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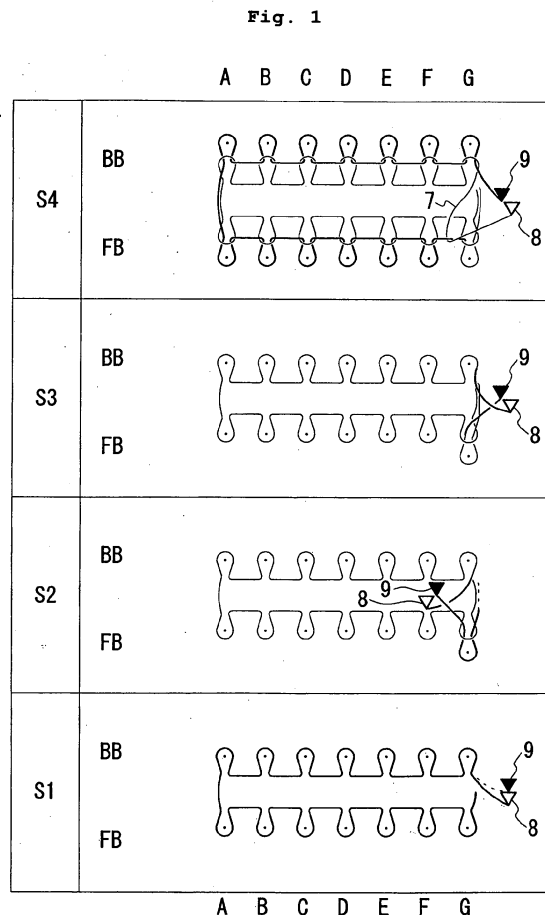
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(54) Knitting method on a flat knitting machine having a plurality of yarn feeders and a corresponding knitted fabric

(57) To provide a knitting method of a knitted fabric enabling knitting while preventing a cross-over yarn portion, which connects two knitted fabric portions at positions spaced apart in the wale direction of the knitted fabric, from becoming a free state, and a knitted fabric knitted by applying such knitting method of the knitted fabric. A preceding stitch row (knitting needle G of FB) is knitted with a knitting yarn from a yarn feeder 9 on a far side with respect to a FB, which is a target needle bed, on which knitting is carried out (S2), and the yarn feeder 9 is once moved towards the preceding stitch row side of a stitch (knitting needle G of FB) at a termination of the preceding stitch row (S3). A yarn feeder 8 on a near side with respect to the FB is moved in the direction opposite to the direction of forming the preceding stitch row so that the knitting yarn extending from the yarn feeder 8 intersect at the upper side of the needle bed gap of the knitting yarn extending from the yarn feeder 9 (S3). A trailing stitch row, which is the rest of the preceding stitch row, is then knitted with the yarn feeder 9 (S4).



Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a knitting method of a knitted fabric for arranging a cross-over yarn portion, which connects knitted fabric portions, on the back side of a knitted fabric when knitting the knitted fabric including two knitted fabric portions that are knitted with the same knitting yarn spaced apart in a wale direction of the knitted fabric such as a striped sweater, and a knitted fabric knitted using such knitting method.

Description of the Related Art

[0002] Knitting one knitted fabric using a plurality of knitting yarns of different colors with a flat knitting machine having at least a pair of front and back needle beds has been carried out from the related art. A typical example is knitting a striped tubular knitted fabric of a horizontal-striped pattern.

[0003] When knitting a tubular knitted fabric such as a striped sweater or cardigan, circling knitting or C-shaped flechage knitting is carried out for a few courses with a knitting yarn (e.g., white) fed from a first yarn feeder arranged in the flat knitting machine to knit a knitted fabric portion, which is one of the stripes in the striped pattern. The circling knitting or the C-shaped flechage knitting is then carried out for a few courses with a knitting yarn (e.g., blue) fed from a second yarn feeder in continuation to the wale direction of the knitted fabric portion to form a knitted fabric portion that configures the next stripe in the striped pattern. Thereafter, the knitting with the knitting yarn (white) fed from the first yarn feeder and the knitting with the knitting yarn (blue) fed from the second yarn feeder are repeated to complete the striped knitted fabric having a horizontal-striped pattern.

[0004] However, when knitting the striped tubular knitted fabric, the following problems arise due to the positional relationship of the first yarn feeder and the second yarn feeder with respect to the needle beds.

[0005] First, consider a case in which the second yarn feeder is a far side yarn feeder that is on the far side when seen from the front needle bed (hereinafter referred to as FB), that is, the back needle bed (hereinafter referred to as BB) side, and the first yarn feeder is a near side yarn feeder that is on the near side when seen from FB when starting the knitting of a knitted fabric portion (hereinafter referred to as intermediate knitted fabric portion) using the second yarn feeder following in the wale direction of a knitted fabric portion (hereinafter referred to as lower knitted fabric portion) knitted with the first yarn feeder. In this case, the knitting yarn extending from the near side yarn feeder is arranged on the outer side of the tube of an intermediate stitch row to be knitted while knitting the intermediate stitch row. Thus, if a knitted fabric

portion (hereinafter referred to as upper knitted fabric portion) is knitted following the intermediate knitted fabric portion using again the first yarn feeder after the intermediate knitted fabric portion is formed with the second yarn feeder, the cross-over yarn portion that connects the lower knitted fabric portion and the upper knitted fabric portion and crosses the intermediate knitted fabric portion will be arranged on the outer side of the tube of the tubular knitted fabric.

[0006] A technique of Patent document 1 is proposed for the technique of solving such problem. In the technique of Patent document 1, the C-shaped flechage knitting is carried out when knitting the intermediate knitted fabric portion with the second yarn feeder so that the knitting yarn extending from the first yarn feeder is always arranged on the inner side of the tube of the intermediate knitted fabric portion. The cross-over yarn portion connecting the lower knitted fabric portion and the upper knitted fabric portion is thus arranged on the inner side of the tube of the tubular knitted fabric, as shown in Fig. 1 and Fig. 3 of Patent document 1.

[0007]

Japanese Patent Publication No. 4002870

SUMMARY OF THE INVENTION

[0008] In the technique of Patent document 1, the cross-over yarn portion connecting the lower knitted fabric portion and the upper knitted fabric portion which are at positions spaced apart in the wale direction of the knitted fabric is in a free state on the inner side of the tube of the tubular knitted fabric. Thus, if the cross-over yarn portion is long, such cross-over yarn portion may get caught on the wearer when the wearer wears the tubular knitted fabric. The development of the knitting method of the knitted fabric in which the cross-over yarn portion does not become a free state is thus desired.

[0009] In light of the foregoing, one object of the present invention is to provide a knitting method of a knitted fabric enabling knitting while preventing a cross-over yarn portion, which connects two knitted fabric portions at positions spaced apart in the wale direction of the knitted fabric, from becoming a free state, and a knitted fabric knitted by applying such knitting method of the knitted fabric.

[0010] The present invention is a knitting method of a knitted fabric in which a lower knitted fabric portion on a lower side in a wale direction of a knitted fabric is knitted using a first yarn feeder, which is one of a plurality of yarn feeders, an intermediate knitted fabric portion continuing to an upper side in the wale direction of the lower knitted fabric portion is knitted using a second yarn feeder, which is a yarn feeder different from the first yarn feeder, and an upper knitted fabric portion continuing to an upper side in the wale direction of the intermediate knitted fabric portion is knitted using again the first yarn feeder when knitting the knitted fabric using a flat knitting machine

having at least one needle bed and a plurality of yarn feeders for feeding a knitting yarn to knitting needles of the needle bed. In the knitting method of the knitted fabric of the present invention, assuming the second yarn feeder is a far side yarn feeder on a far side seen from a target needle bed and the first yarn feeder is a near side yarn feeder on a near side seen from the target needle bed with respect to the target needle bed on which knitting is carried out when knitting the intermediate knitted fabric portion using either the front or the back needle bed, or when knitting the intermediate knitted fabric portion using both the front and back needle beds, the following steps are carried out when knitting a unit stitch row for one course of the intermediate knitted fabric portion in a series in a longitudinal direction of the target needle bed.

[Step A] knitting a preceding stitch row, which is one part of the unit stitch row, with a knitting yarn from the far side yarn feeder so that a knitting yarn from the near side yarn feeder is not hooked by the knitting yarn from the far side yarn feeder.

[Step B] after step A, moving the near side yarn feeder in a direction opposite to the direction of forming the preceding stitch row in step A so that the knitting yarn extending from the near side yarn feeder intersect at an upper side of a needle bed gap of the knitting yarn extending from the far side yarn feeder.

[Step C] after step B, knitting a trailing stitch row, which is the rest of the preceding stitch row, of the unit stitch row knitted with the target needle bed.

[0011] The knitted fabric in the present invention is not limited to the tubular knitted fabric knitted using both the front needle bed and the back needle bed. While the knitting method of the knitted fabric of the present invention has been contrived from the problems in the tubular knitted fabric, it can also be applied to a single layer knitted fabric (e.g., handkerchief) knitted using either one of the front and back needle beds without any problems.

[0012] According to one aspect of the knitting method of the knitted fabric of the present invention, when increasing the unit stitch row in continuation to the wale direction of the intermediate knitted fabric portion using the knitting yarn from the far side yarn feeder, a position of tangling the knitting yarn extending from the near side yarn feeder and the knitting yarn extending from the far side yarn feeder can be shifted in a knitting width direction of the knitted fabric between the unit stitch rows adjoining in the wale direction.

[0013] In another aspect of the knitting method of the knitted fabric of the present invention, the knitted fabric to be knitted can be a tubular knitted fabric.

[0014] The knitted fabric of the present invention is a knitted fabric knitted using a flat knitting machine having at least one needle bed and a plurality of yarn feeders for feeding a knitting yarn to knitting needles of the needle bed, the knitted fabric including three knitted fabric portions continuing in a wale direction of the knitted fabric. In the knitted fabric of the present invention, assuming the three knitted fabric portions in the knitted fabric are

a lower knitted fabric portion, an intermediate knitted fabric portion, and an upper knitted fabric portion in order from a lower side of the wale direction, the lower knitted fabric portion and the upper knitted fabric portion are formed by one knitting yarn. A cross-over yarn portion connecting a stitch at a termination of the lower knitted fabric portion and a stitch at a starting end of the upper knitted fabric portion of the knitting yarn configuring the lower knitted fabric portion and the upper knitted fabric portion goes out from a back side to a front side and again to the back side of the intermediate knitted fabric portion to be tangled to a sinker loop of each stitch row lined in the wale direction configuring the intermediate knitted fabric portion.

[0015] The "back side of the intermediate knitted fabric portion" in the knitted fabric of the present invention is the inner side of the tube if the knitted fabric to be finished is a tubular knitted fabric and the side in which the back stitches are formed more than the front stitches if the knitted fabric portion to be finished is a single layer knitted fabric.

[0016] According to the knitting method of the knitted fabric of the present invention, the knitted fabric of the present invention knitted with the cross-over yarn portion, which connects the lower knitted fabric portion and the upper knitted fabric portion, tangled to the intermediate knitted fabric portion at the back side of the intermediate knitted fabric portion can be knitted. As a result, the cross-over yarn portion does not become a free state at the back side of the intermediate knitted fabric portion, whereby the cross-over yarn portion does not get caught on the wearer when the wearer wears the knitted fabric.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017]

Fig. 1 is a knitting process diagram showing a first half of the knitting process in which a knitting method of a knitted fabric of the present invention is applied when knitting one of the stripes in the striped sweater with a yarn feeder at a position on the far side with respect to a front needle bed (FB) ;

Fig. 2 is a knitting process diagram showing a second half of the knitting process following Fig. 1;

Fig. 3 is a knitting process diagram showing a first half of the knitting process in which a knitting method of a knitted fabric of the present invention is applied when knitting one of the stripes in the striped sweater with a yarn feeder at a position on the far side with respect to a back needle bed (BB) ; and

Fig. 4 is a knitting process diagram showing a second half of the knitting process following Fig. 3.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] Embodiments of the present invention will be

hereinafter described based on the drawings. With respect to the knitting described in the embodiments, a knitting example using a two-bed flat knitting machine having at least a pair of front and back needle beds, and a plurality of yarn feeders, attached to travel on a plurality of rails arranged in parallel in a longitudinal direction of the needle beds, for supplying a knitting yarn to knitting needles of the needle beds will be described. The knitting of the embodiment of the present invention may, of course, be carried out using a two-bed flat knitting machine equipped with a transfer jack bed or a four-bed flat knitting machine besides the two-bed flat knitting machine.

<First embodiment>

[0019] An example of knitting one part of a body in a striped sweater of a horizontal-striped pattern using a knitting method of a knitted fabric of the present invention will be described based on Figs. 1 to 4.

[0020] Figs. 1 to 4 are knitting process diagrams for knitting the striped sweater with a knitting yarn from a yarn feeder 8 indicated with ▽ and a knitting yarn (knitting yarn of different color or type from yarn feeder 8) from a yarn feeder 9 indicated with ▼. The "alphabet + number" on the left side of the figure indicates the number of the knitting process, the black dot indicates the knitting needle arranged in the FB and the BB, A to G indicate the positions of the knitting needles of the needle bed, and the portion where the knitting operation is actually carried out is indicated with a thick line. In each knitting process shown in the figures, the knitting approximately advances in the clockwise direction. The illustrated knitting process may include an area in some part where the knitting needle that is actually of the same needle bed is displayed shifted in the up and down direction in the plane of drawing for the sake of convenience of explanation (e.g., knitting needle G of FB in S3 of Fig. 1).

[0021] In S1, a state in which the knitting of a knitted fabric portion (lower knitted fabric portion), which is one stripe in the striped pattern, is finished using the yarn feeder 8 is shown. The yarn feeder 9 on the far side of the yarn feeder 8 with respect to the FB, that is, the yarn feeder 9 attached to freely travel on the rail positioned more distant from the FB than the rail on which the yarn feeder 8 is attached to freely travel, is arranged near the yarn feeder 8. The yarn feeder 9 is the yarn feeder that has knitted the stripe one before the stripe knitted with the yarn feeder 8. A knitted fabric portion (intermediate knitted fabric portion) following in the wale direction of the lower knitted fabric portion knitted with the yarn feeder 8 is knitted from the state of S1 with the knitting yarn fed from the yarn feeder 9. The knitting by the yarn feeder 9 starts from the knitting needle G of the FB.

[0022] When the circling knitting is carried out in the clockwise direction by the yarn feeder 9 to increase the knitting course of the intermediate knitted fabric portion, the yarn feeder 9 becomes the far side yarn feeder at the

position on the far side of the yarn feeder 8 with respect to the FB (target needle bed). In such a case, the knitting yarn extending from the yarn feeder 8 is arranged on the outer side of the tube of the intermediate knitted fabric portion, as previously described in the description of the related art in the present specification. Thus, the knitting method of the knitted fabric of the present invention is implemented, as will be shown in the subsequent knitting processes. Problems do not arise in increasing the knitting course in the BB since the yarn feeder 9 is the near side yarn feeder with respect to the BB, and it is not the target needle bed defined in the claims of the present invention.

[0023] In S2, the yarn feeder 8 is first moved towards the left in the plane of drawing, and then a stitch is formed on the knitting needle G of the FB while also moving the yarn feeder 9 towards the left side in the plane of drawing. The stitch formed on the knitting needle G of the FB is a preceding stitch row, which is one part of a unit stitch row (stitch row for one course in FB, and does not include stitch row in BB) for one course of the intermediate knitted fabric portion knitted with the FB. The knitting yarn extending from the yarn feeder 8 will not be arranged on the FB side (i.e., outer side of tube) of the preceding stitch row by carrying out the knitting of the preceding stitch row by the yarn feeder 9 only on the knitting needle G of the FB.

[0024] In the following S3, the yarn feeder 8 and the yarn feeder 9 are both moved towards the right side in the plane of drawing, and stopped at the right side in the plane of drawing of the stitch of the knitting needle G, which is the stitch of the termination of the preceding stitch row. Either one of the yarn feeder 8 and the yarn feeder 9 may be moved first. The yarn feeder 9 that has finished knitting the preceding stitch row may be moved towards the right side in the plane of drawing and then the yarn feeder 8 may be moved towards the right side in the plane of drawing, or vice versa. In either case, the knitting yarn extending from the yarn feeder 8 on the near side with respect to the FB intersects at the upper side of the needle bed gap of the knitting yarn extending from the yarn feeder 9 on the far side with respect to the FB.

[0025] In S4, a stitch row (trailing stitch row) is formed on the knitting needles F to A of the FB while moving the yarn feeder 9 towards the left in the plane of drawing, and thereafter, a stitch row is formed on the knitting needles A to G of the BB while moving the yarn feeder 9 towards the right in the plane of drawing. It is apparent from S4 that the knitting yarn (cross-over yarn portion 7) extending from the yarn feeder 8 is arranged on the inner side of the tube, and hooked to a sinker loop (sinker loop connecting the stitch of the knitting needle G of the FB and the stitch of the knitting needle F of the FB) of the unit stitch row knitted with the yarn feeder 9 so as to go out from the inner side to the outer side and again to the inner side of the tube. The portion hooked to the sinker loop in the cross-over yarn portion 7 is pulled towards the inner side of the tube and is barely visible from the

outer side of the tube.

[0026] In S5 to S7, a process of knitting one more course with the yarn feeder 9 will be described. First, in S5, stitches are formed on the knitting needles G, F of the FB while moving the yarn feeder 9 towards the left in the plane of drawing, after moving the yarn feeder 8 towards the left side in the plane of drawing, similar to S2. The two stitches formed on the knitting needles G, F of the FB are the preceding stitch row in the relevant knitting course.

[0027] In the following S6, the yarn feeder 8 and the yarn feeder 9 are both moved towards the right side in the plane of drawing, and stopped at the right side in the plane of drawing of the stitch of the knitting needle F, which is the stitch of termination of the preceding stitch row. Similar to S3, either one of the movement of the yarn feeder 8 and the movement of the yarn feeder 9 in S6 may be carried out first. In either case, the knitting yarn extending from the yarn feeder 8 intersects at the upper side of the needle bed gap of the knitting yarn extending from the yarn feeder 9.

[0028] In S7, stitches are formed on the knitting needles E to A of the FB while moving the yarn feeder 9 towards the left in the plane of drawing, and thereafter, stitches are formed on the knitting needles A to G of the BB while moving the yarn feeder 9 towards the right in the plane of drawing. As shown in S7, the knitting yarn (cross-over yarn portion 7) extending from the yarn feeder 8 is arranged on the inner side of the tube, and hooked to a sinker loop (sinker loop connecting the stitch of the knitting needle E of the FB and the stitch of the knitting needle F of the FB) of the unit stitch row knitted with the yarn feeder 9 so as to go out from the inner side to the outer side and again to the inner side of the tube.

[0029] The position at where the knitting yarn of the yarn feeder 8 and the knitting yarn of the yarn feeder 9 are tangled in S5 to S7 of Fig. 2 is shifted in the knitting width direction with respect to the position at where the knitting yarn of the yarn feeder 8 and the knitting yarn of the yarn feeder 9 are tangled in S2 to S4 of Fig. 1 because the cross-over yarn portion 7 will be arranged on the outer side of the tube if the position at where the knitting yarns of the yarn feeders 8, 9 is tangled are the same position in the knitting width direction between the unit stitch rows adjoining in the wale direction. However, the problem that the cross-over yarn portion 7 is arranged on the outer side of the tube depending on the position where the knitting yarns of the yarn feeders 8, 9 are tangled arises because the yarn feeder 9 is subjected to the circling knitting in one direction (clockwise direction in the present embodiment) during the knitting of the intermediate knitted fabric portion. For instance, if the C-shaped knitting in which the circling direction interchanged every time the intermediate knitted fabric portion is knitted one course is carried out, problems barely arise even if the tangling position is the same position in the knitting width direction between the unit stitch rows adjoining in the wale direction.

[0030] After repeating the knitting process described above until the knitting of the intermediate knitted fabric portion using the yarn feeder 9 is finished, the knitting of the knitted fabric portion (upper knitted fabric portion) following in the wale direction of the intermediate knitted fabric portion is started using the yarn feeder 8 used to knit the lower knitted fabric portion. The cross-over yarn portion 7 connecting the lower knitted fabric portion and the upper knitted fabric portion then can be arranged on the back side of the intermediate knitted fabric portion, that is, the inner side of the tube, and can be hooked and fixed to each course of the intermediate knitted fabric portion.

[0031] The yarn feeder 8 for knitting the upper knitted fabric portion now becomes the far side yarn feeder at a position on the far side of the yarn feeder 9 with respect to the BB. That is, the BB now becomes the target needle bed defined in the claims of the present invention. The knitting method of the knitted fabric of the present invention is applied with the intermediate knitted fabric portion knitted using the yarn feeder 9 in Figs. 1 and 2 redefined as the lower knitted fabric portion, and the upper knitted fabric portion to be knitted using the yarn feeder 8 in Figs. 3 and 4 defined as the intermediate knitted fabric portion.

[0032] First, T1 of Fig. 3 shows a state in which the knitting of the knitted fabric portion (lower knitted fabric portion = intermediate knitted fabric portion knitted in the knitting process of Figs. 1 and 2), which is one of the stripes in the striped pattern, is finished using the yarn feeder 9. The yarn feeder 8 on the far side of the yarn feeder 9 with respect to the BB is arranged near the yarn feeder 9. The knitted fabric portion (intermediate knitted fabric portion) following in the wale direction of the lower knitted fabric portion knitted with the yarn feeder 9 is knitted from the state of T1 with the knitting yarn fed from the yarn feeder 8. The knitting by the yarn feeder 8 is started from the knitting needle G of the FB.

[0033] In T2, the yarn feeder 8 is first moved towards the left in the plane of drawing to form the stitch row on the knitting needles G to A of the FB, and then the yarn feeder 8 is moved towards the right in the plane of drawing to knit the stitch row on the knitting needles A to F of the BB. The stitch row formed on the knitting needles A to F of the BB is the preceding stitch row, which is one part of the unit stitch row of the intermediate knitted fabric portion knitted with the BB. The knitting yarn extending from the yarn feeder 9 is prevented from being arranged on the BB side (i.e., outer side of tube) of the preceding stitch row by carrying out the knitting of the preceding stitch row by the yarn feeder 8 only up to the needle F of the BB.

[0034] In the following T3, the yarn feeder 8 that has finished the knitting of the preceding stitch row is moved towards the left side in the plane of drawing, and thereafter, the yarn feeder 9 is moved towards the left side in the plane of drawing and the knitting yarn extending from the yarn feeder 9 on the near side with respect to the BB intersects at the upper side of the needle bed gap of the

knitting yarn extending from the yarn feeder 8 on the far side with respect to the BB.

[0035] Furthermore, in T4, a stitch row (trailing stitch row) is formed on the knitting needle G of the BB while moving the yarn feeder 8 towards the right in the plane of drawing. It is apparent from T4 that the knitting yarn (cross-over yarn portion 7) extending from the yarn feeder 9 is arranged on the inner side of the tube, and hooked to a sinker loop (sinker loop connecting the stitch of the knitting needle G of the BB and the stitch of the knitting needle F of the BB) of the unit stitch row knitted with the yarn feeder 8 so as to go out from the inner side to the outer side and again to the inner side of the tube.

[0036] In the next T5 and T6 to T9 of Fig. 4, the process of knitting one more course with the yarn feeder 9 will be described. First, in T5, the yarn feeder 9 is moved towards the right in the plane of drawing, and stopped on the right side in the plane of drawing of the knitting needle G. T5 is the knitting operation carried out so that the knitting yarn from the yarn feeder 9 is not knitted into the stitch row when forming the relevant stitch row on the FB using the yarn feeder 8 in T6 of Fig. 4.

[0037] In T6 to T9 of Fig. 4, the knitting substantially similar to T2 to T5 of Fig. 3 is carried out. The difference lies in that the position to tangle the knitting yarn from the yarn feeder 8 and the knitting yarn from the yarn feeder 9 is shifted towards the left in the plane of drawing.

[0038] First, in T6, the yarn feeder 8 is moved towards the left in the plane of drawing to form the stitch row on the knitting needles G to A of the FB, and then the yarn feeder 8 is moved towards the right in the plane of drawing to knit the stitch row on the knitting needles A to E of the BB. The stitch row formed on the knitting needles A to E of the BB is the preceding stitch row in this knitting course.

[0039] In the following T7, the yarn feeder 8 that has finished the knitting of the preceding stitch row is moved towards the left side in the plane of drawing, and thereafter, the yarn feeder 9 is moved towards the left side in the plane of drawing and the knitting yarn extending from the yarn feeder 9 on the near side with respect to the BB intersects at the upper side of the needle bed gap of the knitting yarn extending from the yarn feeder 8 on the far side with respect to the BB.

[0040] Furthermore, in T8, a stitch row (trailing stitch row) is formed on the knitting needles F, G of the BB while moving the yarn feeder 8 towards the right in the plane of drawing. It is apparent from T8 that the knitting yarn extending from the yarn feeder 9 is arranged on the inner side of the tube, and hooked to a sinker loop (sinker loop connecting the stitch of the knitting needle F of the BB and the stitch of the knitting needle E of the BB) of the unit stitch row knitted with the yarn feeder 8 so as to go out from the inner side to the outer side and again to the inner side of the tube.

[0041] The striped sweater without a catch on the inner side can be knitted by repeating the knitting of Figs. 1 and 2 and the knitting of Figs. 3 and 4 described above.

<Second embodiment>

[0042] In a second embodiment, a case of applying the knitting method of the knitted fabric of the present invention in knitting an intarsia pattern sweater will be described.

[0043] The intarsia knitting is basically a method of knitting a knitted fabric having two or more knitted fabric portions lined in the knitting width direction. In the intarsia knitting as well, the knitting yarn from the same yarn feeder is sometimes used at positions distant in the wale direction. For instance, after knitting two knitted fabric portions lined in the knitting width direction using two yarn feeders different from each other, a plurality of courses may be knitted using only one of the yarn feeders, and then the two knitted fabric portions lined in the knitting width direction may be again knitted using the two yarn feeders. In this case as well, the cross-over yarn portion connecting the two knitted fabric portions spaced apart in the wale direction does not become a free state by applying the knitting method of the knitted fabric of the present invention described with reference to Figs. 1 to 4, so that the cross-over yarn portion is less likely to get caught on the wearer when wearing the knitted fabric to be knitted.

[0044] The embodiments of the present invention are not limited to the embodiments described above, and may be appropriately changed within a scope not deviating from the gist of the present invention. For instance, the knitting method of the knitted fabric of the present invention may be applied in knitting a single layer knitted fabric having an intarsia pattern.

Claims

1. A knitting method of a knitted fabric in which a lower knitted fabric portion on a lower side in a wale direction of a knitted fabric is knitted using a first yarn feeder, which is one of a plurality of yarn feeders, an intermediate knitted fabric portion continuing to an upper side in the wale direction of the lower knitted fabric portion is knitted using a second yarn feeder, which is a yarn feeder different from the first yarn feeder, and an upper knitted fabric portion continuing to an upper side in the wale direction of the intermediate knitted fabric portion is knitted using again the first yarn feeder when knitting the knitted fabric using a flat knitting machine having at least one needle bed and a plurality of yarn feeders for feeding a knitting yarn to knitting needles of the needle bed; wherein assuming the second yarn feeder is a far side yarn feeder 9 (8) on a far side seen from a target needle bed and the first yarn feeder is a near side yarn feeder 8 (9) on a near side seen from the target needle bed FB (BB) with respect to the target needle bed FB (BB) on which the knitting is carried out when knitting

the intermediate knitted fabric portion using either the front or the back needle bed, or when knitting the intermediate knitted fabric portion using both the front and back needle beds, when knitting a unit stitch row for one course of the intermediate knitted fabric portion in a series in a longitudinal direction of the needle bed in the target needle bed FB (BB), the method comprises:

step A of knitting a preceding stitch row, which is one part of the unit stitch row, with a knitting yarn from the far side yarn feeder 9 (8) so that a knitting yarn from the near side yarn feeder 8 (9) is not hooked by the knitting yarn from the far side yarn feeder 9 (8);
 step B of, after step A, moving the near side yarn feeder 8 (9) in a direction opposite to the direction of forming the preceding stitch row in step A so that the knitting yarn extending from the near side yarn feeder 8 (9) intersect at an upper side of a needle bed gap of the knitting yarn extending from the far side yarn feeder 9 (8); and
 step C of, after step B, knitting a trailing stitch row, which is the rest of the preceding stitch row, of the unit stitch row knitted with the target needle bed FB (BB).

2. The knitting method of the knitted fabric according to claim 1, wherein when increasing the unit stitch row in continuation to the wale direction of the intermediate knitted fabric portion using the knitting yarn from the far side yarn feeder 9 (8), a position of tangling the knitting yarn extending from the near side yarn feeder 8 (9) and the knitting yarn extending from the far side yarn feeder 9 (8) is shifted in a knitting width direction of the knitted fabric between the unit stitch rows adjoining in the wale direction.
3. The knitting method of the knitted fabric according to claim 1 or 2, wherein the knitted fabric to be knitted is a tubular knitted fabric.
4. A knitted fabric knitted using a flat knitting machine having at least one needle bed and a plurality of yarn feeders for feeding a knitting yarn to knitting needles of the needle bed, the knitted fabric including three knitted fabric portions continuing in a wale direction of the knitted fabric; wherein assuming the three knitted fabric portions are a lower knitted fabric portion, an intermediate knitted fabric portion, and an upper knitted fabric portion in order from a lower side of the wale direction, the lower knitted fabric portion and the upper knitted fabric portion are formed by one knitting yarn; and a cross-over yarn portion 7 connecting a stitch at a termination of the lower knitted fabric portion and a stitch at a starting end of the upper knitted fabric portion of the knitting yarn goes out from a back side

to a front side and again to the back side of the intermediate knitted fabric portion to be tangled to a sinker loop of each stitch row lined in the wale direction configuring the intermediate knitted fabric portion.

Fig. 1

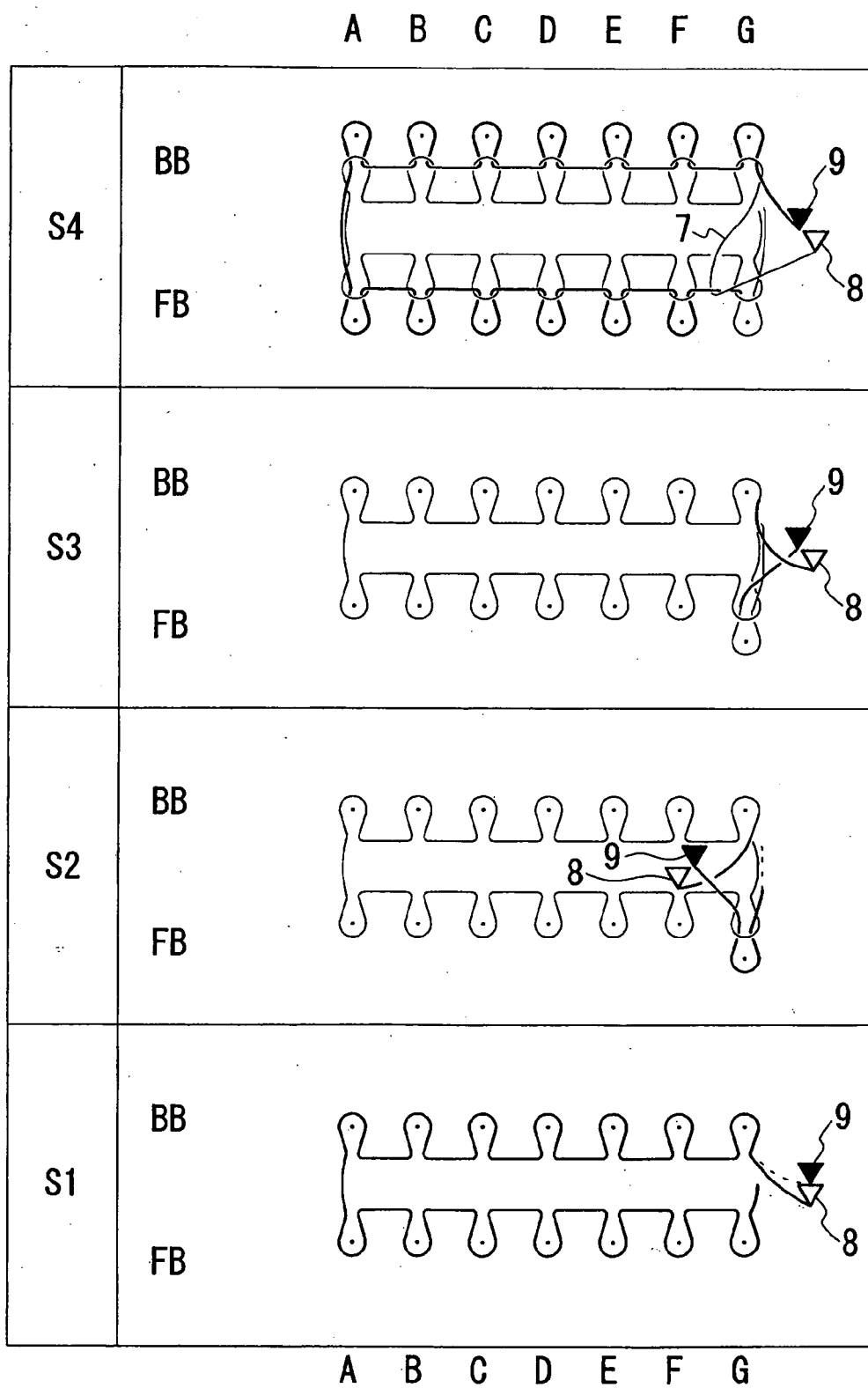


Fig. 2

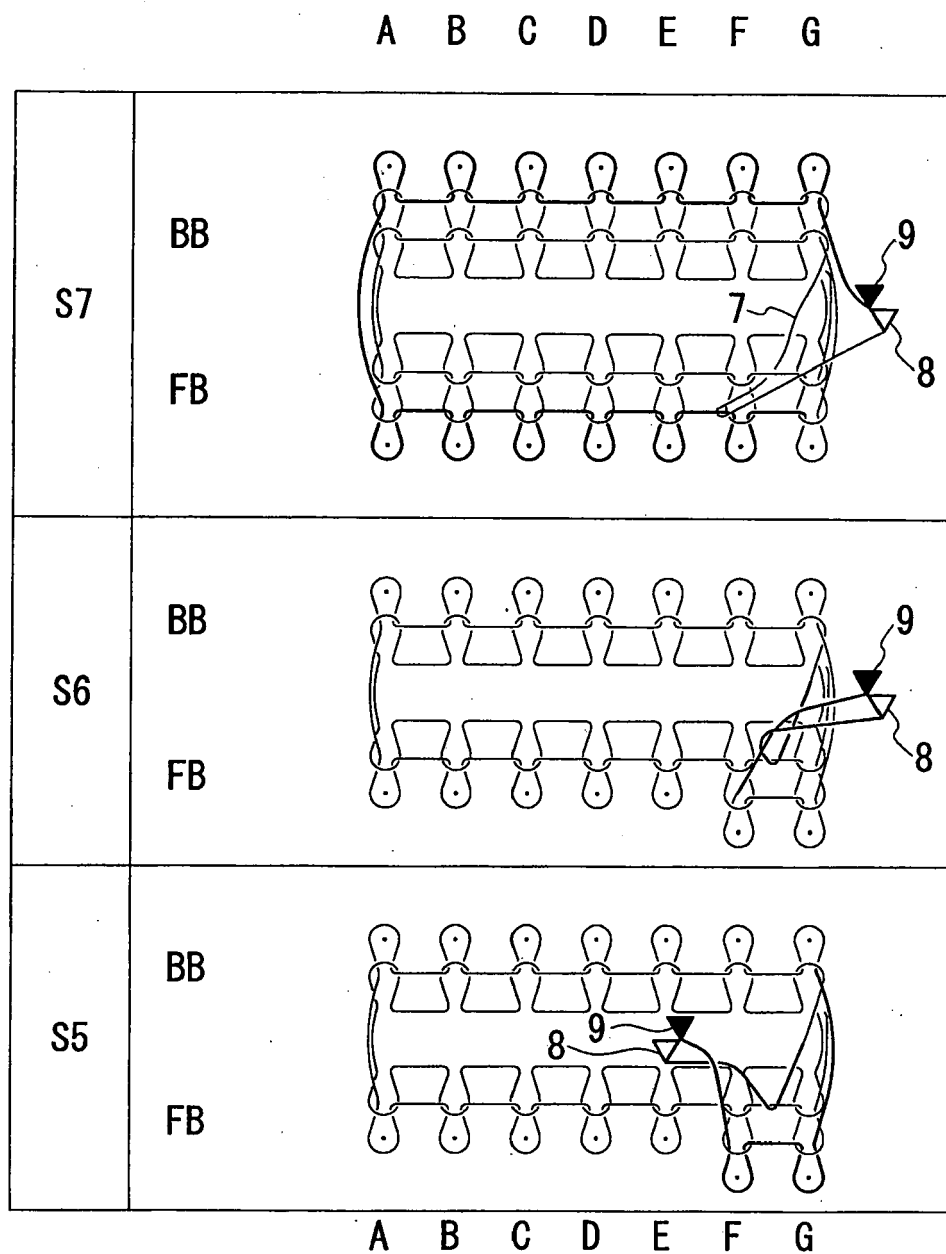


Fig. 3

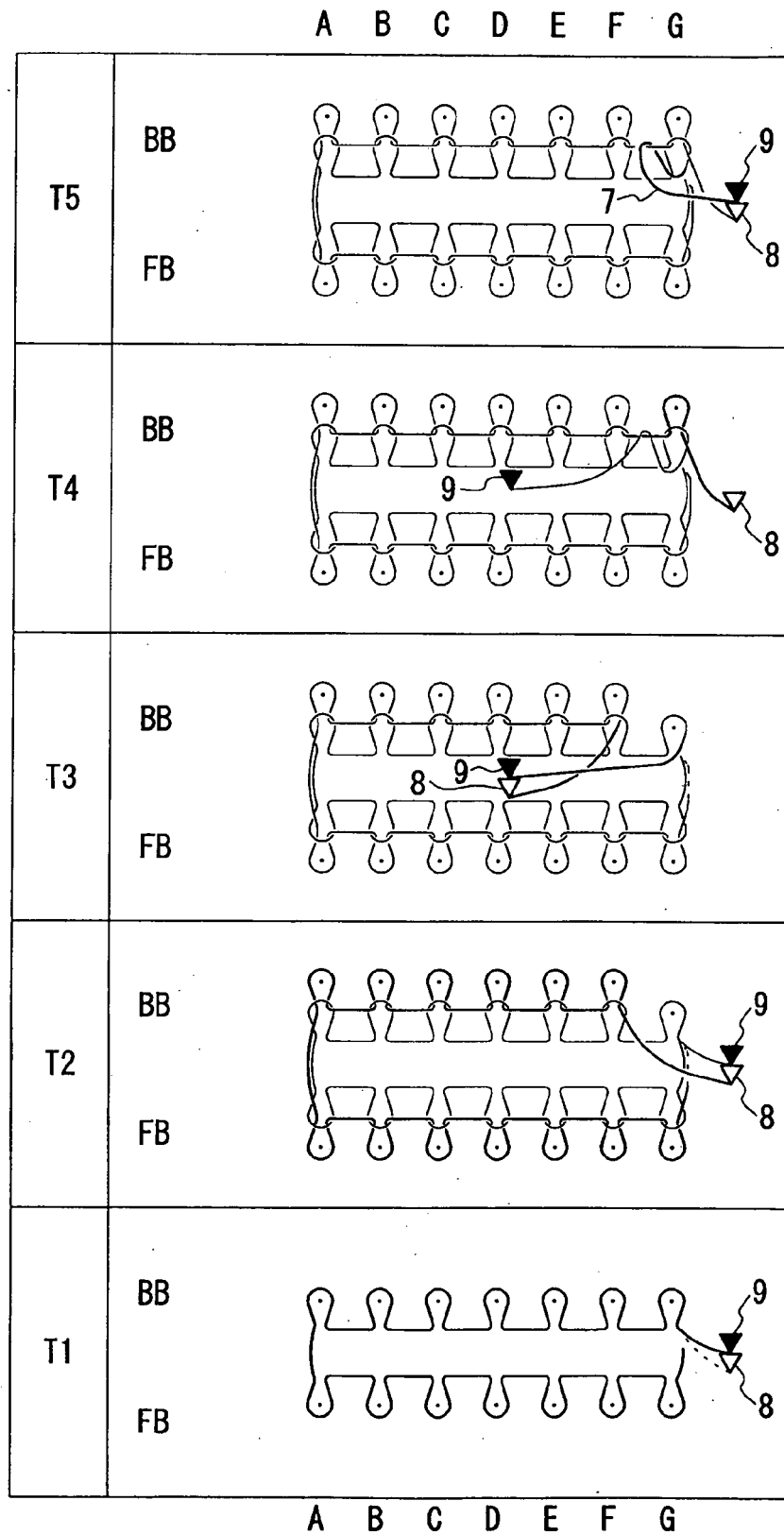
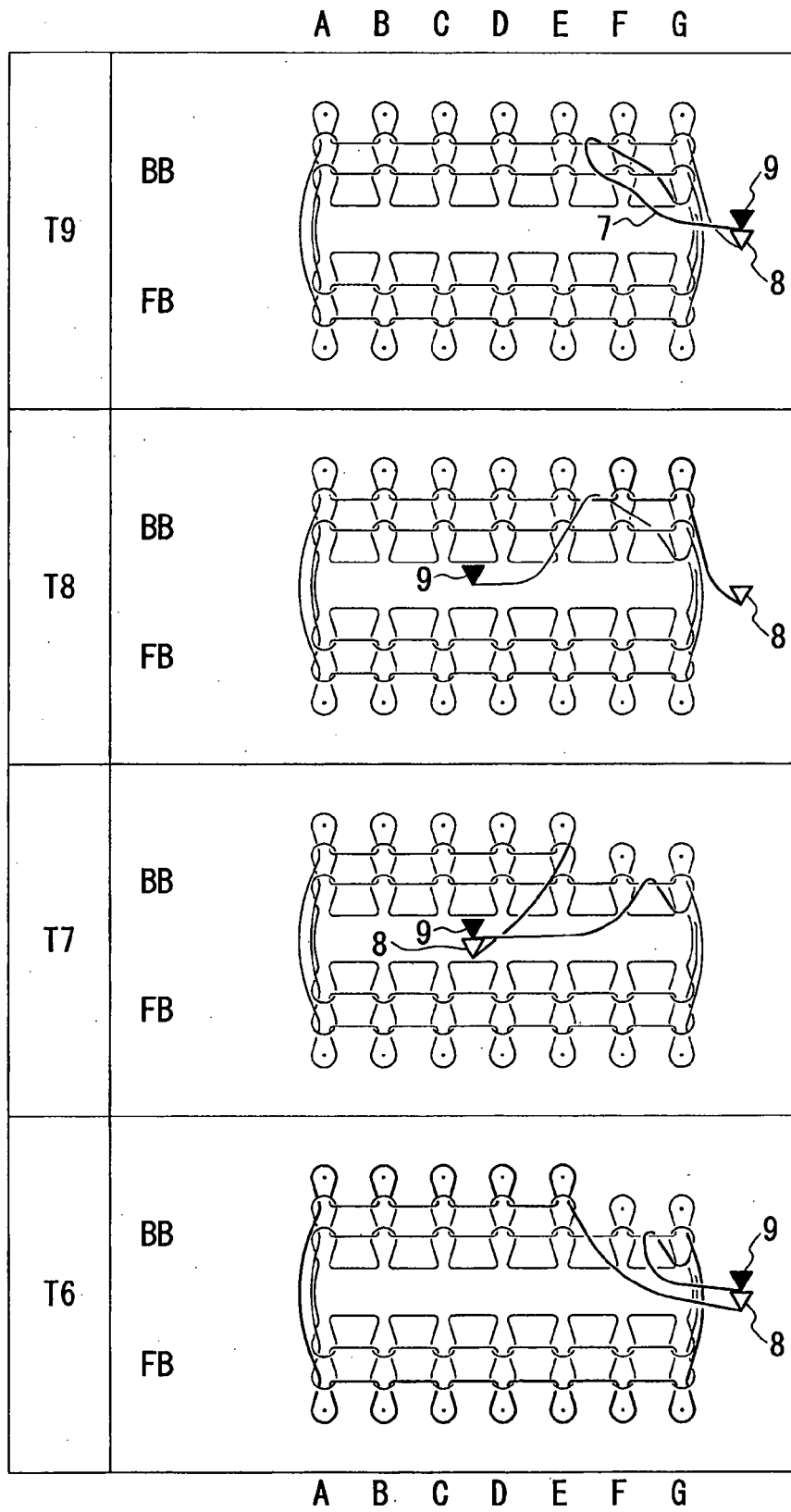


Fig. 4



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 4002870 B [0007]