June 27, 1933. J. KUGELMAN 1,915,792

STOCKING TOE FABRIC

Filed April 21, 1932

Fig. 1.

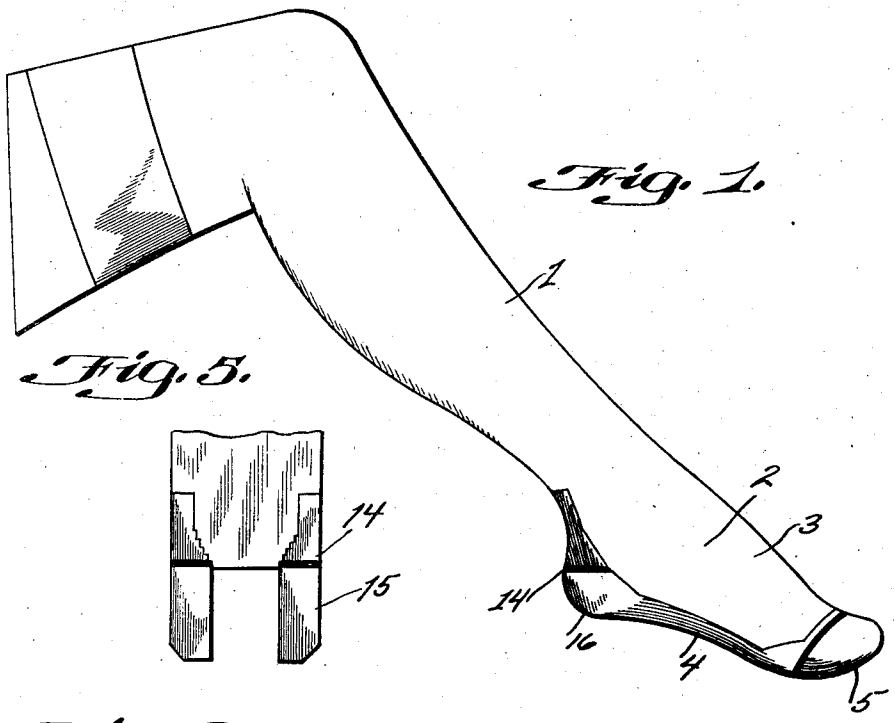


Fig. 5.

Fig. 2.

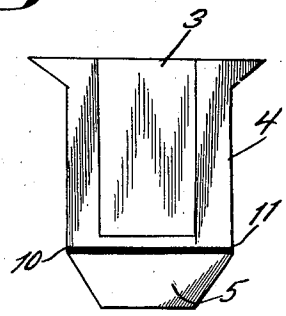


Fig. 3.

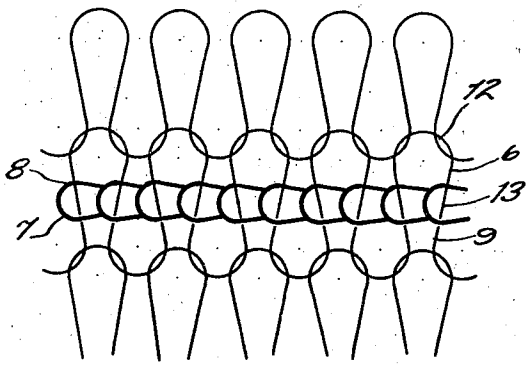
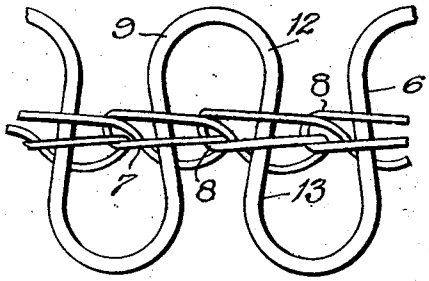


Fig. 4.



INVENTOR.
Jack Kugelman
BY Wm. P. Smith
ATTORNEY.

Patented June 27, 1933 1,915,792

UNITED STATES PATENT OFFICE

JACK KUGELMAN, OF ELKINS PARK, PENNSYLVANIA

STOCKING TOE FABRIC

Application filed April 21, 1932. Serial No. 606,621.

This invention relates to a stocking toe fabric incorporating an independent locking stitch that will prevent "run backs" in the fabric when certain knitted loops of the toe fabric are ruptured or severed in the use thereof.

An object of the invention is to provide a separate independent sewing machine stitch along one knitted course of the toe fabric to interlock the loops of said course to prevent the passage thereby of "runs" formed in the toe fabric.

My invention is also distinguished in the size, numerical relation and arrangement of the loops of the locking stitch in relation to the loops of the toe fabric course so as to assure interlocking of each loop of the toe fabric course.

My invention is also distinguished in the use of a locking stitch that is separate and distinct from the thread or stitch used in the construction of the toe fabric.

With these and other objects in view the invention will be better understood from the following detail description taken in connection with the accompanying drawing wherein:

Figure 1 is a side elevation of a stocking constructed in accordance with my invention.

Figure 2 is a plan view of the foot blank or section.

Figure 3 is a diagrammatic view of the knitting.

Figure 4 is an enlarged perspective view of one of the toe fabric loops associated with a portion of the locking stitch.

Figure 5 is a detail view of a portion of a leg blank fabric showing my locking stitch arrangement in the heel tabs.

Referring to the drawing in detail, the numeral 1 designates a knitted stocking preferably of the full fashioned type, having a foot section 2 knitted in the usual manner on a flat full fashion knitting machine to have an instep fabric 3, a reinforced sole fabric 4 and a reinforced toe fabric 5. I wish it to be understood that in some cases, such as the current demand for sandal feet, the toe fabric 5 may be of sheer construction thereby adding to the advantages and utility of my improved toe stitch feature now to be described.

One knitted course 6 of the toe fabric as shown in Figure 3 has sewed therealong, such as by a sewing machine, a locking stitch 7. This locking stitch 7 is formed from a thread separate from the yarn or thread used in the knitting of the toe fabric. This locking stitch 7 in the sewing thereof provides a plurality of interconnected loops 8 which interlock with the loops 9 of the course 6, the thread extending entirely across the toe fabric from selvage edge 10 to selvage edge 11.

Referring to Figure 3 it will be noted that the loops 8 of the locking stitch have a definite numerical relation with the loops 9 and are arranged in a definite position in relation to the loops 9, that is to say, each loop 9 consisting of the eye portion 12 and limbs 13 interlocked in a novel manner with the loops of the locking stitch. As shown in Figures 3 and 4, the size, arrangement and number of loops are such that a loop of the locking stitch is provided for each limb 13 of the loops 9, so that each limb 13 of each loop 9 is engaged and locked by a loop of the locking stitch thereby positively preventing "runs" from moving back from the toe patch or "runs" extending from the leg of the stocking down into the toe patch. To provide the locking stitch with loop formations and interlocking the same with the limbs of the toe fabric loops, as illustrated, is a very important feature of my invention and was only developed through extensive experiments conducted.

For instance, as an example of difficulties experienced in the development of a desired type of locking stitch, it may be stated that an ordinary sewing machine stitch sewed across the toe fabric will not accomplish desired results due to the fact that the same does not have the proper elasticity and further will not properly interlock with each loop of a single course in the toe fabric. In other words, it is very important that the number of loops in a linear inch of the locking stitch 7 have a definite numerical relation with the gage of the knitted stocking so as to assure proper interlocking engagement between the

locking stitch and each individual loop of the toe fabric.

I am aware of transferred stitch formations for providing barriers to prevent "runs" in stockings but such a construction only prevents a run extending downwardly in a stocking and will not prevent a run from extending upwardly in a stocking fabric, whereas, my form of stitch stops a runs moving in either direction and when used in a toe patch will positively prevent a run extending up the stocking as this is usually the case in a toe patch due to the cutting of the ends of the toe of the stocking by the toes of the user.

In Figure 5 I have shown a locking stitch 14 in each of the heel tabs 15 so that when the heel 16 of the stocking is completed, runs forming in the heel will be prevented from extending upwardly in the leg of the stocking.

Having described my invention, what I claim is:

As a new article of manufacture, a knitted stocking having a toe fabric of courses of plain knitted loops and a locking stitch consisting of a separate thread sewed along the entire length of a single course of loops of the toe fabric and providing a single stitch loop for each limb of each plain loop in the said course, said stitch loop completely embracing the limb of the plain loop and all of the stitch loops cooperating with all of the limbs of all of the plain loops of the single course to prevent runs in the toe fabric from extending in either direction walewise of the toe fabric.

In testimony whereof I have signed this specification this 12 day of April, 1932.

JACK KUGELMAN.