

June 5, 1945.

J. L. GETAZ

2,377,490

METHOD OF FEEDING ELASTIC THREAD IN KNITTED FABRICS

Filed April 7, 1944

5 Sheets-Sheet 1

Fig. 1.

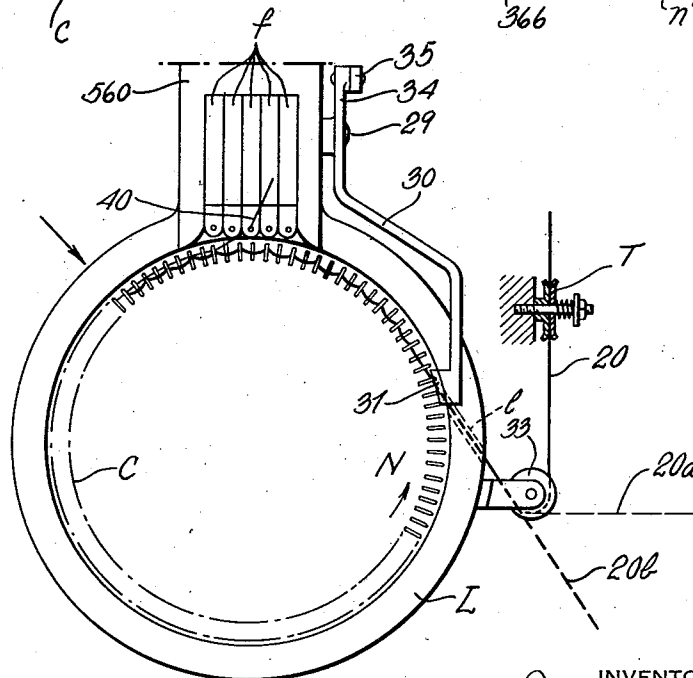
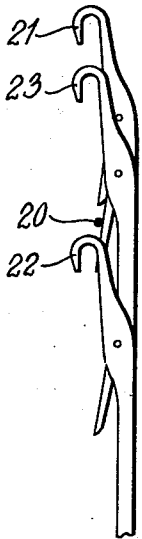
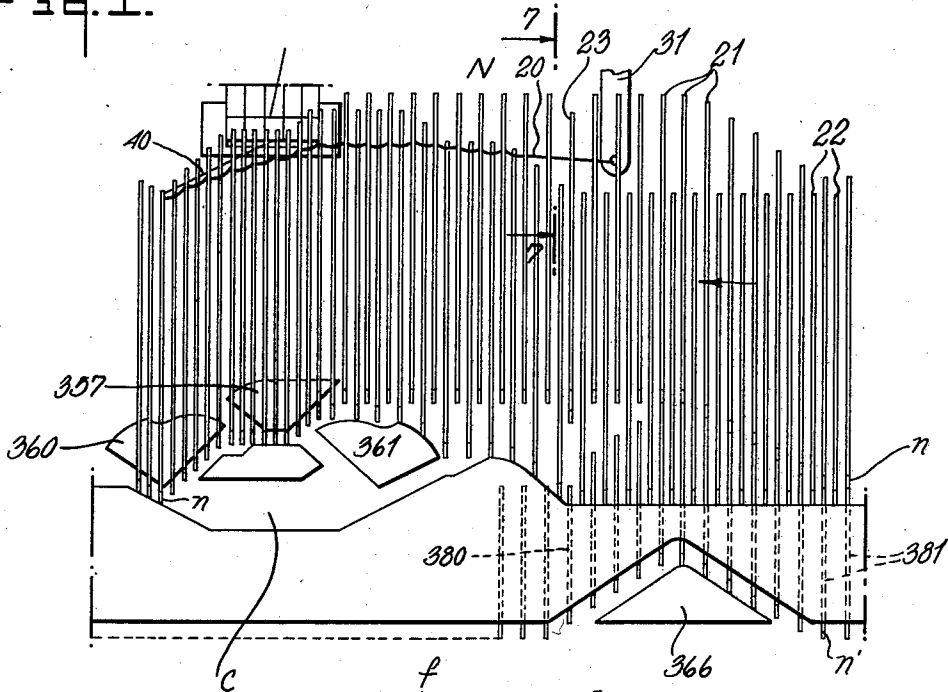


Fig. 2.

Fig. 2.

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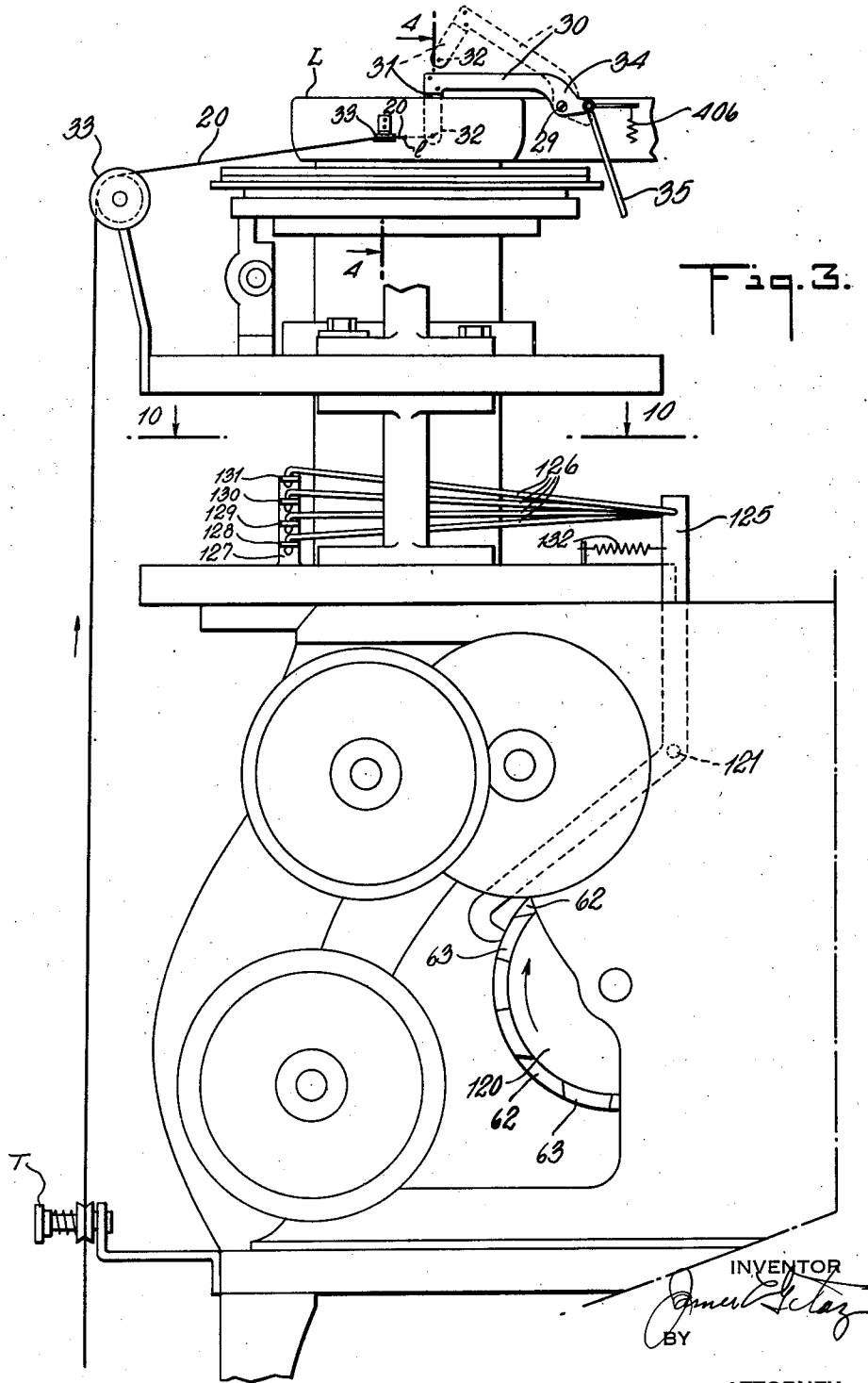
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METHOD OF FEEDING ELASTIC THREAD IN KNITTED FABRICS

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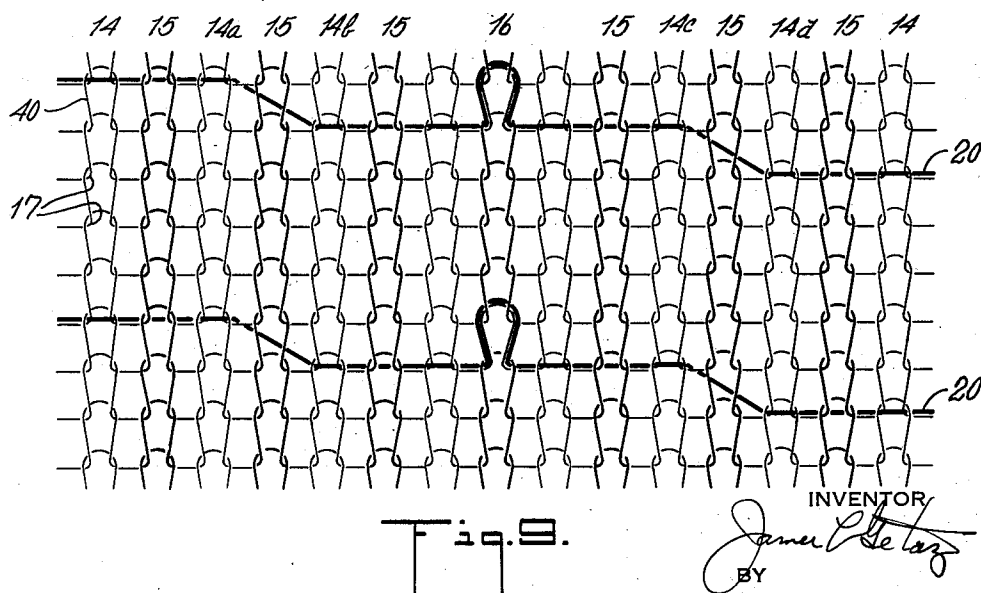
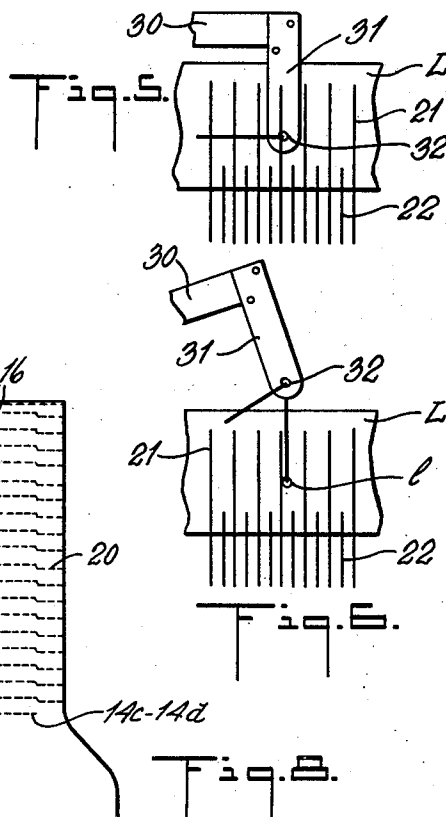
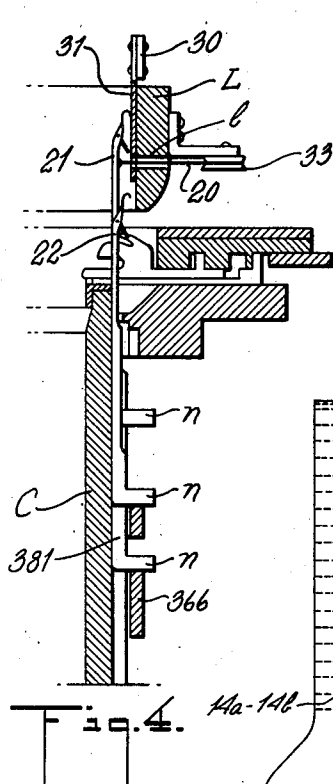
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METHOD OF FEEDING ELASTIC THREAD IN KNITTED FABRICS

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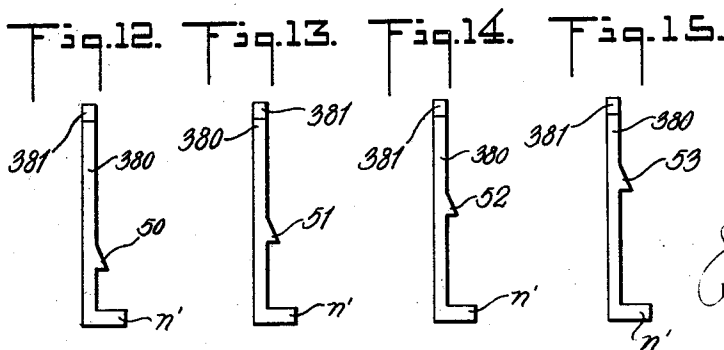
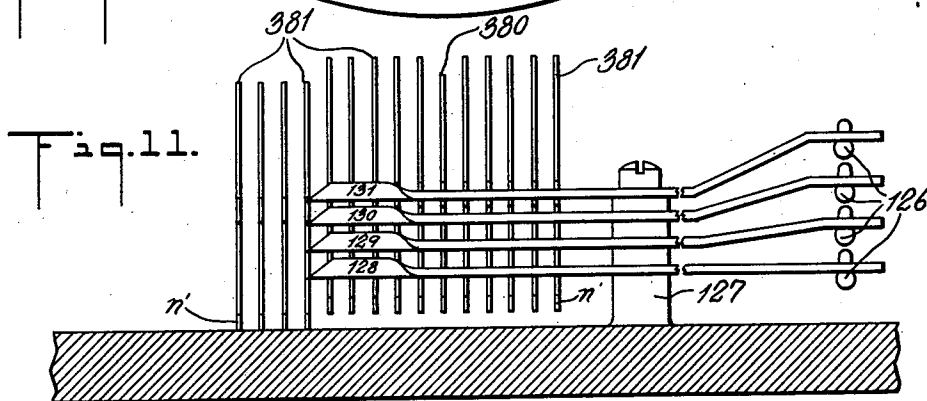
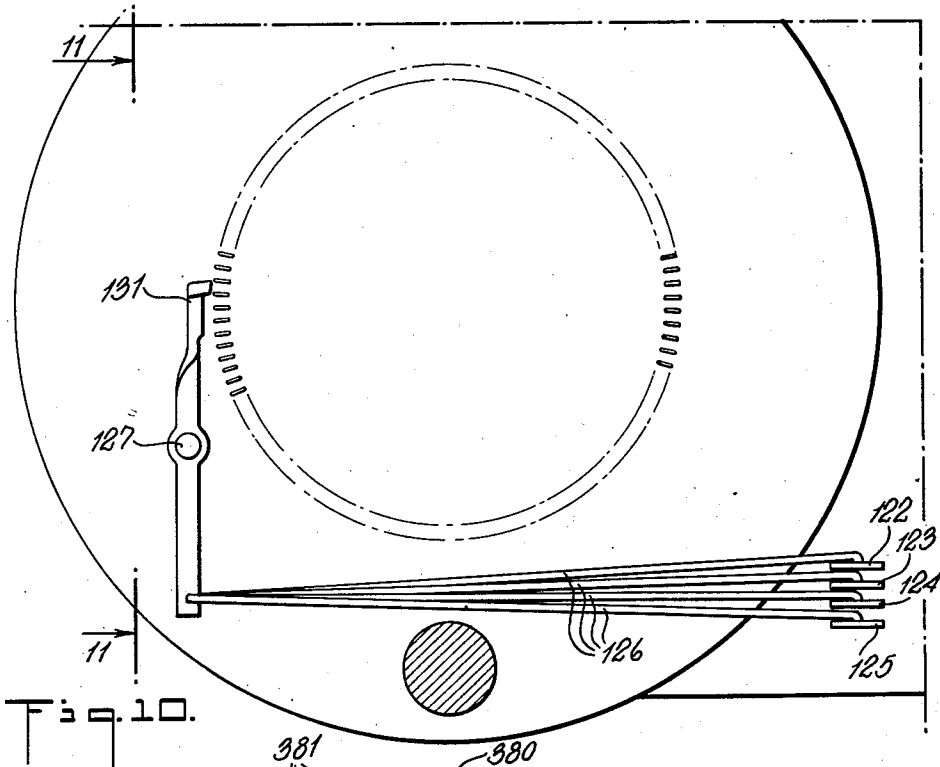
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METHOD OF FEEDING ELASTIC THREAD IN KNITTED FABRICS

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5 Sheets-Sheet 4



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METHOD OF FEEDING ELASTIC THREAD IN KNITTED FABRICS

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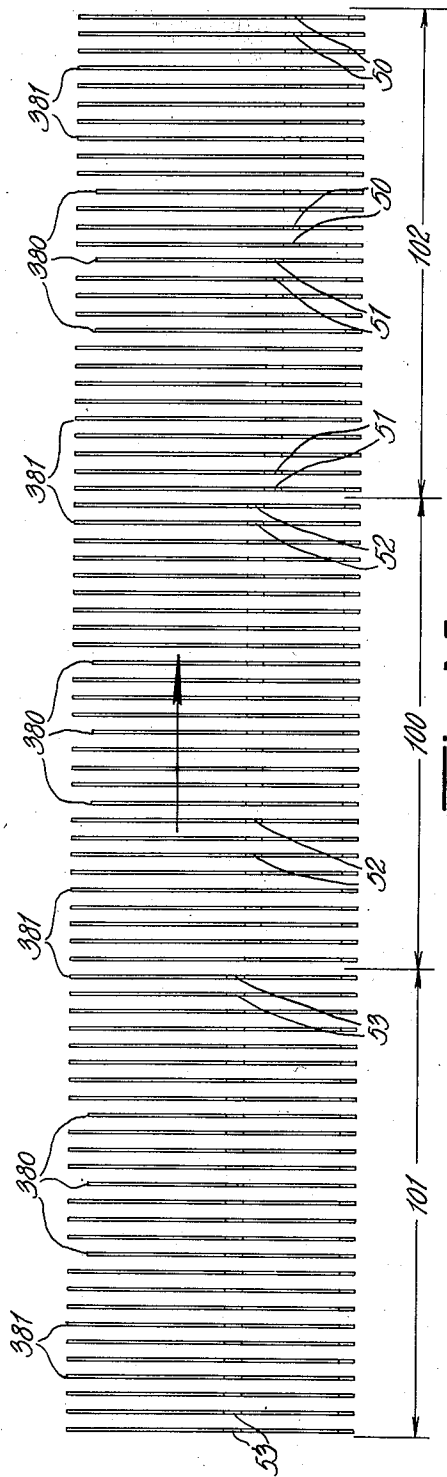


Fig. 11E.

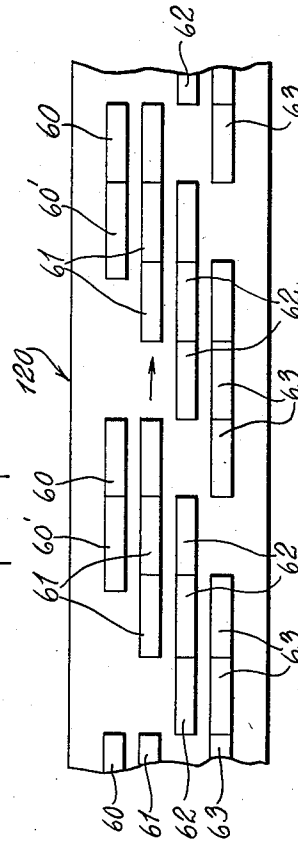


Fig. 12.

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UNITED STATES PATENT OFFICE

2,377,490

METHOD OF FEEDING ELASTIC THREAD
IN KNITTED FABRICS

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Application April 7, 1944, Serial No. 529,913

8 Claims. (Cl. 66—9)

This invention is related to elastic knitted fabrics, particularly to elastic plain knit tops for hosiery. This application is a continuation in part of my co-pending application No. 524,018, which was filed on February 20, 1944.

This invention is an improvement on the method of incorporating elastic thread in the plain knit tops of hosiery as shown in my U. S. patents, 2,230,402, 2,230,403, 2,168,869 and 2,161,250. In using elastic thread in these knitted tops, it is desirable, in order to save the cost of elastic thread, to not use the elastic thread throughout each course of the knitted fabric, but to use the elastic thread in certain courses and omit this elastic thread from intervening courses, and by constructing the tops in this way important economy is obtained in the construction of these knitted fabrics.

In incorporating this elastic thread in spaced courses, it has been customary to extend the elastic thread longitudinally from one spaced course to another, across the intervening courses, as shown in Fig. 10 of my Patent No. 2,230,402. When the fabric is knitted, it is as shown in this Fig. 10, but when the elastic thread is allowed to assume its normal position in the fabric, it forms a straight line and distorts the shape and relative positions of the courses and wales of the knitted fabric at those points at which the elastic thread passes from one spaced course to another.

In order to make these distorted portions of the fabric less conspicuous, it is customary to so time the movement of the parts of the knitting machines which control the placing of the elastic thread, that these distorted portions of the fabric are placed in the center of the back of the hose.

It is the purpose of this invention to provide a method of incorporating the elastic thread in plain knit tops, so as to obtain the same economy which is now obtained by putting the elastic thread only in spaced courses and to avoid the distortion of the knitted fabric, which is caused by extending the elastic thread across intervening courses. This is accomplished by incorporating the elastic thread in only a portion of each successive course of the knitted fabric, and extending the elastic thread from one course to the next, without any courses intervening. This method of incorporating the elastic thread in plain fabric produces a placing of the elastic thread in plain fabric, which is similar to that shown for ribbed fabric in my Patent No. 2,228,208.

In the accompanying drawings:

Figure 1 is a diagrammatic development of

the knitting wave and knitting cams of a circular knitting machine embodying my invention, showing how the two yarns, the elastic yarn and the body thread, are fed to the needles.

5 Figure 2 is a plan view corresponding to Figure 1 showing the needle circle, and illustrating the manner in which the body thread and the elastic thread are fed to the needles, the small arrow indicating the knocking-over point.

10 Figure 3 is a side elevation of the parts indicated in Figure 2, showing the auxiliary thread feeding-finger for the elastic thread in operative and inoperative positions, and showing a side elevation of the knitting machine.

15 Figure 4 is a vertical section on the line 4—4 of Figure 3.

Figure 5 is a detail view of portions of the latch ring and auxiliary thread feeding finger, the latter being shown in operative position.

20 Figure 6 is a similar view to Figure 5 showing the inoperative position of the auxiliary feeding-finger.

Figure 7 is a section on line 7—7 of Figure 1 showing the elevation of the needles with reference to the elastic thread.

25 Figure 8 is a view of the top of a stocking made according to this invention, and with an elastic selvage, as shown in my patents, 2,054,217 and 2,334,350.

30 Figure 9 is an enlarged view of the fabric shown in Figure 8, in reversed position, the stitches in the bottom of this figure being knitted first.

35 Figure 10 is a section along line 10—10 of Figure 3, showing mechanism for selecting needles.

Figure 11 is a section along line 11—11 of Figure 10, showing part of the mechanism for selecting the needles.

40 Figures 12, 13, 14 and 15 show the different jacks used in selecting needles in different portions of the circumference of the knitting machine.

Figure 16 is a development of these selective jacks as they appear around the cylinder.

45 Figure 17 is a development of part of the pattern drum which is used in selecting the needles.

My invention finds its greatest use in carrying out the invention disclosed in my Patent 2,230,402, above referred to, wherein the top portion of a stocking is knit by plain knitting and an elastic thread of rubber, or the well known Lastex, is interlaced with the needles and incorporated in the fabric in the first course to

form an elastic selvage, and thereafter in spaced courses throughout a portion of a sock or stocking, to produce a form-fitting and self-supporting tubular portion, usually the top of a sock or hose, which has for many years been formed of rib knitting, although it is to be understood that my invention is equally applicable to any other kind of hosiery and may be employed also for the purpose of introducing an inelastic thread, if that should be desirable. I, therefore, make no claim herein for the product disclosed in my said Patent 2,230,402.

Any circular knitting machine having cylinder needles with selectivity as between successive needles can be adapted to make this sock or stocking. Thus, the well known Scott & Williams type of revolving needle cylinder machine, such as shown for example in the United States Letters Patent to Robert W. Scott, No. 1,152,850, dated September 7, 1915, can be adapted to carry my present invention into effect, by the addition of the mechanism hereinafter described, for feeding the elastic thread and by properly adjusting the various cams.

In the drawings, the needle cylinder is indicated at C, and is provided with a circular series of needles, N, the upper ends of which, extending from the point of pivoting of the latch to the hook portion, are inclined forwardly with respect to the shank of the needles. Such needles can be obtained, and any of the so-called forward hook needles can be advantageously employed for this purpose. Each needle is provided with a butt n' , adapted to engage the knitting cams, indicated at 360, 357 and 361, respectively, in the usual manner to effect the drawing of stitches by the hooks of the needles. Selected needles, in this case every alternate needle, are provided with a vertically disposed needle jack, indicated at 381, and 380. These jacks are provided with butts n' , adapted to engage a selecting cam 366, located in advance of the throat, for the purpose of raising the alternate needles, which are designated by the numbers 21 and 23, above the intervening needles, indicated by the numeral 22, at a point before the needles reach the throat. The throat is indicated at 560 in Fig. 2, and is provided with one or more thread feeding-fingers f , in the usual manner.

L represents a latch ring, shown in section in Fig. 4, which is provided with a delivery eye 1, located in advance of the throat, through which the thread to be interlaced with the needles, and which in this instance is the elastic thread of rubber or Lastex, indicated at 20, may be delivered through the delivery eye of an auxiliary feeding-finger, hereinafter described, so as to pass in a line, approximately tangential to the circle of needles, and without sharp turns, to avoid placing any unnecessary friction on the thread. As shown herein the delivery eye 1 in the latch ring L, extends through the latch ring angularly to a radius of the ring, and substantially tangential to the circle of the needle series. 30 represents the auxiliary thread feeding-finger, which is preferably pivotally mounted on some stationary part of the machine. It is here shown secured by a horizontal pivot 29, to one side of the throat 560, but it may be secured at any desired part. The thread feeding-finger 30 is provided at its outer end with a downwardly extending plate portion 31, which in its operative position lies against the inner face of the latch ring L, as shown in Fig. 4, and is provided with a delivery eye, 32 at its lower end, adapted to regis-

ter with the delivery eye 1 in the latch ring, and form a continuation thereof, so that the auxiliary thread 20 can pass freely through the registering delivery eyes 1 and 32, with an avoidance of sharp turns, as clearly shown in Fig. 2. The auxiliary thread, in this case the elastic thread 20, will be delivered from the supply spool in such a manner as to pass into the delivery eye of the latch ring in as nearly a straight line longitudinally thereof as practicable, and if found necessary or desirable, the latch ring, or some adjacent portion of the machine, may be provided with a grooved roller, indicated at 33, for this purpose, the thread, 20, passing to the roller as shown in full lines in Fig. 2, or otherwise, as indicated in one or other of the dotted lines, 20a and 20b, according to the direction in which it comes from the spool. It will be understood that before passing through the registering eyes 1 and 32, the elastic thread passes through a suitable tensioning device, indicated diagrammatically at T in Fig. 2, of any desired character. The auxiliary thread feeding-finger 30 will be provided with suitable means for automatically throwing it into and out of operation. In this instance it is shown provided with an arm 34, extending rearwardly of its point of pivoting and connected with a rod or link 35, operated by suitable cam (not shown) for moving it from the operative position, shown in full lines in Figs. 3 and 5, to the inoperative position, shown in dotted lines in Fig. 3, and in full lines in Fig. 6. As indicated in the latter figure, when the feed-finger is moved to its inoperative position, it will lift the thread 20 out of a position in which it can be interlaced with the needles, in the manner previously described, and hold it until the auxiliary thread guide 30 is restored to its operative position. The knitting machine will also preferably be provided with a clamp and cutter of any desired form and operating in any suitable manner for holding the elastic thread when the auxiliary thread guide 30 is moved to inoperative position, and for severing it after the elastic thread has been fed to all of the courses desired in the stocking which is being knit. These parts are well known and are not herein shown. The body thread, which is fed to the hooks of all the needles, is indicated at 40 in Figs. 1 and 2, and is fed to the needles by one of the ordinary feeding-fingers f located at the throat.

Assuming that the auxiliary thread guide 30 is in its operative position, and the elastic thread is supplied under desired tension to the registering delivery eyes 1 and 32, and that the machine is in operation, the butts n' of the needle jacks 381 and 380, when selected, as hereinafter described will engage the cam 366 and elevate alternate needles, as indicated at 21 and 23 in Fig. 1 for example, sufficiently high to receive the elastic thread 20. The intervening needles 22 will not be elevated and will pass below the registering delivery eyes 1 and 32, and will not receive the elastic thread. As soon as the elastic thread 20 has been fed on the forward side of the needles 21 below their latches, and to needles 23 above their latches, the butts of the intervening needles will engage the cam mechanism of the machine and the intervening needles will be raised to substantially the level of the needles 23. As the needles 22 rise with respect to the needles 21 and 23, the forwardly bent hook portions of the needles 22 will pass in front of the elastic thread 20, as clearly shown in Fig. 7. The latch ring L is of sufficient depth so that it extends be-

low the latches of the needles 21, and any frictional engagement between the rising needles 22 and the elastic thread 20 will not have the effect of closing the latches of the adjacent needles 21, which will be held from upward movement by engagement with the inner face of the latch ring. As the needles pass the throat, the thread guide *f* thereof will feed the main knitting thread, or body thread 40 to the hooks of all the needles, which will thereafter be drawn down by the knitting cams in the usual manner to form a course of plain knit stitches, the loops of the inelastic body thread 40 being drawn on opposite sides of the elastic thread in incorporating it in the fabric, in the manner fully described in my Patent 2,054,217.

When the top portion of the hosiery, as shown in Fig. 8, is completed, or whatever portion of the knitted fabric which contains the elastic thread is completed, the auxiliary feeding finger 30 is drawn into inoperative position.

A stocking may be set up on bare needles and the rubber thread 30 interlaced with the needles, in the manner described, and incorporated within the loops of the first course of stitches, which will be drawn, as before stated, on opposite sides of the rubber thread, thus forming a complete single thickness, non-ravel edge or selvege, in the manner disclosed in my patents, 2,230,402, 2,054,217 and 2,334,350. After making this selvege or non-ravel edge, the knitting of plain knit courses will continue and the elastic thread 20 can be incorporated in courses at desired intervals.

In the accompanying drawings are shown preferred means for controlling the intervals at which the elastic thread is incorporated in the fabric, and this is accomplished by successively selecting needles in portions of the circumference of the cylinder C. The selection of these needles follows in sequence around the cylinder until needles in all portions of the circumference are selected. As shown in Fig. 16, if the needles in portion 100 are first selected after the selvege is knitted, the elastic thread is fed to the needles 21 and 23 in this portion of the circumference. These needles are selected by the jacks 380 and 381 respectively, by selective mechanism described below. After the elastic thread is fed to the selected needles in portions 100, it is floated around the circumference of the cylinder C, while a course of the body thread 40 is being knitted. Then as the portions of the cylinder 101 approaches the eyelet 32, from which the elastic thread is being fed, selected needles 21 and 23 in portion 101 are raised by jacks 381 and 380 and the elastic thread is fed to these selected needles. After the elastic thread is fed to all of the selected needles in portion 101, it is floated around the circumference of cylinder C, while a course of the body thread 40 is being knitted. Then as portion 102 approaches the eyelet 32, from which the elastic thread is fed, selected needles 21 and 23 in portion 102 are raised by jacks 381 and 380, and the elastic thread is fed to selected needles 21 and 23 in this portion of the cylinder. As these three portions constitute the entire circumference of the cylinder, the elastic thread is again floated around the cylinder and is fed to the selected needles in portion 100.

While in the accompanying drawings the cylinder is divided into three portions, it is apparent, that it may be divided into any number of portions, by proper designing of the selective mechanism and that the elastic thread may be

incorporated in the fabric in one of these portions of the circumference for each course that is knitted by the body thread 40.

To select the needles so that those in each group will be raised consecutively to the proper height, to receive the elastic thread, use is made of the jacks 381 and 380. These jacks are provided with butts *n'*, as mentioned above, which are raised by cam 366. When the jacks are so raised that these butts *n'* engage cam 366, the needles above them are raised to the height of needles 21 and 23 and receive the elastic thread. If these jacks 381 and 380 are not raised so that the butts *n'* engage cam 366, then the butts *n'* pass under cam 366, and the needles which are in contact with these jacks pass below the elastic thread at the level of needles 22, as shown in Fig. 1.

In order to raise these jacks so that the butts *n'* will engage cam 366, the jacks are provided with projections 50, 51, 52 and 53, as shown in Figures 12, 13, 14 and 15. Those jacks 381 and 380 in portion 102 are divided, part having projection 50 and the remainder projection 51. Those in portion 100 have projection 52, and those in portion 101, projection 53. The levers 128, 129, 130 and 131 are mounted on stud 127 on the bed of the machine at such levels that one of each of these levers will raise all of these jacks having a certain projection and raise it high enough so that the butt *n'* will be raised further by cam 366. If lever 131 is pressed into the cylinder, it will raise all the jacks having projection 53 in portion 101 in like manner, so lever 130 will raise the jacks in portion 100 having projection 52. Lever 129 will raise those jacks in portion 102 which have projection 51, and lever 128 will raise those having projection 50. These levers 128, 129, 130 and 131 are connected by rods 126 to levers 122, 123, 124 and 125 respectively, which are held by springs 132 and are mounted on pivot 121 and are operated by cams 60, 61, 62 and 63 on the pattern drum 120. This drum 120 is rotated by an amount equal to the spacing of these cams with each rotation of the cylinder with a ratchet and pawl. The mechanism for moving the pattern drum is well known and is not shown herein.

During one revolution of the cylinder C, levers 122, 123 and 125 are held on cams 60, 61 and 63 of the pattern drum, which are shown in Fig. 17 and lever 124 is pulled by spring 132, so that lever 130 is pressed against the cylinder C and the jacks in portion 100 with projections 52 are raised to engage cam 366, which causes the needles in portion 100 to receive the elastic thread 20. On the next revolution of cylinder C, the pattern drum 120 has moved one notch, the levers 122, 123 and 124 are on cams 60', 61 and 62 and lever 125 is pulled by spring 132 so that lever 131 is pressed against the cylinder C and the needles in portion 101 are raised to receive the elastic thread.

Cam 60', as shown in Fig. 17, is made longer than the other cams, so that on the next move of the pattern drum lever 122 will drop off cam 60' later and lever 128 will be pressed against the cylinder C in portion 102 just after the jacks having projection 50 have passed lever 128. On the next rotation of the cylinder, levers 124 and 125 are on cams 162 and 63 and levers 122 and 123 are pulled by springs 132, so that levers 128 and 129 are pressed against the cylinder and the jacks in portion 102 with projections 50 and 51 are raised to engage cam 366, which causes the

needles in portion 102 to receive the elastic thread.

Where I have stated herein that the elastic thread is fed to alternate needles below the latches thereof, it is to be understood that this includes the feeding of the elastic thread upon the latches thereof and then raising these needles to cause the elastic thread to pass below the latches, before the intervening needles are raised in front of the elastic thread.

In incorporating elastic thread in plain knit fabric, there are two well known methods. In one of these methods, the elastic thread is fed below the latches of selected needles, as shown for needles 21, and is not knitted in the fabric but is caught by the sinker wales on each side of the selected needles as the elastic thread is shed over the hooks of these needles. If these selected needles are alternate needles, and there is sufficient tension in the elastic thread, a smooth fabric is produced, as shown in my Patent 2,230,402. This fabric imitates a 1 and 1 ribbed fabric, as alternate wales form the face of the fabric and the intervening wales form the inner face of the fabric.

If it is desired to incorporate the elastic thread unknit in the fabric, the longer jacks 381 may be used under all of the selected needles, so that these needles are raised to the height of needles 21 as shown in Figure 7, and the elastic thread is fed below the latches.

In the other method for incorporating elastic thread in plain fabric, the elastic thread is fed above the latches of selected needles, as shown for needles 23, and behind intervening needles, and is knitted into the fabric with the body thread in those wales which are knitted by the selected needles. When the elastic thread is knitted into this fabric in this manner, every fourth needle is generally selected for receiving the elastic thread, and the contraction of the elastic thread forms vertical ridges in the finished fabric, in which the wales knitted by the selected needles lie on the inner face of the fabric, and the three intervening wales form the ridges on the face of the fabric.

If it is desired to knit the elastic thread in the fabric, the shorter jacks 380 may be used under all of the selected needles, raising them to the height of needles 23, so that the elastic thread will be fed above the latches.

This invention, which provides a method of incorporating the elastic thread in plain fabrics, is equally applicable to each of the fabrics mentioned above. In this invention, the elastic thread is in only a portion of each course, whether the elastic thread is laid in below the latches of selected needles, or if it is knitted by these needles. Or this invention may be used when both of these methods are combined in the same fabric, as shown in the accompanying drawings.

In some of the wales the elastic thread is knitted in the fabric and in other wales the elastic thread is unknit, being held in the fabric by the sinker wales.

In the fabric, as shown in Figure 9, the wales 15 in heavy lines form the face of the fabric, when the elastic thread is allowed to contract under sufficient tension, as shown in my Patent No. 2,230,402, while the wales 14 shown in lighter lines form the inner face of the fabric. The wales 15 are knitted by the needles 21, which are raised to a higher level by cam 366, as shown in Figure 1. The elastic thread is fed in front of these needles below the latches, as shown in Fig-

ure 7. The wales 14 are knitted by the intervening needles 22. Between wales 14a and 14b, and between wales 14c and 14d, the elastic thread 20 is withdrawn from the fabric for one revolution of the knitting cylinder and floats around the needle circle as the cylinder revolves. This elastic thread 20 is withdrawn from the fabric by the selective action of the knitting needles. The selected needles which are in only one portion of the circumference engage the elastic thread during one course of knitting.

When the elastic thread 20 is laid below the latches of the needles 21, as shown in Figures 1 and 7, the plain smooth fabric of my Patent No. 2,230,402 may be produced, but the elastic thread has a tendency to slip between the sinker wales 17 and the loops of the body thread 40. This is especially true after the fabric becomes worn and breaks occur in the elastic thread. This slippage of the elastic thread causes the top to lose its shape and elastic properties. This defect may be reduced by knitting loops of the elastic thread at selected points around the circumference of the knitted fabric.

As shown in Figure 9, in the wales 16, loops are drawn of the elastic thread 20 by needle 23, which is raised to a lower level by cam 366, as the jack 380, which is under this needle 23, is shorter than the jacks 381, which are under needles 21. This needle 23 receives the elastic thread 20 above the latch, as shown in Figure 7. While only one of these wales, which are knitted by needles 23, is shown, there may be several of them on the circumference of the needle circle, as shown by the jacks 380 in Fig. 16, and by knitting certain wales as wale 16, the slippage of broken elastic threads may be reduced.

In Figure 8, there is shown in dotted lines the elastic thread 20 as it is incorporated according to this invention in the top of a knitted stocking. The elastic thread 20 is in part of each course, and is knitted into the fabric at wale 16. As the elastic thread passes from one course to the next succeeding course without passing across any intervening courses, the fabric is not distorted by the elastic thread as is the case in my Patent 2,230,402.

I claim:

1. A method of incorporating an elastic thread in portions of successive courses of a circular knit fabric as said fabric is being knitted on a circular knitting machine, which comprises, selecting certain needles in a portion of the circumference of said machine, positioning said selected needles to receive said elastic thread during the knitting of one course of said fabric, operating said selected needles to incorporate said elastic thread in a portion of said course, selecting certain other needles in an adjacent portion of said circumference, positioning said other selected needles to receive said elastic thread during the knitting of an adjacent course of said fabric, operating said other selected needles to incorporate said elastic thread in an adjacent portion of said adjacent course, and repeating the selection of needles in successive portions of said circumference during the knitting of successive courses to incorporate said elastic thread progressively in successive portions of successive courses around the circumference of the fabric.

2. A method of incorporating an elastic thread in portions of successive courses of a circular knit fabric as said fabric is being knitted on a knitting machine having a circular series of needles, which comprises selecting needles in a

portion of the circumference of said machine, feeding said elastic thread to said selected needles, floating said elastic thread across the needle circle of said machine, selecting needles in another portion of said circumference, feeding said elastic thread to said selected needles in said other portion of said circumference, and repeating the floating of said elastic thread across said needle circle, selecting needles in another portion of said circumference and feeding said elastic thread to said selected needles in said other portions, to incorporate said elastic thread progressively in successive portions of successive courses around the circumference of the fabric.

3. A method of incorporating an elastic thread in portions of successive courses of a circular knit fabric, as said fabric is being knitted in a knitting machine having a circular series of needles, which comprises selecting needles in a portion of the circumference of said machine, feeding an elastic thread to said needles below the latches thereof, floating said elastic thread across the needle circle of said machine, selecting needles in another portion of said circumference, feeding said elastic thread to said selected needles in said other portion below the latches thereof, and repeating said floating of said elastic thread, selecting needles in additional portions of said circumference, and feeding said elastic thread to said selected needles in said additional portions below the latches thereof, to incorporate said elastic thread progressively in successive portions of successive courses around the circumference of the fabric.

4. A method of incorporating an elastic thread in a circular knit fabric as said fabric is being knitted on a knitting machine having a circular series of needles, which comprises selecting needles in a portion of said circumference, feeding said elastic thread in front of said selected needles and behind intervening needles in said portion of said circumference, floating said elastic thread across the needle circle of said machine, selecting needles in an additional portion of said circumference, feeding said elastic thread in front of said selected needles and behind intervening needles in said additional portion of said circumference and repeating said process of floating said elastic thread across said needle circle, selecting needles in other portions of said circumference and feeding said elastic thread to said selected needles and behind intervening needles in said other portions, to incorporate said elastic thread progressively in successive portions of successive courses around the circumference of the fabric.

5. A method of incorporating an elastic thread in a circular knit fabric as said fabric is being knitted on a knitting machine having a circular series of needles, which comprises selecting needles in a portion of the circumference of said machine, feeding said elastic thread to certain of said selected needles below the latches thereof, and to other of said selected needles above the latches thereof, floating said elastic thread across the needle circle during a full revolution of said machine, selecting needles in another portion of said circumference, feeding said elastic thread to said selected needles in said other por-

tion of said circumference, and repeating said alternate feeding and floating of said elastic thread.

6. A method of incorporating an elastic thread in a circular knit fabric as said fabric is being knitted on a knitting machine having a circular series of needles, which comprises selecting needles in a portion of the circumference of said machine, feeding said elastic thread to said selected needles during the knitting of one course of said fabric, floating said elastic thread across the needle circle of said machine, selecting needles in a consecutive portion of said circumference, feeding said elastic thread to said selected needles in said consecutive portions of said circumference during the knitting of a consecutive course of said fabric, and repeating the floating of said elastic thread across said needle circle, the selecting of needles in consecutive portions of said circumference and the feeding of said elastic thread to said selected needles in said consecutive portions of said circumference during the knitting of other consecutive courses of said fabric, to incorporate said elastic thread in successive portions of consecutive courses around the circumference of the fabric.

7. A method of incorporating an elastic thread in a circular knit fabric as said fabric is being knitted on a knitting machine having a circular series of needles, which comprises feeding said elastic thread at a thread feed located at a fixed position relative to feeding means for feeding body thread to the needles, selecting needles in a portion of the circumference of said machine, manipulating said selected needles to receive said elastic thread and incorporate it in said fabric during the knitting of a portion of a course of fabric, floating said elastic thread across the needle circle of said machine during the knitting of approximately a course of fabric, selecting needles in a successive portion of the circumference of the machine, manipulating said selected needles to receive said elastic thread and incorporate it in said fabric during the knitting of a portion of a course of fabric, floating said elastic thread across said needle circle during the knitting of approximately a course of fabric, and repeating the selection of needles in successive portions of the circumference of the machine, and the alternate incorporating and floating of said elastic thread to incorporate said elastic thread in successive portions of successive courses around the circumference of the fabric.

8. A method of incorporating an elastic thread in a circular knit fabric as said fabric is being knitted on a circular knitting machine, which comprises feeding said elastic thread at a thread feed located at a fixed position relative to feeding means for feeding body thread, maintaining said elastic thread feed continuously in feeding position during the knitting of a plurality of successive courses, and successively manipulating selected groups of needles disposed respectively in successive portions of the circumference of the machine to incorporate a continuous elastic thread in successive portions of successive courses around the circumference of the fabric.

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