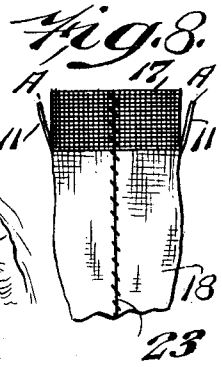


Fig. 9.

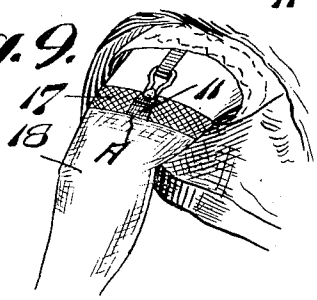
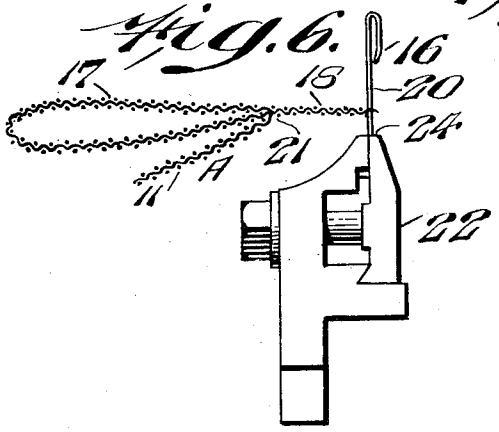


Fig. 6.



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UNITED STATES PATENT OFFICE

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STOCKING

Application filed April 29, 1930. Serial No. 448,216.

This invention relates to stockings, having for its general object the provision a stocking having novel garter flaps integrally knit or woven with the stocking as a whole in a manner to afford a modish, comfortable article of hosiery.

Another object of the present invention is to provide a stocking having garter flaps integrally knitted or woven thereon in a manner to prevent the causing of runs in stockings while enhancing the appearance of the article.

Another object is to provide means in a stocking that will insure the article fitting the leg of the wearer with the seam of the stocking maintained in correct alignment along the central line of the calf of the leg.

A further object of the invention is to provide an improved method of manufacturing stockings whereby a full fashioned stocking with integrally woven or knitted garter flaps may be produced with the utmost economy of means while affording an article that will fit the leg of the wearer in a modish manner without the discomfort occasioned in other articles of a similar kind not having the means herein indicated.

At the present time practically all stockings for women are manufactured either of silk or of a fabric having a lustre, the demand for articles of this type having practically eliminated stockings of coarser fabrics, such as cotton, wool, etc. While silk and equivalent material yield the utmost in the way of an attractive type of hosiery, nevertheless stockings of this type, by reason of their fragile nature are prone to be torn or to lead into runs, the effect of which latter practically eliminates the particular stocking for street wear. It is with a view to preventing "runners" and breaking down of the fabric of stockings at the portions where the garters are customarily attached that I have provided the present integrally knitted or woven flaps which are preferably fabricated in variegated patterns such as plaid, checkered effects with initials etc., which not only serve to maintain the stocking in the correct position on the leg, that is, with the seam at the middle of the back of the leg stretching in a straight line, but also insure a comfortable stocking with no internal seams to irritate the leg.

Other objects and advantages of the method and construction employed in the present invention will be set forth hereinafter, reference being had to the drawings, in which:—

Figure 1, is a plan view of one of the garter flaps as it appears detached from the stocking;

Figure 2, is a plan view of a pair of garter flaps in position upon a transfer bar, this being a preliminary step in my method of manufacturing stockings of the kind herein described;

Figure 3, is a transverse sectional view, partly in elevation, taken on line 3—3 of Figure 2, showing one of the garter flaps as it appears ready for the unravelling process;

Figure 4, is an end elevational view, partly in section, showing another step in my method of producing stockings of the kind indicated, the projecting end of the garter flap illustrated in Figure 3 having been unravelled;

Figure 5, is a view similar to Figure 4 showing the garter flap pressed down upon the welt of the stocking;

Figure 6 is a view similar to Figures 4 and 5 showing the formation of the body of the stocking as an integrally knitted or woven portion of the garter flap and welt;

Figure 7, is a fragmentary plan view of my stocking as it appears in flat form;

Figure 8, is a fragmentary rear elevational view of my stocking as it appears upon the leg of the wearer; and

Figure 9, is a perspective view of the stocking as it appears upon the limb of the wearer.

For the purpose of illustrating my invention I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and or-

ganization of the instrumentalities as herein shown and described.

With more particular reference to the drawings, wherein similar reference characters indicate corresponding parts, A designates one of my garter flaps which comprises a strip or portion of fabric 11 preferably mercerized which is independently knit or woven and which is then incorporated into the body of the stocking and the welt in the manner hereinafter described.

The garter flap A, as best shown in Figure 1, is provided with a loose or open course 12, which latter is adapted to be passed over the transfer points 13 which are secured in a conventional transfer bar 14, as shown in Figure 2. The mercerized garter flap A, as best shown in Figure 3, has an end 15 which projects beyond the row of transfer points 13, this end 15 being unravelled, after which the transfer bar 14, with the two garter flaps A, is manually or otherwise placed on top of a row of spring beard needles 16 and thence transferred on to these needles in the well known manner, after which the transfer bar 14 with its transfer points 13 is removed. The garter flap A is now pushed down, as best shown in Figure 5, in proximity to the clamping top 24 of the needle head hereinafter mentioned. The stocking welt is now knitted and then folded over, this stage of the process being indicated in Figure 5. The garter flaps A and the welt 17 mounted on the row of spring beard needles 16 secured in the needle head 22, are now subjected to the usual knitting process which, as best shown in Figure 6 results in the formation of the body portion 18 of the fabric 11, the latter being incorporated as an integrally knitted or woven portion of the garter flaps A and the welt 17.

Reverting to Figure 4 it is to be observed that the section of mercerized fabric 11 which was shown as having a projecting end 15 has been unravelled to a point where a continuous series of single loops 19 of the projecting end 15 remains in engagement with or about the shanks 20 of the spring beard needles 16,—this following as a necessary consequence since the unravelling process referred to will remove the projecting threads down to the point where they are actually in engagement with the shank of the spring beard needle, as pointed out above. It is now to be observed that with the fabric 11 at the stage indicated in Figure 5, the usual knitting process for the creation of a full fashioned stocking will cause the integral uniting of the full-fashioned body portion 18 of the stocking with the mercerized strips 11 and the welt 17. It has not been deemed necessary to illustrate the entire machine employed for knitting stockings of the kind herein indicated since these mechanisms are well known in the art and are termed "full-fashioned legger machines." At this point it is particularly to be noted that while I achieve a novel stocking in which the garter flaps are formed as an integrally knitted or woven part of the actual stocking, nevertheless I employ the conventional full-fashioned legger machines now in use without any alteration thereof. This is an important consideration since machines of this type are exceedingly complicated and of great value.

The actual method of manufacturing stockings with integral woven or knitted garter flaps comprises the taking of a pair of independently knitted or woven garter flaps A, preferably of mercerized material 11, which may be plain or solid, variegated with stripes, initials, etc., placing a designedly prepared open course 12 on said garter flaps A in operative position upon a row of transfer points 13 in a manner to leave an overhanging portion 15 on the opposite side thereof, unravelling said overhanging portion down to a single series of loops 19 in direct contact with the shanks 20 of said transfer points 13, then placing said transfer points 13 at right angles to a series of spring beard needles 16 mounted in a needle head 22, transferring said single series of loops 19 of said mercerized fabric on to said spring beard needles 16, then thrusting down the said garter flaps and consequently said series of loops on the spring beard needles 16 in proximity to the clamping top 24 of the spring beard needle head 22, then knitting the stocking welt 17 by and on the said spring beard needles 16, and then continuing the knitting or weaving of the full fashioned body 18 of the stocking whereby the welt, the full fashioned body, and the garter flaps included in the present invention are formed practically as a homogeneous knitted or woven article.

By further inspection of Figure 6, it is to be observed that, strictly speaking the mercerized strips of fabric 11 which form the garter flap A are positioned upon the welt and the body portion at the common junction 21 thereof so that it may be assumed that my garter flap A is integrally knit with the welt 17, with the full-fashioned body portion 18, or with both. It is desired to further point out that by the present invention as best shown in Figure 8, the seam 23 of the stocking is maintained at substantially a line centrally positioned relatively to the back of the leg, and even if the seam 23 of the stocking should lie irregularly when the garment is first put on, the action of the garter in walking will tend automatically, so to speak, to draw the stocking and its seam 23 into correct straight midposition. This is a desirable feature since it adds much to the neat effect of the stocking.

Heretofore the attaching of the garter directly to a portion of the welt of the stock-

ing was a prolific cause of "runners" or breaking down of the fabric with the result that innumerable articles of this type were cast aside which otherwise would have rendered service for their normal period of life.

I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claim rather than to the foregoing description to indicate the scope of the invention.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent, is:—

The method of manufacturing full-fashioned stockings with integral garter flaps which consists in knitting a stocking welt on a spring beard needle machine, applying the loose course of an independently prepared garter flap to a row of transfer points on a transfer bar, unravelling the end of said garter flap projecting out from said transfer points, then engaging the transfer points of said transfer bar with said spring beard needle machine to transfer the garter flap on to the shanks of said spring beard needles, then knitting a stocking welt on the garter flap while the said garter flap is on the spring beard needles, and finally actuating the spring beard needle machine to knit a full fashioned stocking body portion as a continuation and an integral part of the stocking flap and stocking welt.

FRANK EMERY.