

June 3, 1941.

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2,244,153

HOSIERY

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2 Sheets-Sheet 1

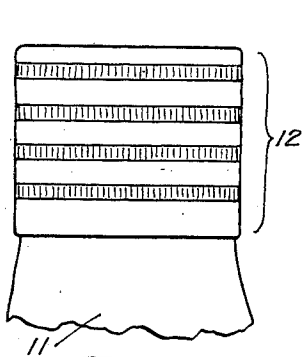


Fig. 2.

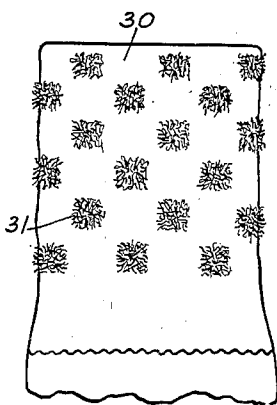


Fig. 3.

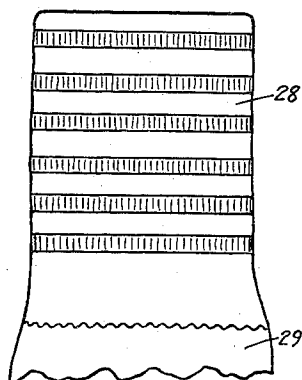


Fig. 4.

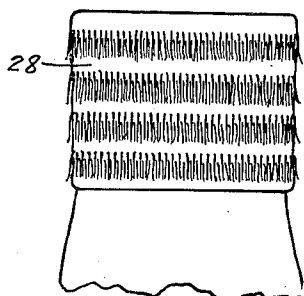


Fig. 5.

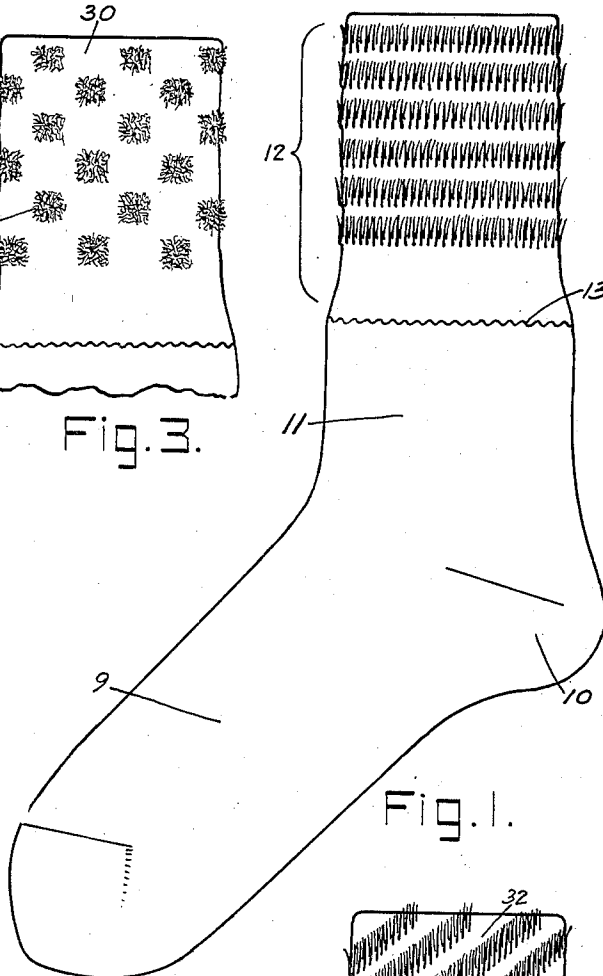


Fig. 1.

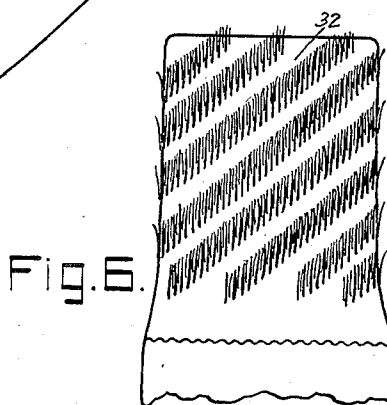


Fig. 6.

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2 Sheets-Sheet 2

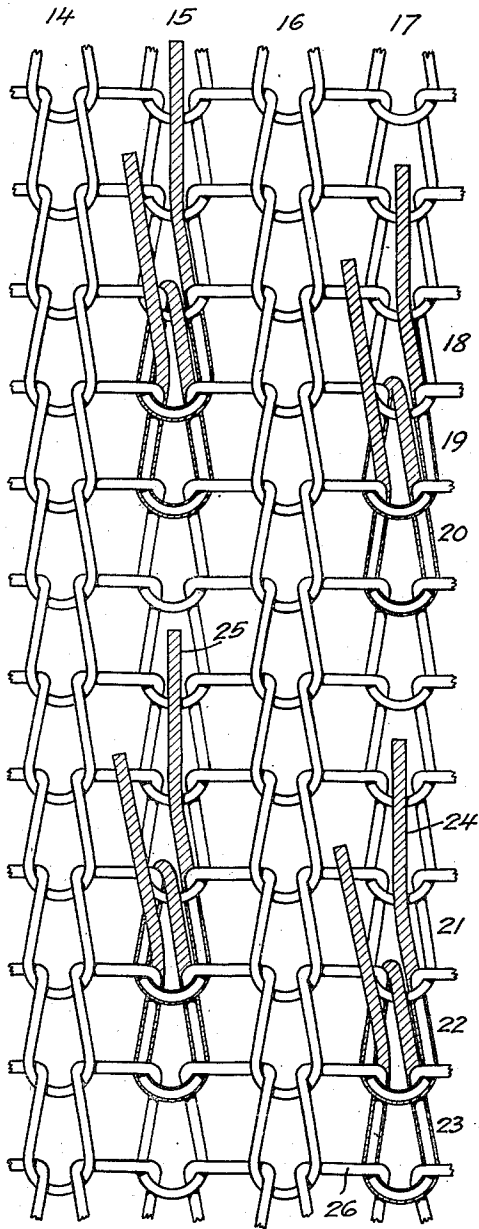


Fig. 8.

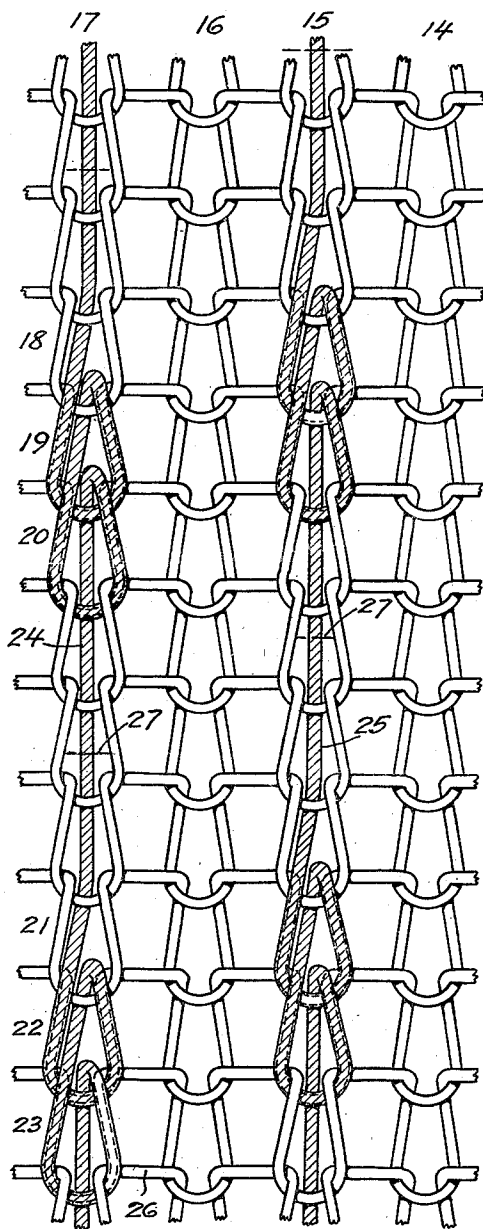


Fig. 7.

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Application September 27, 1939, Serial No. 296,750

11 Claims. (Cl. 66—172)

This invention relates to a knitted fabric ornamented with pile threads projecting from the surface thereof.

It is an object of this invention to provide a knitted fabric with pile thread ornamentation, the outline of which may extend parallel to the courses or at an angle to the wales or both.

It is a further object of this invention to provide a knitted fabric with pile thread ornamentation in which the pile threads extend walewise of the fabric.

A preferred embodiment of the invention is shown in the accompanying drawings in which:

Figure 1 is a view showing a stocking having a top ornamented with the new pile fabric,

Figure 2 is a view showing the stocking of Figure 1 with the top turned down,

Figure 3 is a view showing a modification,

Figure 4 is a view showing another modification,

Figure 5 is a view showing the stocking of Figure 4 with the top turned down.

Figure 6 is a view showing another modification,

Figure 7 is a detailed view of the stitch structure before the piles are cut and

Figure 8 is a detailed view of the stitch structure showing the cut piles.

In the drawings, Figure 1 shows a stocking having the conventional foot 9, the heel 10, the leg or ankle portion 11 and the top 12 of the novel pile ornamented fabric. Normally the leg, heel and foot portions are made of plain or jersey knit fabric and the top 12 may be of either rib or of plain fabric and it is within the scope of my invention to have the top 12 of either plain or rib fabric pile ornamented. In the case of a rib fabric pile ornamented top there is usually a loose course at the bottom of the rib top which is joined to the plain fabric of the leg 11 as indicated generally at 13. In the case of a plain fabric pile ornamented top there is usually no visible line of demarcation between the plain fabric of the leg 11 and the plain fabric of the top 12, although it is customary to knit or otherwise incorporate an elastic thread or threads into the body of the plain fabric top portion in such a manner as to cause the plain fabric top to simulate a true rib fabric top in appearance and stretch.

In Figures 7 and 8 is shown a detail section of the top 12, the pile threads here being shown as incorporated into a rib fabric base but obviously the pile threads could be incorporated into a plain fabric base, the only difference being that the dial wale stitches as well as the cylinder wale stitches would all be drawn in the same direction. The rib fabric section has the cylinder wales 15 and 17 and the intervening dial wales

14 and 16, the Figure 7 showing the outside of the fabric with vertically extending wrap threads 24 and 25 in wales 17 and 15 respectively. In courses 19, 20 and 22, 23 the wrap thread 24 is plated on the body stitches of thread 26 in wale 17 and in courses 18, 19 and 21, 22 the wrap thread 25 is plated on the body stitches of thread 26 in wale 15. The wrap threads 24 and 25 float vertically in back of the fabric between the stitches at which they are plated over the body stitches. It is obvious that the wrap threads, which may be individual to each cylinder wale, may all be of the same or of variegated colors depending upon the design effect desired in the top. It is also obvious that the wrap threads may be knitted into the body fabric at any stitch thereof and the design created by the plated stitches of the wrap thread will vary in accordance therewith. It is to be noted as shown in Figure 7 that the plating of the wrap threads on the body threads creates a plated wrap stitch design on the face of the fabric. It is to be noted that each wrap thread in Figure 7 is knitted for two stitches in two courses in a wale and then floats for four stitches, but the present invention is not limited to the specific arrangement of knitted stitches and floats. The wrap thread may be knitted for only one stitch, or for three or more stitches and may then be floated for five, six, seven or eight or more stitches depending upon the length of pile desired. Basically the wrap thread is alternately knitted and floated, the number of stitches knitted and the number of stitches floated varying with each new design and in accordance therewith. In Figure 7 the design is shown to be at an angle to the wales and any design such as diagonal or horizontal stripes, diamond, rectangular or circular shaped figures may be made. The floated portions of the wrap threads are then cut substantially in half as at 27, 27', so as to provide two upstanding ends of each wrap thread from each spot that said wrap thread is knitted into the body fabric. After cutting, all of the wrap thread cut ends tend to extend in the same direction as clearly seen in Figure 8 so that the pile threads in the resultant design are all uniform in size and substantially parallel to each other. It is possible to cut the floats at points other than in the middle of the same so as to give an irregular effect to the pile. It is likewise possible to use wrap threads of varying diameters so as to give an irregular effect to the pile. The pile threads may be combed and brushed to mingle the individual pile threads with each other.

The pile threads 24 and 25 have been shown as being fastened to the knitted fabric by interknitting therewith as plated stitches, but it is obvious that the wrap threads may be secured

or incorporated in the fabric in other ways and still create a pile fabric when cut. For instance, the wrap threads may be fed below the latches of the needles as the latter knit the body yarn and in such a process the wrap yarns will be incorporated unknit in the fabric, the needles knitting the body yarn and casting off the wrap yarns unknit to be caught in the fabric.

In Figure 1 the top 12 has an upwardly extending pile fabric design of horizontal stripes and since it is the reverse side of the fabric from which the pile extends, the top 12 may be said to be reversed. The Figure 2 shows the hose of Figure 1 with the top 12 thereof turned down and it will be seen that the turned down top 12 has a design of horizontal stripes on the outside face of the turned down fabric, the design being formed by plated stitches of wrap threads in each wale of the fabric. Four horizontal stripes appear in Figure 2 whereas there are six horizontal stripes in Figure 1 and this is because the top has only been partially turned down so as not to reduce the leg length too much.

In Figure 4 the top 28 has been secured to the leg 29 of a stocking with the right side of the fabric outermost so that with the top standing straight up the horizontal plated stripes are on the outside of the top and the pile thread stripes are on the inside of the top. Figure 5 shows the same stocking with the top turned down in which case the pile thread stripes are visible with the piles thereof extending downwardly.

In Figure 3 the top 30 is shown secured to the leg of a stocking with a design of small rectangles 31 thereon. The rectangles 31 are each formed of a plurality of pile threads which have been brushed so as to thoroughly mingle with each other.

In Figure 6 the top 32 is shown secured to the leg of a stocking with a diagonal stripe pile design thereon. The diagonal stripes may be combined in various ways and need not all extend in the same direction, that is, the pile stripes may extend at right angles to each other.

The pile ornamented fabric may be made tubular in shape on a circular rib or plain machine having means to wrap design threads about the cylinder needles or it may be made flat on a flat rib or plain machine having means to wrap design threads about the needles of the machine. In the case of plain knit fabric, the pile threads may extend from adjacent wales of the fabric and in some cases the pile threads may each be knitted into more than a single wale.

The Figure 1 shows a straight up top 12 with the piles in the ornamented area extending upwardly, the top 12 having a loose course 13 at bottom thereof, and it is possible to have a straight up top with the piles in the ornamented area extending downwardly by reversing the top 12 end for end and securing the top 12 in such reversed position to the leg 11 of the stocking.

I claim:

1. A knitted fabric comprising a body fabric of wales and courses knit of a body yarn or yarns and additional walewise extending wrap threads incorporated in said body fabric and providing an ornamental cut pile design on one face of said fabric and a different type of ornamental design on the other face of said fabric.

2. A knitted fabric comprising a body fabric of wales and courses knit of a body yarn or yarns

and additional walewise extending wrap threads plated on selected body yarn stitches and providing a plated design on the face of the fabric and a cut pile design on the back of the fabric.

3. A knitted fabric comprising a body fabric of wales and courses knit of a body yarn or yarns and additional threads extending walewise of the fabric, said additional threads being incorporated at selected courses of said body fabric and providing an ornamental cut pile design on one face of said fabric and a different type of design on the other face of said fabric.

4. A knitted fabric comprising a body fabric of wales and courses knit of a body yarn or yarns and additional threads each individual to a wale of the fabric, said additional threads being incorporated at selected courses of said body fabric and providing an ornamental cut pile design on one face of said fabric and a different type of design on the other face of said fabric.

5. A knitted fabric comprising a body fabric of wales and courses knit of a body yarn or yarns and wrap threads each individual to a wale of the fabric, said wrap threads being plated on the body yarn stitches in selected spaced apart courses with the wrap threads terminating between said spaced apart courses and projecting from the back of the fabric as cut pile.

6. A knitted fabric comprising a body fabric of wales and courses knit of a body yarn or yarns and additional relatively short pile threads each individual to a wale of the fabric, each of said pile threads being plated on the body yarn stitches for one or more courses with the ends of said pile threads projecting from the back of the fabric.

7. A rib knitted fabric comprising a body fabric of inside rib and outside plain wales knit of a body yarn or yarns and additional relatively short pile threads each individual to a plain wale of the fabric, each of said pile threads being plated on the body yarn stitches for one or more courses with the ends of said pile threads projecting from back of the fabric.

8. The process of forming a pile ornamented fabric including the step of knitting a body fabric of one or more body yarns with one or more additional threads extending walewise of the fabric, the said additional threads being plated on the body yarn stitches at one or more places for one or more courses and floated on the back of the fabric between said places and the step of severing said floated additional threads between said places to provide cut pile.

9. A knitted stocking comprising plain knitted foot and leg portions and a rib knitted top portion having one or more ornamental cut pile threads extending therefrom, each of said threads extending walewise of said rib top.

10. A knitted stocking comprising plain knitted foot, leg and top portions, said top portion having one or more ornamental cut pile threads extending therefrom, each of said threads extending walewise of said top.

11. A knitted stocking comprising plain knitted foot and leg portions and a knitted top portion having front and back knitting faces and one or more ornamental cut pile threads extending from the said back knitting face of said top portion, each of said threads extending walewise of said top.

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