June 14, 1938. F. LAMBACH 2,120,522

METHOD OF KNITTING HOSIERY

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Fig. 1.

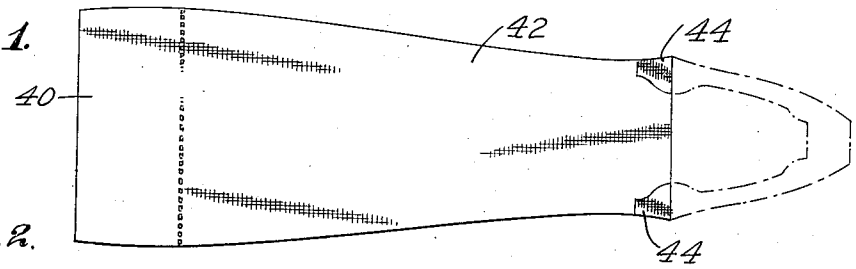


Fig. 2.

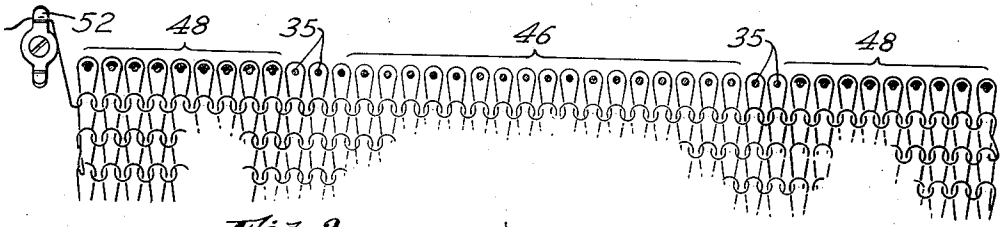


Fig. 3.

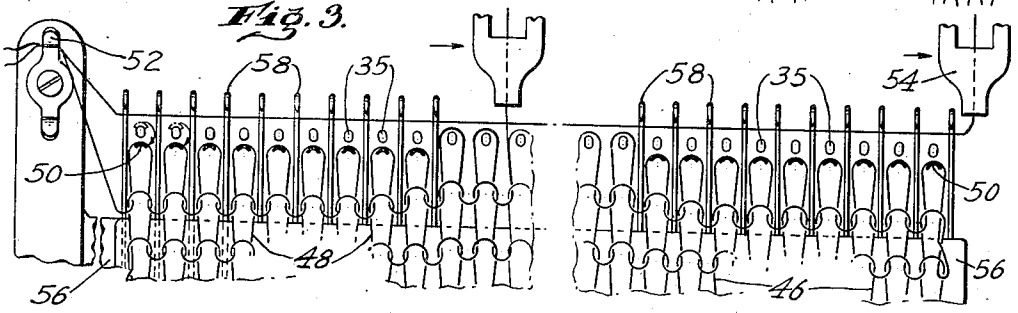


Fig. 6.

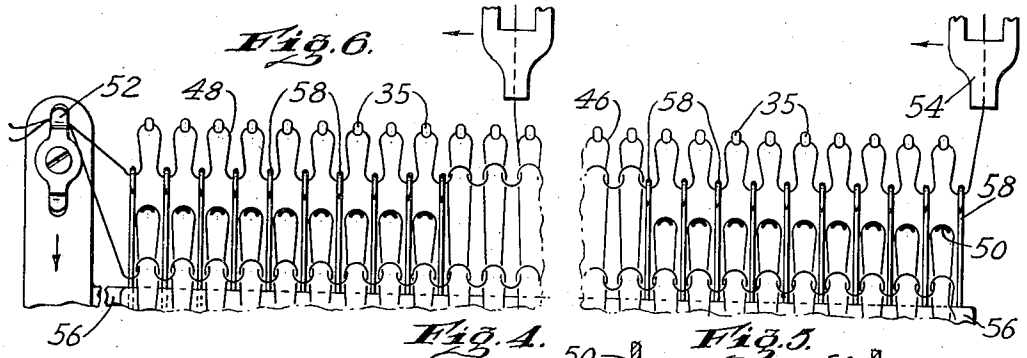


Fig. 4.

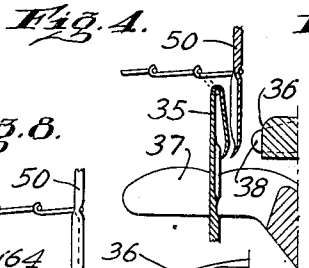


Fig. 5.

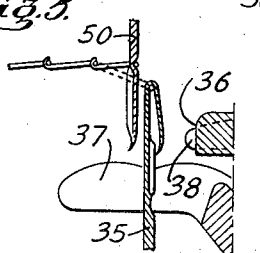


Fig. 7.

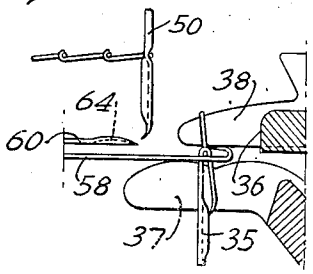
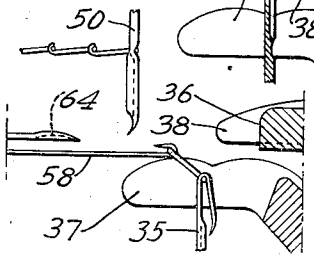


Fig. 8.



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METHOD OF KNITTING HOSIERY

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Fig. 9.

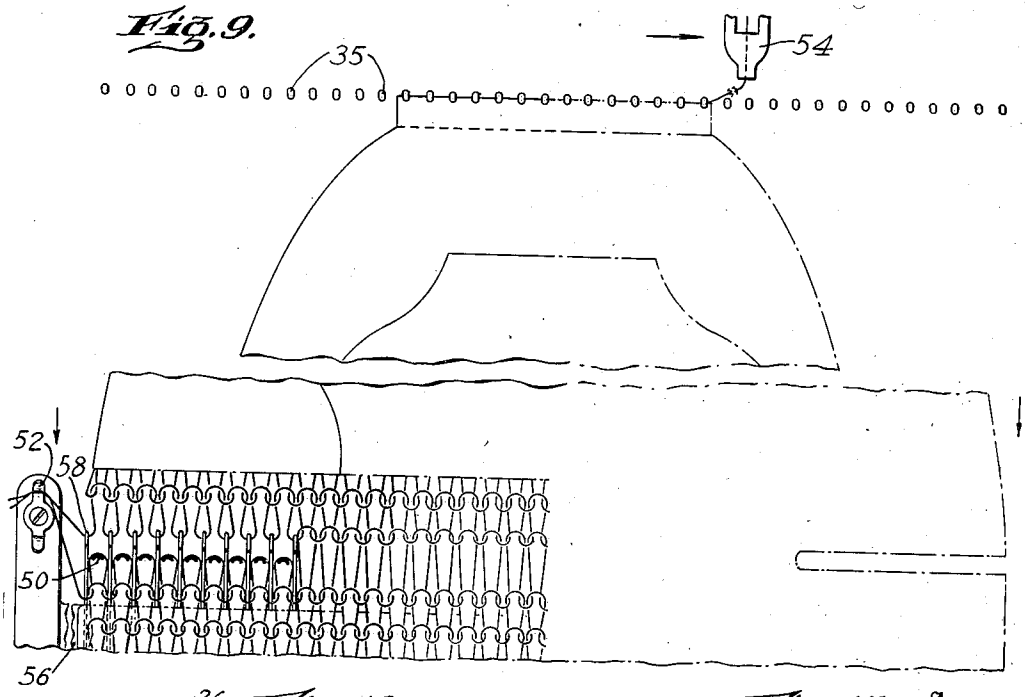


Fig. 16.

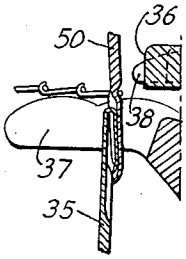


Fig. 15.

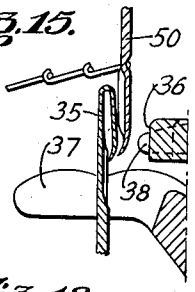


Fig. 10.

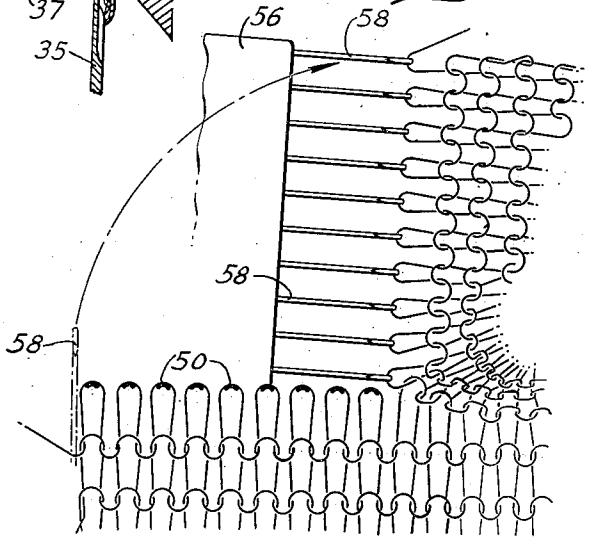
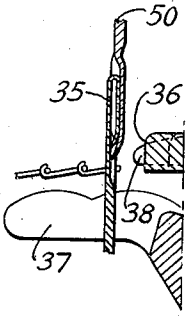


Fig. 18.



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METHOD OF KNITTING HOSIERY

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Fig. 11.

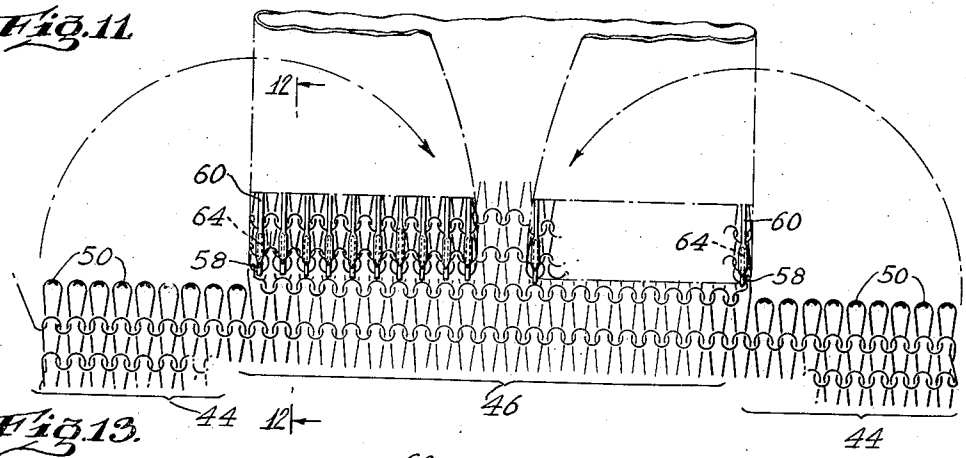


Fig. 13.

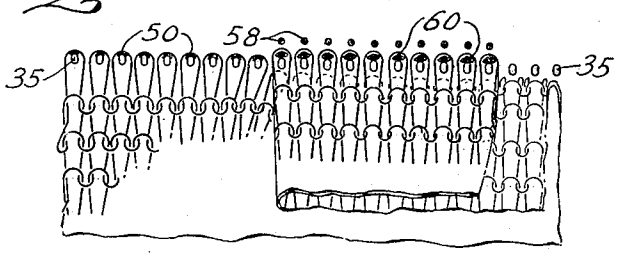


Fig. 12.

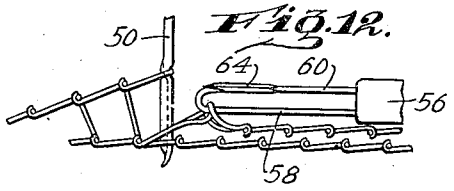


Fig. 14.

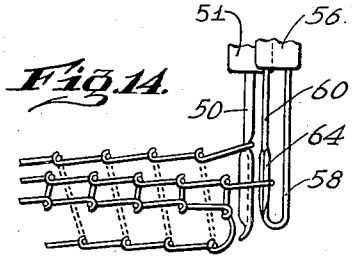
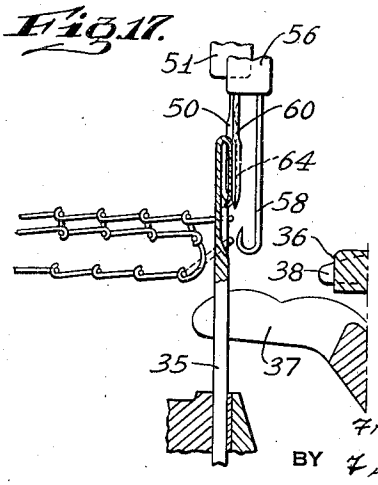


Fig. 17.



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METHOD OF KNITTING HOSIERY

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Fig. 19.

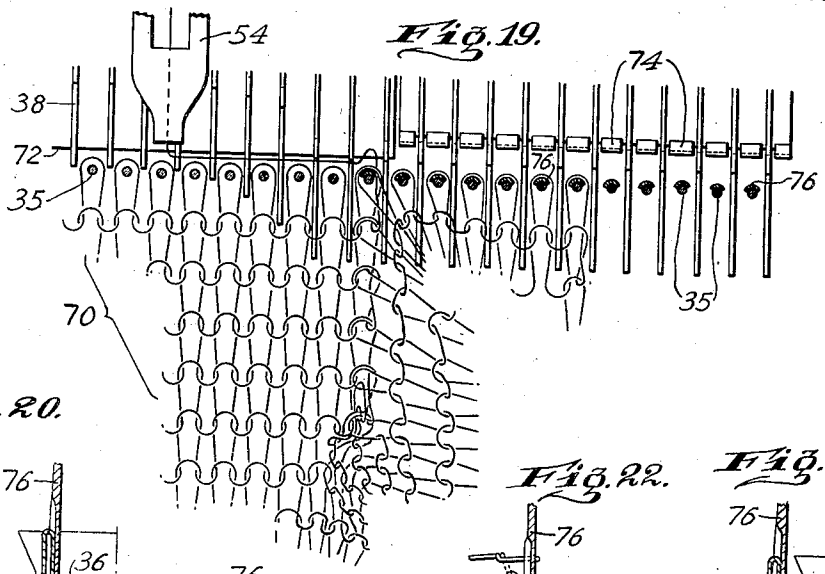


Fig. 20.

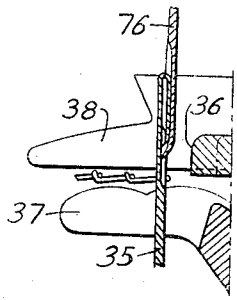


Fig. 22.

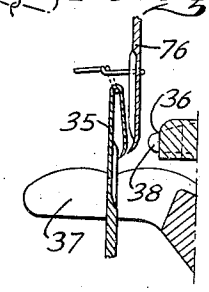


Fig. 23.

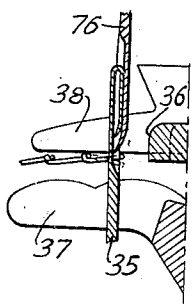
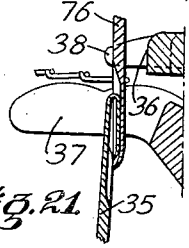


Fig. 24.

Fig. 21.



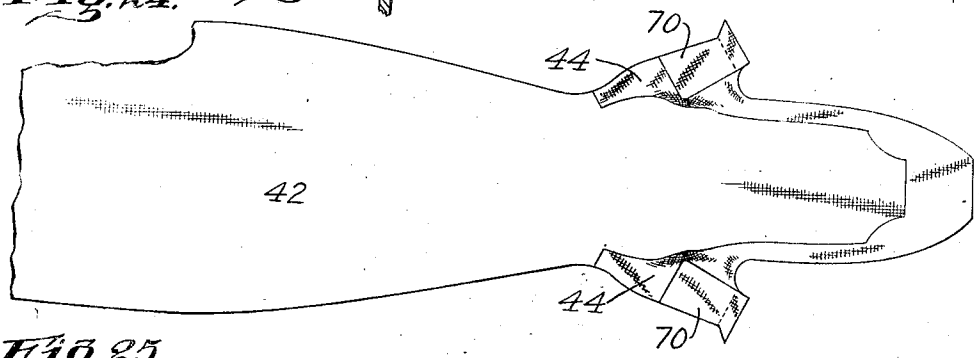
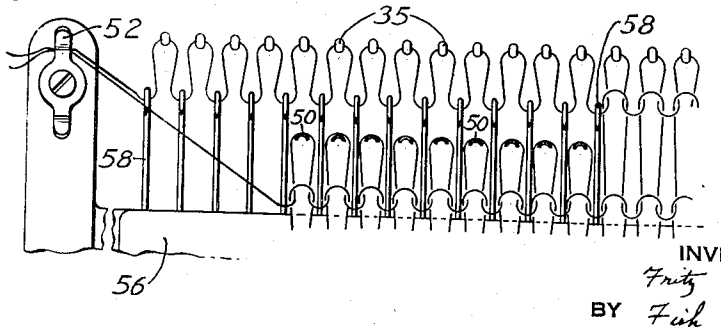


Fig. 25.



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Patented June 14, 1938

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UNITED STATES PATENT OFFICE

2,120,522

METHOD OF KNITTING HOSIERY

Fritz Lambach, Belleville, N. J., assignor to Robert Reiner, Incorporated, a corporation of New Jersey

Application June 29, 1937, Serial No. 150,987

7 Claims. (Cl. 66—82)

The present invention relates to improvements in the manufacture of knitted hosiery, and more particularly to an improved method of knitting a combination full-fashioned foot and leg stocking blank in which the foot is knitted directly onto the leg and high heel portions of the blank, and in which the heel portions are subsequently knitted into adjoining portions of the leg and foot to form the finished blank.

The method herein disclosed constitutes an improvement over the method disclosed in applicant's copending application Serial No. 110,707, filed November 13, 1936, for knitting a combination stocking blank of this general description, applicant's improved method having a number of novel steps and a novel organization of the several steps whereby certain manual operations previously required and calling for a high degree of skill on the part of the operator are wholly eliminated, and the entire operation of knitting the combination blank including the heel portions may be carried out on a single machine.

In accordance with the present invention, it is proposed after the leg portion of the stocking blank has been knitted, to remove from the needles those portions of the last course of leg fabric extending from the heel corners to the selvages, to knit a first course of foot fabric including setting-up course loops on the empty needles extending from the heel corners, and thereafter while knitting the foot portion of the blank, to support those portions of the last course of leg fabric extending from the heel corners and the setting-up loops of foot fabric in such a manner that these supported loops may be readily transferred to a needle series for the subsequent knitting of the heels thereto.

The several features of applicant's method and the advantages to be obtained thereby will be readily understood by one skilled in the art from the following description taken in connection with the accompanying drawings, in which Fig. 1 is a somewhat diagrammatic showing of the leg portion of applicant's combination stocking blank, with the foot portion subsequently to be knitted thereto outlined in dot-and-dash lines; Fig. 2 is a somewhat diagrammatic plan view on an enlarged scale partly in section, showing the last course of leg fabric loops supported on the needles of a flat full-fashioned knitting machine, and with loop lifting points engaging the fabric loops extending from the heel corners to the selvages preparatory to removing these loops from the needles; Fig. 3 is a fragmentary plan view of the knitting section showing a subsequent step in the operation in which the last course of leg fabric loops extending from the heel corner have been disengaged from the needles and are hanging on the loop lifting points to the back sides of and clear of the needles, and in which setting-up hooks have been brought into position to form a setting-up course on the now empty needles extending from the heel corners to the selvages. In order to bring out more clearly the operation of the hooks to engage with the setting-up course loops and to simplify the drawings, the knitting yarn which has been laid against the needle shanks by the sinkers for the formation of the first course of sole fabric, is shown in a hypothetical straight line position. Fig. 4 is a detail sectional view in right side elevation showing the relative positions of the knockover bits, needles, sinkers and loop lifting points at one point in the operation of lifting those portions of the last course of leg fabric extending from the heel corners from the needles; Fig. 5 is a view similar to Fig. 4, showing a subsequent position of the parts in which the loop lifting points and the loops held thereon have been passed forwardly between and to the back sides of the needles; Fig. 6 is a view similar to Fig. 3, showing a subsequent step in the operation in which the first course of sole fabric has been knocked over in a normal manner, and in which the setting-up loops of the first sole course extending from the heel corners are supported on the take-up hooks; Fig. 7 is a detail sectional view in side elevation showing a relative position of the knockover bits, sinkers, needles, loop lifting points and setting-up hooks, in which the setting-up hooks have been positioned between the needles and beneath the sinkers to receive the sinker wale loops of the first course of sole fabric extending from the heel corners to the selvages; Fig. 8 is a view similar to Fig. 7, showing a subsequent position of the parts corresponding exactly to the position shown in Fig. 6, in which the sinker wale loops of the first sole course are held on the setting-up hooks; Fig. 9 is a somewhat diagrammatic plan view showing the relative positions of the loop lifting points, take-up hooks and needles at the completion of the knitting of the foot portion of the fabric; Fig. 10 is a somewhat diagrammatic plan view on an enlarged scale, of the loop lifting points and take-up hooks illustrated in Fig. 9 on the left side of the knitting section, illustrating the manner in which the course loops supported on the loop lifting points and setting-up hooks are moved into straight line relationship, the setting

up hooks being moved beneath the loop lifting points and about the heel corner as a pivot, to bring the two sets of elements into straight line relation; Fig. 11 illustrates a subsequent position of the loop lifting points and setting-up hooks in straight line relation, and in which the portions of the foot fabric supported by the take-up hooks have been folded over onto the instep portion of the fabric: Fig. 12 is a detail view in side elevation taken on the line 12—12 of Fig. 11, showing specifically the relative positions of the foot and leg portions of the fabric, and the loop lifting points and take-up hooks in relation thereto; Fig. 13 is a somewhat diagrammatic plan view partly in section, illustrating the positions of those elements with relation to the needles, and with the foot portion of the fabric folded forwardly during the transfer of the supported course loops to adjacent portions of the needle series; Fig. 14 is a detail view in side elevation showing the relative positions of the loop lifting points, take-up hooks and leg and foot fabric supported thereon substantially in the position shown in Fig. 13, preparatory to the transfer of the supported loops to the needles; Figs. 15 and 16 are detail sectional views in side elevation showing relative positions of the loop lifting points and needles during succeeding steps in the operation of transferring the supported loops of the last leg fabric course back to the needles; Fig. 17 is a somewhat diagrammatic sectional view in side elevation, illustrating particularly the operation of the take-up hooks and cover points cooperating therewith, to transfer the supported loops of the first course of foot fabric back to the needles; Fig. 18 is a view similar to Figs. 15 and 16, showing a subsequent step in the transfer operation, in which the supported loops of the last course of leg fabric have been transferred back to the needles; Fig. 19 is a somewhat diagrammatic plan view partly in section, illustrating more particularly the operation of the needles, sinkers, loop transfer points and presser bar during the knitting of successive courses of heel fabric and the inter-knitting of the adjoining wale loops of the supported foot fabric course into the inner selvage edges of the heel portions; Figs. 20 to 23 inclusive, are a series of detail sectional views showing successive steps in the operation of transferring the supported course loops of foot fabric to the left on the needles as shown in Fig. 19, to cause these loops to be successively inter-knitted with following heel fabric courses; Fig. 24 is a somewhat diagrammatic view of the completed stocking blank, illustrating particularly the heel portions knitted thereto; and Fig. 25 is a somewhat diagrammatic plan view similar to Fig. 6, illustrating a special case of applicant's method, in which the first course of sole fabric is of greater width than the last course of foot fabric, to secure a desired proportion in the size of the foot to the leg.

As shown in the drawings, applicant's improved method of knitting a combination stocking blank having the heel portions inter-knitted therewith, is set forth, and the several steps of the method have been illustrated in connection with the operation of a flat full-fashioned knitting machine having the usual spring beard needles **35** movable as a unit with relation to the press edge **36**, knockover bits **37**, and individually movable yarn measuring sinkers **38**. It will be understood that while the several steps of applicant's method are particularly well adapted to enable a combination blank of this general description to be knitted on a full-fashioned type machine having loop lifting points and fabric setting-up hooks operating in substantially a well known manner for transferring fabric loops to and from the needles, and for setting up and subsequently transferring to the needles, setting-up courses of fabric loops, the several steps of applicant's method are not limited in scope to the performance of said steps on any particular type of machine or in connection with the specific instrumentalities disclosed, except as specifically defined in the appended claims.

In carrying out applicant's method, the leg portion of the stocking including the turned welt **40**, leg **42** and high heels **44** are knitted in the usual manner to form that portion of a stocking blank illustrated in solid lines in Fig. 1. At this point in the knitting operation, the last course of leg fabric comprising the intermediate or instep loops **46** and the outer high heel loops **48** is supported on the needles **35** of the knitting section as shown in Fig. 2. As the next step in the operation, applicant introduces loop lifting points **50** which may be of ordinary description, and operate to remove from the needles the high heel course loops **48** extending from the heel corners to the selvages. These loops having been removed from the needles, are moved on their supporting elements over and to the back sides of the needles to be subsequently moved away from the needles as the fabric is taken up during subsequent knitting of the foot. The manner in which these loop lifting points **50** operate, is well illustrated in Figs. 2 to 8 inclusive, Fig. 2 showing in sectional plan the loop lifting points engaged with the needles in position to remove the loops therefrom. The loop lifting points are then moved downwardly with the needles in the usual manner to cause the loops to be shifted onto the points. As the needles are again raised to an intermediate position shown in Fig. 4, the loop lifting points **50** with the high heel loops **48** held thereon, are moved upwardly a sufficient distance to cause these loops to clear the tops of the needles without at the same time unduly stretching the loop at the heel corner at each end of the instep portion of the leg course still held on the needles. The points **50** may then be moved laterally into a position in which they can be passed through the outer portions of the needles to a position as shown in Fig. 5, and also Fig. 3. The loop lifting points **50** are preferably mounted on point bars **51** (see Figs. 14 and 17) which may be supported in any convenient manner to move as herein set forth. It will also be noted that prior to the loop lifting operation above described, the yarn end or ends leading from carriers knitting the leg and high heel portions of the blank, have been secured to a yarn clamp **52** which is preferably supported in such a manner as to move away from the needles with the loop lifting points **50** during the subsequent knitting of the foot fabric.

The first course of foot fabric is now knitted, and the yarn being laid by a carrier **54** as shown in Fig. 3. This is a diagrammatic showing in which the sinkers have been omitted, and the yarn is shown in a straight line position instead of being kinked against the needles as would, of course, actually be the case. The end of the yarn fed from the carrier **54** has been secured in the clamp **52**. The machine is now stopped prior to the drawing of the newly kinked yarn off of the noses of the sinkers **38** substantially in the position shown in Fig. 7, in which sectional take-up

hook bars 56 having mounted thereon take-up hooks 58 are placed in position for engagement with the sinker loops set up on the empty needles extending from the heel corner to the selvage edges of the fabric. Following the usual mode of operation in setting up welt fabric, the setting-up hooks 58 are moved into position beneath the sinkers and above the knockover elements to receive the sinker loops as the continued turning over of the machine causes these loops to be moved downwardly to the knockover level. During the subsequent knitting it may be assumed that the sectional take-up hook bars and take-up hooks 58 will be tensioned away from the needle series in any well known manner, this tension being applied immediately after the needles have reached their low position, as shown in Fig. 8.

The knitting of the foot is now continued, the fabric being tensioned away from the needles and taken up in the usual manner until the last ravel toe courses have been knitted and the blank is ready to be cast off from the needles, as shown in Fig. 9. During the knitting of the foot, the take-up hocks 58 and loop lifting points 50 together with the thread clamp 52, are moved away from the needles in such a manner as to maintain the supported portions of the last course of leg fabric and the first course of foot fabric extending from the heel corners to the selvages in substantially the same relative position to the fabric which is being taken up. The relative positions of these parts during this operation, are well illustrated by Figs. 6 to 9 inclusive, Fig. 9 illustrating particularly the positions of these elements with relation to the needles at the end of the operation of knitting the foot. It may be assumed that at this point in the operation, the assembly of parts including the take-up hooks 58, loop lifting points 50 and thread clamp 52 are located substantially over or upon the work table of the machine (not shown).

As the next step in applicant's method, the sectional take-up hook bars 56 and hooks 58 are now moved relatively to the loop lifting points 50 pivoting about the heel corners, so that the supported loops of the two leg and foot courses are brought substantially into straight line relationship. This operation is shown in Figs. 10, 11 and 12 of the drawings, Fig. 10 showing the sectional take-up hook bar being moved beneath the loop lifting points 50, and over the previously knitted foot fabric which is folded over upon itself and beneath the take-up hooks 58. This position of the parts, is best shown in the corresponding Figs. 11 and 12.

At this point it may be noted that each of the take-up hooks 58 is provided with a cover point 60 which is carried on a support slidably mounted on the take-up hook bar 56 to permit the cover point 60 to be moved between alternative positions to open and close the take-up hooks 58. The cover points 60 are provided in order to insure the maintaining of the setting-up loops on the hooks during the manipulation of the take-up bar into straight line position with relation to the loop lifting points 50, and also to facilitate in the transfer of these loops back to the needles. As shown, for example, in Figs. 12 and 17 of the drawings, each of the cover points 60 is provided on the outer side thereof with a grooved portion 64 to permit the engagement of the needle beard therein, so that the cover points may operate in a manner similar to ordinary transfer quills to transfer the loops held thereon to the needles.

After the partial setting-up courses of foot fabric loops held on the take-up hooks 58 have been moved to the straight line position shown in Fig. 11, the foot fabric is cast off from the needles and folded forwardly, the toe being pulled under the hooks and over the previously knitted leg portion of the fabric into the position shown in Fig. 13. This operation in effect reverses the folded portions of the foot fabric, so that those portions of the sole fabric having their terminal wale loops supported on the take-up hooks 58, are again placed in their normal position with the inside face of the fabric turned upwardly for the knitting of the heel portions thereto.

The take-up hook bars 56 are now moved to a vertical position as shown in Fig. 14, in which the setting-up fabric loops 48 will be held against the cover points 60 preparatory to the transfer of these loops together with the supported high heel loops 48 to adjacent portions of the needle series as shown in Fig. 13. For this operation the take-up hooks 58 may be moved downwardly with relation to the cover points 60 which are brought into alignment with and at the same level with the loop lifting points 50 as best shown in Fig. 17, so that the points 50 and 60 form integral parts of a transfer bar which is well adapted for a simultaneous transfer of all of the supported loops back onto the needles. While in the preferred form of applicant's method illustrated in the drawings, the fabric loops are transferred back to the same needle series which have been previously utilized for knitting the leg and foot portions of the blank, it will be readily understood that the fabric may equally well be transferred to the needles of a separate heeling machine for the knitting of the heel portions into the blank. The transfer of the supported loops of the last course of leg fabric and the first course of foot fabric back to the needles is effected in a conventional manner, in which the loop lifting points 50 and cover points 60 are registered with the needles, and the loops supported thereon then moved downwardly onto the shanks of the needles. The casting-off of the loops onto the needles may be performed manually by means of a wiping operation, or mechanically in accordance with the usual mode of operation of the needles, sinkers and loop lifting points in a conventional narrowing operation, as shown in Figs. 15, 16 and 18 of the drawings.

The operation of knitting the heel portions 70 of the blank is then performed substantially in the manner described in applicant's copending application above referred to, succeeding heel courses being knitted on the active needles to which the last course 48 of leg fabric extending from the heel corners to the selvages have been transferred, and the supported course loops of the first foot fabric course being transferred successively one needle to the left with the knitting of each succeeding heel course 70 to cause these loops to be successively inter-knitted with the inner selvage edge of the heel fabric. In order that the supported foot course loops may be held on the needles during the knitting of the heel courses, a split presser bar is employed having relatively movable sections 72 and 74. During the knitting of the heel courses, the presser bar 72 is maintained in operating position, whereas the section 74 is withdrawn so that the needles co-operating therewith will not press off their loops. The operation of transferring the foot fabric loops one needle to the left as shown in Fig. 19 prior to the knitting of each succeeding heel course, is carried out by means of transfer

points 76 which operate in the manner of the ordinary narrowing points in a full-fashioned machine. The successive steps of the transfer operation are shown generally in Figs. 20 to 23 inclusive, in which Fig. 20 shows the transfer points 76 engaged with the needles 35, the needles and transfer points 76 being then moved downwardly as a unit, so that the fabric loops engaging against the knockover elements 37 are moved relatively upwardly onto the transfer points. With the needles again in their narrowing position, the transfer points are moved laterally one needle as shown in Fig. 22, and are again engaged with the needles which are moved downwardly therewith into a position where the sinkers 38 can be advanced to engage with and hold down the fabric. The needles and points are finally moved upwardly causing the loops to be again cast off onto the shanks of the needles as shown in Fig. 23. Finally the ravel courses of the heel portions of the blank are knitted to produce the finished blank, as shown in Fig. 24.

A principal advantage of applicant's method as herein disclosed, in which the last course of leg fabric and the first course of foot fabric extending from the heel corners to the selvages are separately supported during the knitting of the foot, consists in the fact that the first courses of foot fabric may be extended to any desired width independently of the width of the foot portion of the blank, to secure a desired proportion in the size of the foot to the leg. As shown, for example, in Fig. 25, a relatively larger number of needles are employed in the knitting of the first course of foot fabric, which therefore overlaps by a considerable margin the last course of leg fabric supported on the loop lifting points 50. It is necessary only that a setting-up hook bar 56 be employed having a sufficient number of take-up hooks 58 for engagement with all of the sinker wale loops of the setting-up course knitted on empty needles extending from the heel corners to the selvages. At this point it may be noted that in transferring the supported courses of leg and fabric loops back to the needles for the knitting of the heel portions thereof, it is preferred to relatively spread the two groups of loop lifting points 50 extending from the left and right heel corners respectively, so that an ample number of needles may be provided for supporting the setting-up sole course loops on adjacent portions of the needle series therebetween for the inter-knitting of the heel courses therewith.

The nature and scope of the invention having been indicated, and a preferred manner of practicing the invention having been described, what is claimed is:

1. The method of knitting a combination full-fashioned stocking blank, which comprises knitting the leg and high heel portions of the blank on a needle series, supporting the terminal wale loops of the last course of high heel fabric extending from the heel corners to the selvages on loop lifting points, knitting a first course of foot fabric and supporting the sinker loops of said course formed on empty needles from the heel corners to the selvages on take-up hooks, knitting the foot portion of the fabric while maintaining said supported loops respectively on said loop lifting points and hooks, transferring the supported course of high heel loops and first course of foot loops extending from the heel corner onto adjacent portions of a needle series, knitting heel courses onto the leg portion of the blank, and during the knitting of said courses, inter-knitting the inner selvage edges of said heel portions into the adjoining supported foot fabric loops.

2. The method of knitting a combination stocking blank, which comprises knitting the leg and high heel portions thereof, supporting those portions of the last course of leg fabric extending between the heel corners and the selvages on loop supporting implements, knitting a first course of foot fabric, and supporting portions of said course extending from the heel corners to the selvages on take-up hooks, knitting the foot portion of the blank while maintaining said portions of the last course of leg fabric and the first course of foot fabric extending from the heel corners supported respectively on the points and on the hooks, knitting heel courses into said supported course of leg fabric extending from the heel corners to the selvages, and during the knitting of following heel courses, successively knitting the wale loops of said supported foot fabric course into the inner selvage edges of the heel portions.

3. The method of knitting a combination stocking blank on a needle series, which comprises knitting the leg portion thereof, supporting those portions of the last course of leg fabric extending from the heel corners to the selvages on loop supporting implements, knitting a first course of sole fabric, introducing fabric take-up implements to engage with portions of said course of foot fabric loops formed on empty needles extending from the heel corners to the selvages, knitting the foot portion of the fabric, moving said loop supporting implements and take-up implements away from the needles during the knitting of the foot fabric, casting off the foot fabric from the needles, transferring the supported leg loops and foot loops extending from the heel corners onto adjacent portions of a needle series, knitting heel courses into said supported course of leg fabric extending from the heel corners to the selvages, and during the knitting of following heel courses, successively knitting adjacent wale loops of said supported foot fabric course into the inner selvage edges of the heel portions.

4. The method of knitting a combination full-fashioned stocking blank, which comprises knitting the leg and high heel portions of the blank on a needle series, supporting the terminal wale loops of the last course of high heel fabric extending from the heel corners to the selvages on loop lifting points, knitting a first course of foot fabric and supporting the sinker loops of said course formed on empty needles from the heel corners to the selvages on take-up hooks, knitting the foot portion of the fabric while maintaining said supported loops respectively on said loop lifting points and hooks, moving the hooks extending from the heel corner about a pivot substantially at the heel corner and over the foot fabric to a straight line position with relation to the loop lifting points, drawing the folded foot portion of the fabric forwardly between the hooks and leg portion of the fabric to reverse the folded portions of the foot fabric and thereby to position the supported portions of leg and foot fabric on the same side of the points and hooks and with the same face of the fabric facing upwardly, transferring the supported course of high heel loops and first course of foot loops extending from the heel corner onto adjacent portions of a needle series, knitting heel

courses onto the leg portion of the blank, and during the knitting of said courses, inter-knitting the inner selvage edges of said heel portions into the adjoining supported foot fabric loops.

5. The method of knitting a combination full-fashioned stocking blank, which comprises knitting the leg portion of the blank on a needle series, supporting the terminal wale loops of the last course of leg fabric extending from the heel corners to the selvages on loop lifting points, knitting a first course of foot fabric including partial setting-up courses extending from the heel corners to the selvages, supporting the partial course setting-up loops on take-up hooks, knitting the foot portion of the fabric while maintaining said supported loops respectively on the loop lifting points and hooks, moving the hooks extending from each heel corner about a pivot substantially at the heel corner and over the foot fabric to a straight line position with relation to the loop lifting points, drawing the folded foot portion of the fabric forwardly between the hooks and leg portion of the fabric to reverse the folded portions of the foot fabric and thereby to position the supported portions of leg and foot fabric on the same side of the points and hooks and with the same face of the fabric turned upwardly, transferring the supported foot fabric loops from the hooks onto loop transfer points, transferring the leg loops supported on the loop lifting points and the foot loops supported on the transfer points into adjacent points of a needle series, knitting heel courses into said supported course of leg fabric extending from the heel corners to the selvages, and during the knitting of following heel courses, successively knitting adjacent wale loops of said supported foot fabric course into the inner selvage edges of the heel portions.

6. The method of knitting a combination full-fashioned stocking blank, which comprises knitting the leg portion of the blank on a needle series, casting off and supporting the terminal wale loops of the last course of leg fabric extending from the heel corners to the selvages, knitting a first course of foot fabric including partial setting-up courses extending from the heel corners to the selvages, supporting the partial course setting-up loops, knitting the foot portion of the fabric and drawing said supported loops of the last course of leg fabric and the first course of foot fabric away from the needles with the fabric as knitted, moving the setting-up course loops of foot fabric extending from each heel corner about a pivot substantially at the heel corner and over the foot fabric to a straight line position with relation to the supported loops of the last course of leg fabric, drawing the folded foot portion of the fabric forwardly between the supported foot fabric loops and the instep portion of the fabric to reverse the folded portions of foot fabric and to position the supported portions of leg and foot fabric on the same side of said supported leg and foot fabric loops and with the same face of the fabric turned upwardly, transferring the supported courses of leg and foot fabric loops onto adjacent portions of a needle series, knitting heel courses onto the heel portions of the blank, and during the knitting of said courses inter-knitting the inner selvage edges of the heel courses into the adjoining supported foot fabric loops.

7. The method of knitting a combination full-fashioned stocking blank, which comprises knitting the leg and high heel portions of the blank, supporting the terminal wale loops of the last course of high heel fabric extending from the heel corners to the selvages on loop lifting points, severing and clamping the ends of the high heel course knitting yarns, knitting a first course of foot fabric and supporting the sinker loops of said course formed on empty needles from the heel corners to the selvages on take-up hooks, knitting the foot portion of the fabric, moving said loop lifting points, take-up hooks and clamped yarn ends away from the needles during the knitting of the foot fabric, casting off the foot fabric from the needles, transferring the supported foot fabric loops from the hooks onto loop transfer points, transferring the leg loops supported on the loop lifting points and the foot loops supported on the transfer points onto adjacent portions of a needle series, knitting heel courses into said supported course of leg fabric extending from the heel corners to the selvages, and during the knitting of following heel courses, successively knitting adjacent wale loops of said supported foot fabric course into the inner selvage edges of the heel portions.

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