



KNITTING WITH YOUR



SINGER*



THE SUPERB NEW KNITTING
MACHINE WITH A FAMOUS NAME



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MACHINE WITH A FAMOUS NAME

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You have become the happy owner of a
SINGER KNITTING MACHINE.

Solidly built, well designed, your Singer Knitting Machine will enable you to make up knitted garments for all your family.

It will give you pleasure, whilst also saving you time and money.

This booklet is aimed at familiarising you with your new machine and to be your guide in obtaining the best results ; it contains practical advice for knitting, together with a selection of stitches which you may vary, to make any pattern you wish.

Ask your Singer Centre about the Singer Knitting Club where you can obtain help and advice concerning all aspects of knitting.

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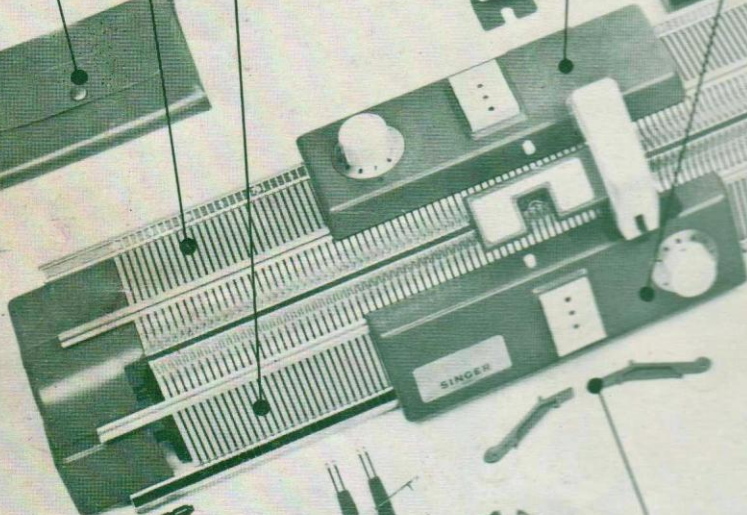
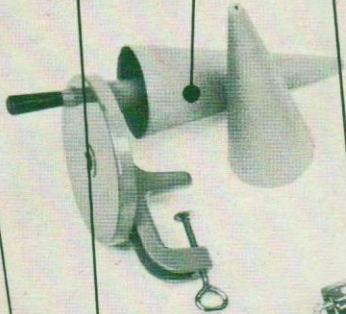
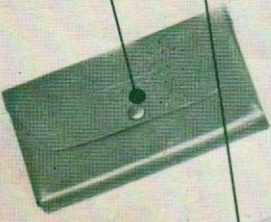
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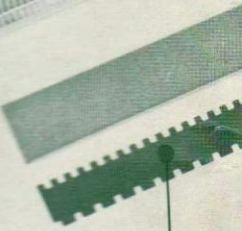
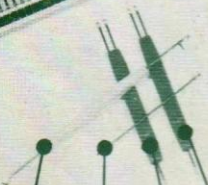
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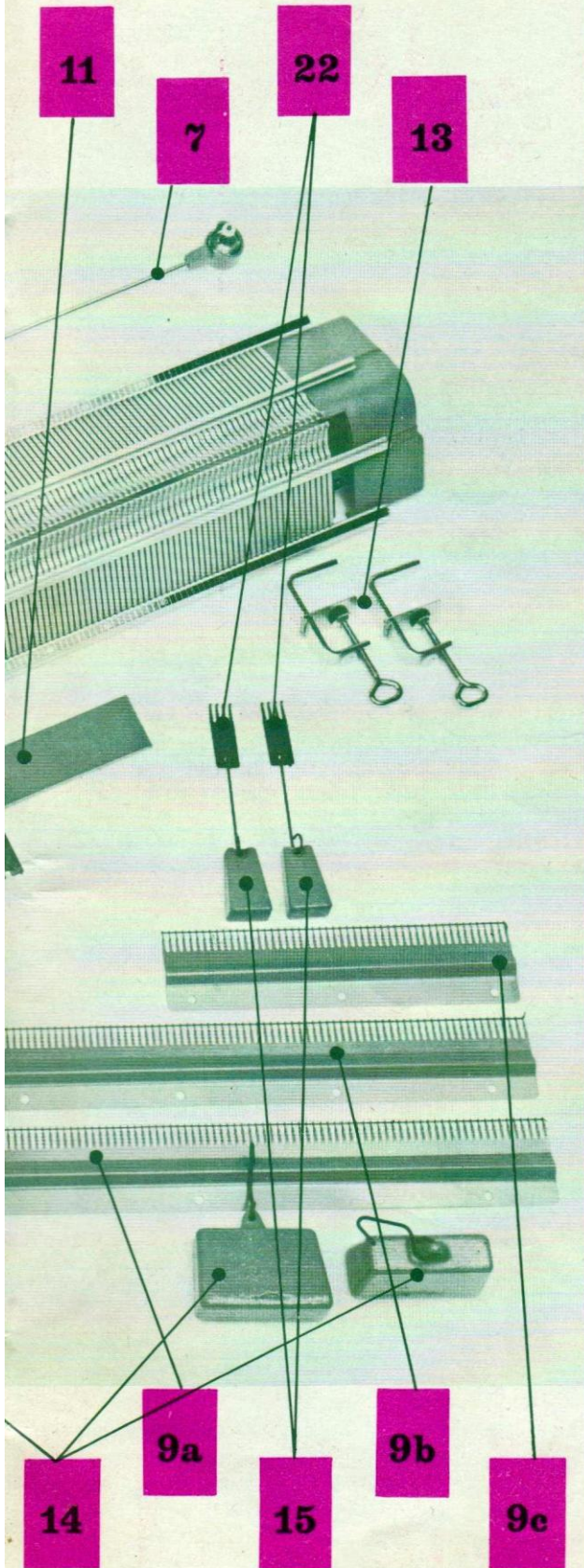
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12



THE MACHINE AND ITS ACCESSORIES



- | | |
|-----|--|
| 1 | BACK BED |
| 2 | FRONT BED |
| 3 | NEEDLES |
| 4 | BACK CAM BOX |
| 5 | FRONT CAM BOX |
| 6 | WOOL CARRIER |
| 7 | TENSION ARM |
| 8 | RACKING LEVER |
| 9 | ACCESSORIES |
| 9a | COMB (180 stitches) |
| 9b | COMB (100 stitches) |
| 9c | COMB (50 stitches) |
| 10a | GREEN TRANSFER TOOL
(1 eyelet needle
+ 2 eyelet needles) |
| 10b | RED TRANSFER TOOL
(1 eyelet needle
+ 2 eyelet needles) |
| 10c | YELLOW TRANSFER TOOL
(1 latch needle
+ 1 hook) |
| 11 | RULER (for pushing needles) |
| 12 | NEEDLE SELECTOR |
| 13 | CLAMP (2) |
| 14 | WEIGHTS (5) |
| 15 | EDGE WEIGHTS (2) |
| 16 | TABLE PROTECTORS |
| 17 | 2 CAMS FOR TWO COLOURED
KNITTING |
| 18 | 2 WHEELS USED FOR THICK
WOOL |
| 19 | ROW COUNTER |
| 20 | WALLET FOR TOOLS |
| 21 | DOUBLE ENDED EYELET TOOL |
| 22 | COMBS FOR EDGE WEIGHTS |
| 23 | WOOL WINDER |

SETTING UP **THE** **MACHINE**

(Fig. 2)



Fig. 2

Press the two table protectors on to the base of the machine, and secure the machine to a table using the two clamps.

Make sure that the surface of the

table is flat and that the table is rigid, then fasten the stand for the wool holder on to the centre of the back bed. Insert tension arm and span wire.

ROW COUNTER

This slides into an opening on the cam box on the back bed. Each time the cam box passes the wool holder, a row is registered on the

counter. It is possible to reset the counter or adjust the number of rows by turning either of the two white knobs found on the side of the counter.

WOOL WINDER (Fig. 3)

The wool winder consists of the winder, which clamps on to a flat surface, and two cones with red plastic collars.

The winder will first need to be assem-

bled: Remove the spring clip from the metal spindle, push on the wheel with handle attached, then replace the spring clip. This will now hold the wheel in place.



Fig. 3

Proceed by placing the red collar on to the cone, putting the end of the wool between the collar and cone, then firmly push the cone on to the

winder. Begin to wind the wool on to the cone, tensioning the wool between the fingers.

DO NOT LET THE WOOL RISE MORE THAN HALF WAY UP THE CONE

RACKING LEVER (Fig. 4)

Slide the lever into the hole found under the left hand end-piece, until it connects into place.

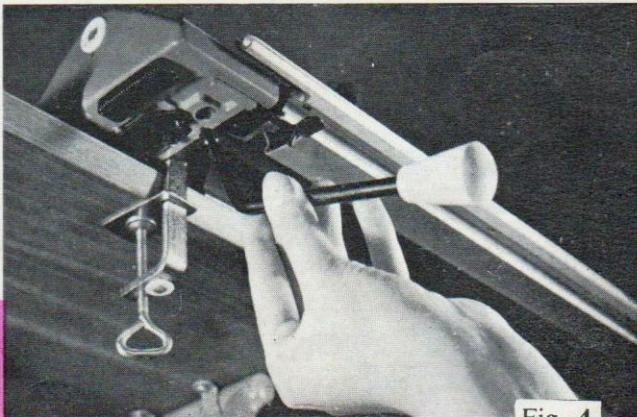


Fig. 4

SECTION 1

✿ GETTING TO KNOW YOUR MACHINE

THE TENSION ARM AND SPAN WIRE

Correct position is when the span wire is springy as indicated in the picture. (See fig. 15 page 14).

This is achieved by turning the white knob backwards.

THE POSITION OF THE BEDS

The machine has two beds, the front and the back, which hold the needles and rails on which the cam boxes slide.

The flow combs are the butts along the edge of each bed.

FRONT BED - FOUR POSITIONS

- 1 **Normal Position**—For knitting rib, and stitches using both cam boxes.
- 2 **Open Position**—To look at the knitting, increase, decrease cast off, ect. Push the two catches found under the front bed, one at each end, towards the centre and the bed will slide down into position. Push the front bed up to return to normal position.
- 3 **Lower Position**—Checking and counting rows. Push the two catches towards the centre, then press them down and the bed will slide down into position. To return, release the two catches, holding them open, whilst pushing the bed back into normal position.
- 4 **Upper Position**—Stocking stitch and stiches using only one cam box. Release the catches and push the bed upwards against the back bed until it clicks into position.

ADJUSTING THE SPACE BETWEEN

THE TWO BEDS (Fig. 5)

At each end of the machine is found a white disc with numbers indicating the space between the two beds. When on 6 the space is at its widest, ready for using thick wools. To change the numbers the racking lever is pushed into the hole until it connects, then as the lever is turned each number will click into place opposite the red

dot. The same number must be indicated at each end of the bed. Changing the space enables the different ply wools to be knitted in rib at a correct tension. Below is a table giving the numbers for the different plys. When knitting using the back bed only, the bed position should always be on 5 or 6.

Fine, 2 and 3 ply wool	3 or 4
4 ply wool	5
Double Knitting Wool	6

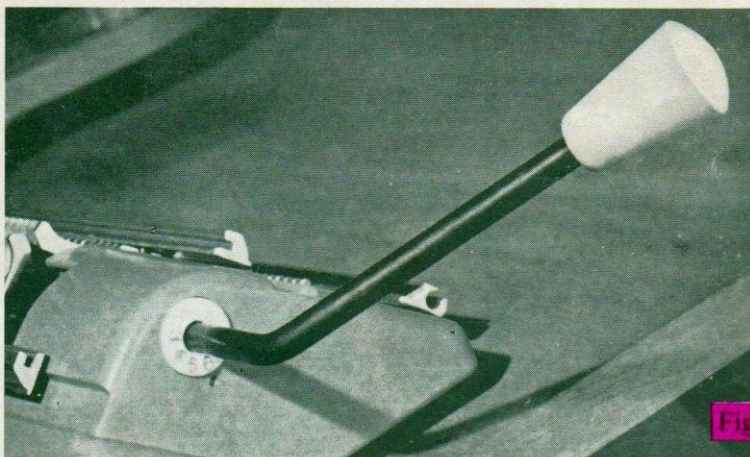
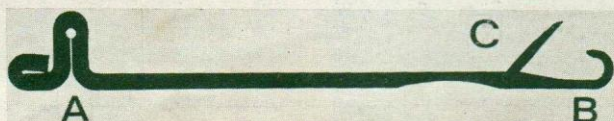


Fig. 5

NEEDLE POSITIONS

- The machine has 360 needles.
- The needle consists of (A) a heel (B) a crotchet hook which holds the stitch and (C) a movable latch.



FOUR POSITIONS

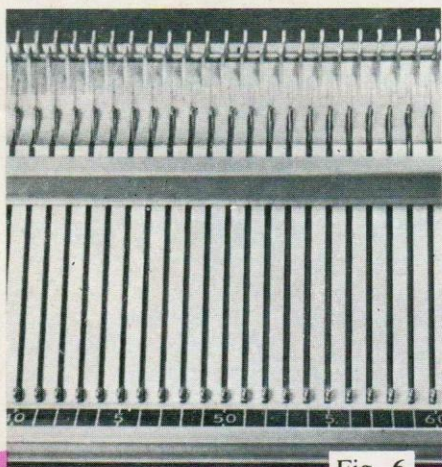


Fig. 6

- 1 Non working position—The heel of the needle rests against the numbered scale (Fig. 6).

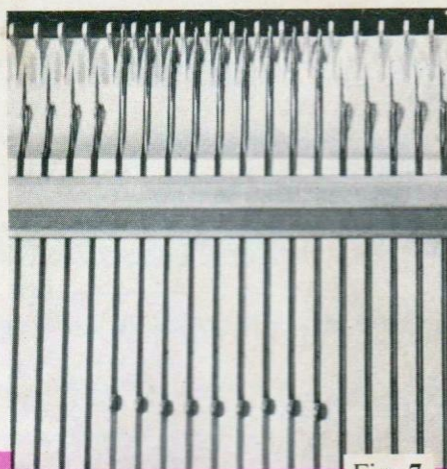


Fig. 7

- 2 Working position —The hook of the needle with the latch open, projects just beyond the flow combs (Fig. 7).

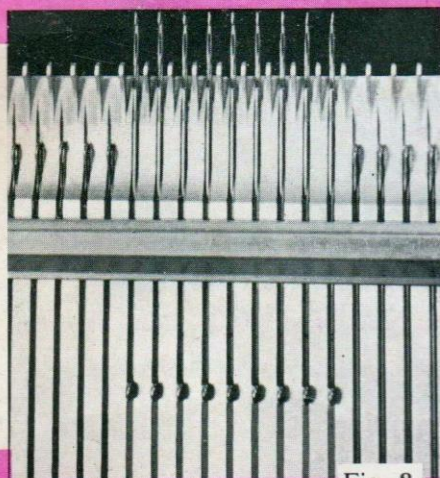


Fig. 8

- 3 Working position 2 - The hook of the needle with the latch open, projects just beyond the needle beds (Fig. 8)

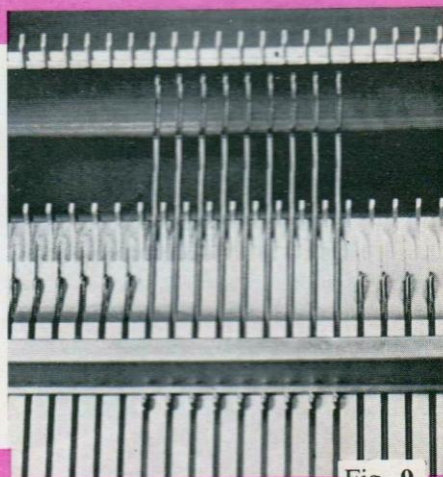


Fig. 9

- 4 Holding position—The heel of the needle rests against the top slide rail (Fig. 9).

The grouping and selection of needles helps to form the different stitch designs.

FLOW COMBS

The flow combs allow the wool to slide from one needle hook to another. For knitting rib, stocking stitch, etc., the flow combs on both beds should be opposite each other (Fig. 10).

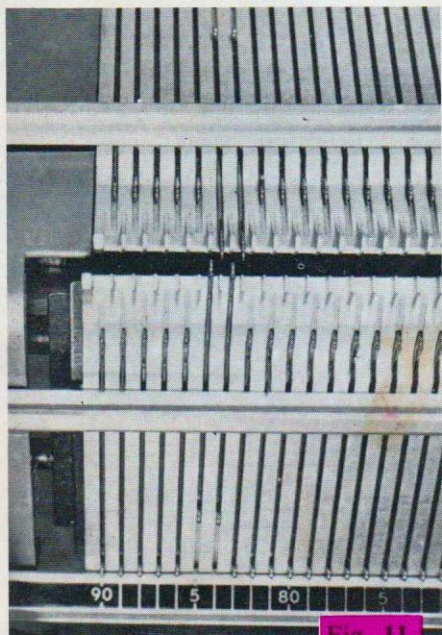


Fig. 10

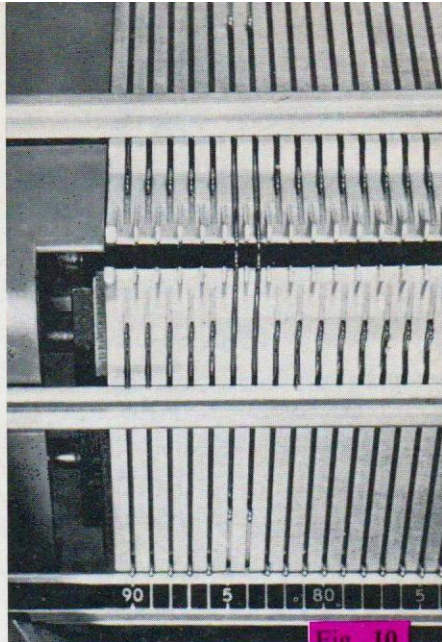


Fig. 11

For knitting a rib stitch using every needle on the back and front beds and when knitting racking patterns the front bed should be moved one position so that the flow combs are in between each other (Fig. 11).

The front bed is moved by turning the racking lever one position either to left or to right.

THE CAM BOXES

The knitting is done by moving the cam boxes over the needles from one side to the other and back.

- The Back cam box can be used by itself for stocking stitch and its derivatives (Fig. 12).
- The Back cam box and Front cam box together are used for knitting ribbing, circular knitting and most fancy stitches.

The cam boxes are held together by a lever and catch. On the Front cam box there are two catches, the first towards the centre, for all types of knitting and the right hand catch for circular knitting only. The latter is marked by a green dot (Fig. 13).

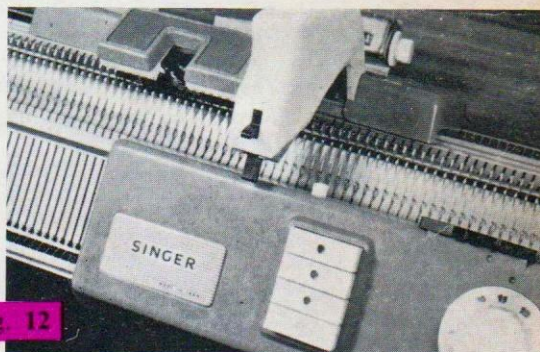


Fig. 12

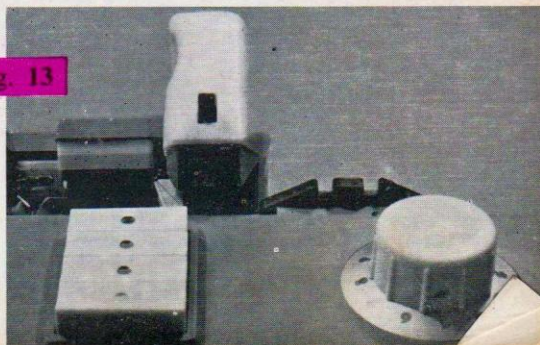


Fig. 13

THE KEYS (Fig. 14)

Pressed down, these select the cams which make the needles move. Different keys produce different stitches:

- 1 The Blue key brings needles that are in holding position into working position.

- 2 The Red key is for stocking stitch and ribbing.

- 3 The Green key is for circular knitting.

- 4 The Yellow key helps form a loop for some fancy stitches.

- 5 The Green and Yellow keys are used together for single and double sided fisherman's rib patterns.

- 6 To cancel the keys press the White button found above the keys.

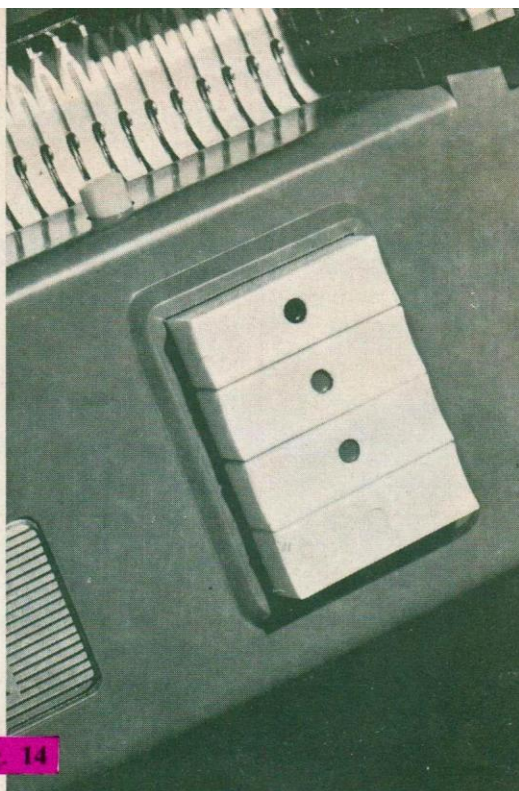


Fig. 14

- 7 A combination of different keys on the two cam boxes produces a wide variety of stitch patterns.

TENSION DIAL

- This controls the pliancy of the knitting.
- For a tight stitch turn the dial towards 1.
- For a loose stitch turn the dial towards 12.

TENSIONS

1/1 RIB

WOOL

TENSION NUMBER

2 ply

1-2

3 ply

2-3

4 ply

3-4

Double Knitting

5-6

STOCKING STITCH

WOOL

TENSION NUMBER

2 ply

5-6

3 ply

6-7

4 ply

7-8

Double knitting

8-12

For single sided and double sided Fisherman's rib patterns the tension is 2 or 3 numbers higher than 1/1 ribbing.

For close ribbing the tension is one number more than 1/1 ribbing.

HINTS

- 1 Pass the cam box over the edge stitch until you hear the click of the cams. This ensures that the edge stitch is knitted.

- 2 Never try to reverse the cam boxes when they are in the middle of a row.

- 3 To obtain a symmetrical pattern and to be able to count increasings and decreasings, etc., always use the centre point on the graduated scale placing the knitting evenly on either side.

- 4 Watch the wool as one cone is very quickly knitted. To start a new cone of wool, first fasten the finished end round the plastic stud at the same side as the cam box. Re-thread the machine with the new wool, fastening it on the same side. Do not join in the middle of a row.

- 5 If the cam boxes jam in the middle of a row, turn the tension dial to '1' on each cam box then gently ease the cam boxes across. This means one tight row will have been knitted but it is a simple matter to unpick this row by pulling the wool horizontally to the machine and lifting the previous row of stitches back on to the needles. Afterwards, return the cam boxes to the other side with the keys cancelled and adjust the row counter.

- 6 Always watch the edges of the knitting and, if necessary, hang on the edge weights, moving them up the knitting every 20 to 30 rows.

- 7 If the end stitches fall off the needles check that the span wire is correctly tensioned. Insufficient tension will cause a loop to form at the beginning of each row.

SECTION 2

❖ KNITTING

NEEDLE SETTING

I = needle in working position.

• = needle in non-working position.

RIBBING 1/1

Flow combs opposite each other, bed in normal position, and cam boxes to the right. Using the needle selector bring every other needle into

working position on the back bed. Then every other needle on the front bed, making sure that these come in between the back bed needles.

BACK BED I.I.I.I.I.I.I.I.
FRONT BED I.I.I.I.I.I.I.I.

To align the needles pass the cam boxes with Red keys depressed across twice.

THREADING (Fig. 15)

After winding the wool on to the cone place the cone into the wool holder.

- 1 Slide the front bed down to open position.
- 2 Pass the wool between the two discs (Fig. 16).
- 3 Then through the end of the span wire.
- 4 Slip the wool between the two beds and fasten to the plastic stud found under the clamp on the right hand side.
- 5 Slide the wool through the wool-feed, which is found on the Back cam box between the brushes.
- 6 Replace the front bed into normal position.

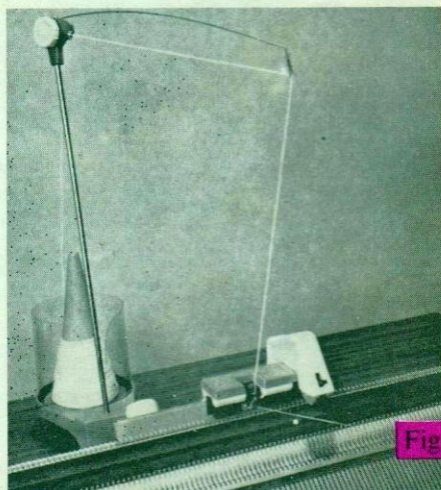


Fig. 15

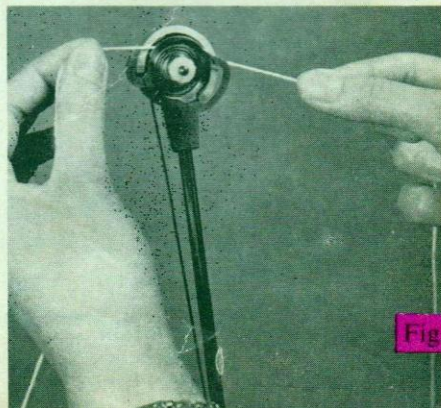
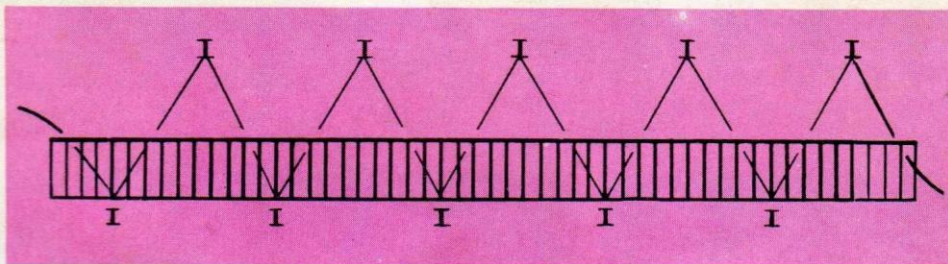


Fig. 16

CASTING ON

- Use both Back and Front cam boxes—Red keys depressed (*tension 1 for fine wools up to 4 ply or 2 for thicker wools*).
- Pass the cam boxes from right to left.
- Pull out the wire from the mounting comb.
- Insert the comb between the two beds so that the teeth pass between the strands of wool, which is stretched between the needles.



Replace the wire and hang on the weights.

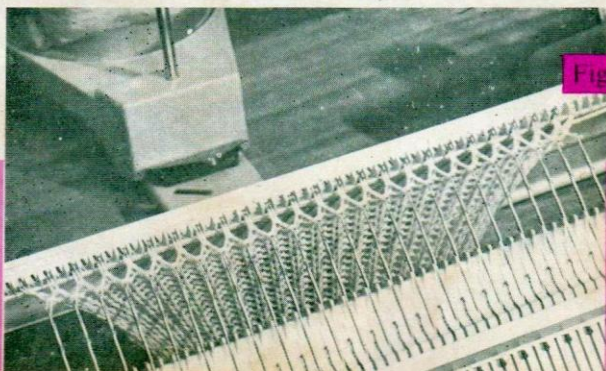
Depress the Green keys in order to knit 2 circular rows and turn the tension dials to:

- Number 2 for fine wool or 3 for thick wool. Pass cam boxes across and back again.
- Number 3 for fine wool or 4 for thick wool. Pass cam boxes across and back again.
- Return the row counter to 000 and regulate the tension for ribbing, (3 or 4) (see table on page 12).
- Depress the Red keys and knit. Pull the comb gently after the first row in order to see that it is correctly mounted.

LOOKING AT THE KNITTING USING LOWER POSITION (Fig. 17)

In order to examine the ribbing or knitting, slide the front bed into lower position (see page 8). When the bed is returned to normal position the front bed needles will be in holding position.

In order to knit the first row, pass the cam boxes across the needles, with the Blue key held down. The needles in holding position will then automatically knit down into working position.



TRANSFERRING STITCHES FROM RIB TO STOCKING STITCH

Using the transfer tool take the stitches from the front bed and place them on to the empty needles on the back bed. This is done by placing the red or green transfer tool on to the hook of the Front bed needle. Pull the needle upwards so that the stitch falls behind the latch (Fig. 18), then push the needle down allowing the stitch to slip on to the tool. Slide the empty Back bed needle up through the stitch held on the tool (Fig. 19).

Place the empty needles of the front bed into non-working position.

Regulate the tension to four or five numbers higher than for ribbing on the Back cam box, also depress the Red key.

Push the Front cam box to one side and slide the front bed into upper position. Knit stocking stitch using the Back cam box only.

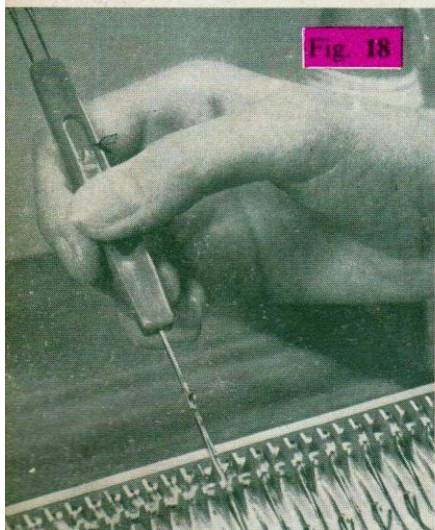


Fig. 18

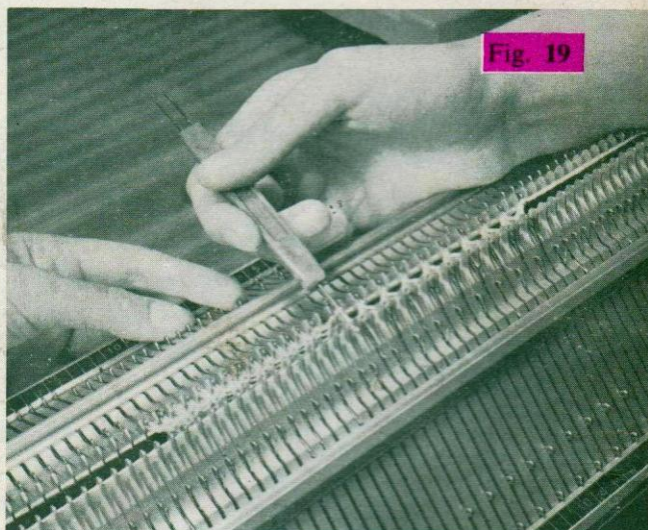


Fig. 19

INCREASING ONE STITCH

Place 1 needle on the same side as the cam box into working position.

OR

Take off the first stitch and place it on to the next empty needle. Using a transfer tool pick up the heel of the second stitch and place it on to the empty needle. (Fig. 20-21).

This can be done at each end of a row, also several stitches in from either edge, thus forming a fashioned increase

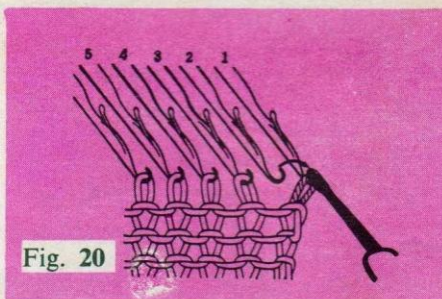


Fig. 20

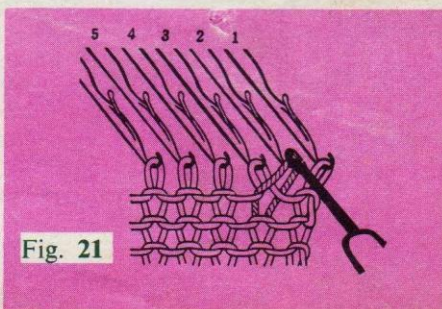


Fig. 21

INCREASING MORE THAN ONE STITCH

Front bed in open position. At the same side as the wool and cam box put into holding position the required number of extra needles. Take the heel of the last stitch, then using the yellow crotchet tool make a chain around each needle in holding position. Put the last stitch on the last needle. (*This is similar to chain casting on, see page 39*). Take a piece of contrasting wool and pass it through the chain

of every fifth new stitch, not round the needle, and from this hang the edge weights. (*This is only necessary if more than five stitches are being increased.*)

Slide back the front bed. Knit the first row with the Blue key held down so that the needles in holding position knit (Fig. 22).

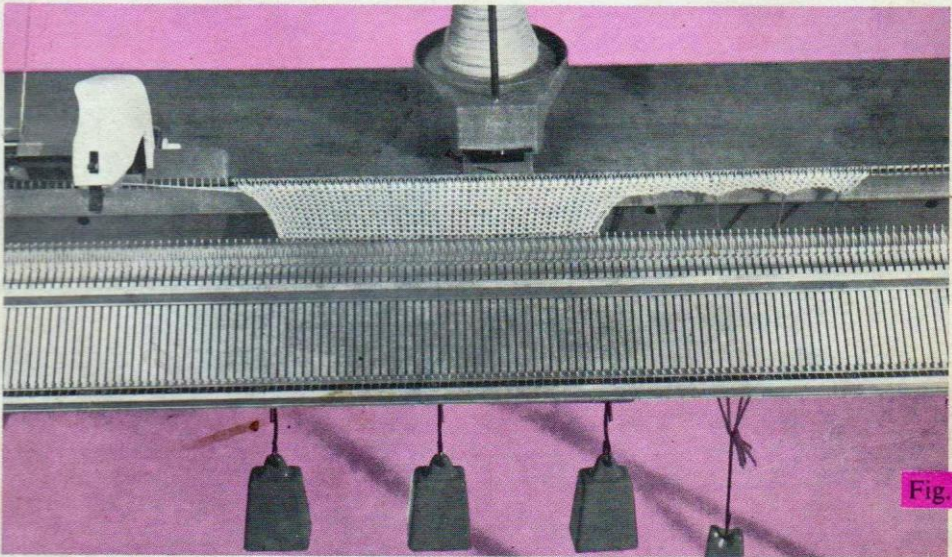


Fig. 22

DECREASING ONE STITCH

Using a green or red transfer tool, take off the first stitch and place it on to the next needle. Put the empty needle into non-working position.

OR

Using the double end of the transfer tool take off the first two stitches, then replace them on to the second and third needles so that the third needle has two stitches on it. Place the first needle, which is now empty, into non-working position. This method gives a perfect edge, particularly for raglan decreases (Fig. 23-24).

Both these methods can be done at each end of the row.

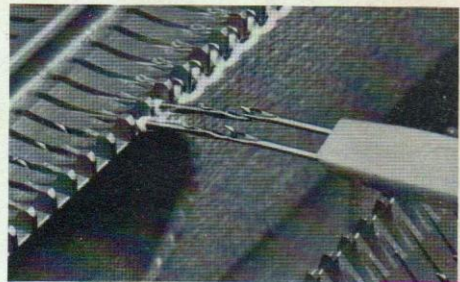


Fig. 23-24



DECREASING SEVERAL STITCHES

Take the wool out of the thread guide. At the same side as the cam box, using a transfer tool, take the first stitch and place it on to the second needle. Push the second needle into working position 2, place the wool across the open latch, then push back the needle so that the wool is pulled through the two stitches, thus forming one stitch. Place this stitch on to the next needle and repeat the same movements until the desired number of stitches have been decreased.

To avoid casting off too tightly when decreasing, lift the chain that has been made on to the first empty needle and at intervals along the row. Release when you have finished the decreasing. This method is mostly used for casting off stitches at armholes, etc. (Fig. 25).

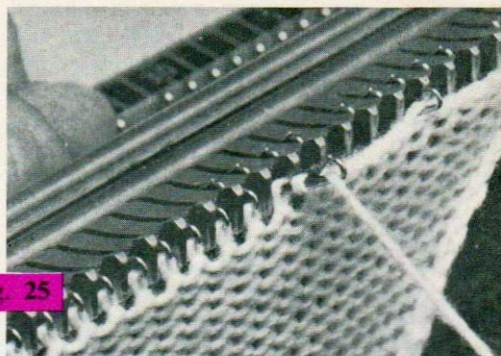


Fig. 25

ITALIAN OR RAGLAN

DECREASING (Fig. 26)

Place the 4th stitch on to the 5th, move up the other 3 stitches one position. Place empty needle into non-working position. This decreasing is made every two or three rows and if desired at each end of the row.



Fig. 26

DOUBLE DECREASING

(Fig. 27)

Using the double end of the transfer tool take the 3rd and 4th stitches and place them on to the 5th and 6th, move up the other two stitches and place the two empty needles into non-working position.

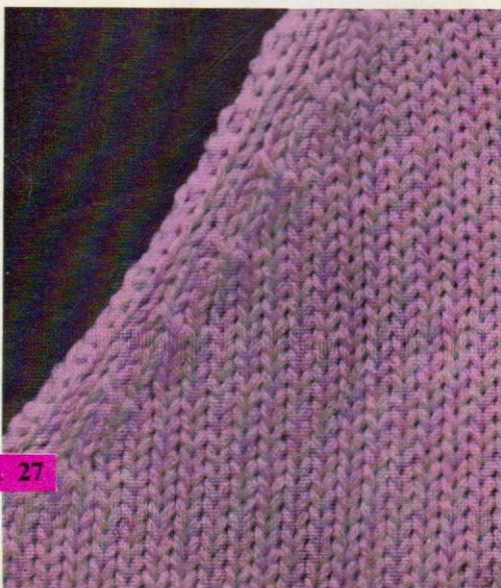


Fig. 27

BIAS DECREASING

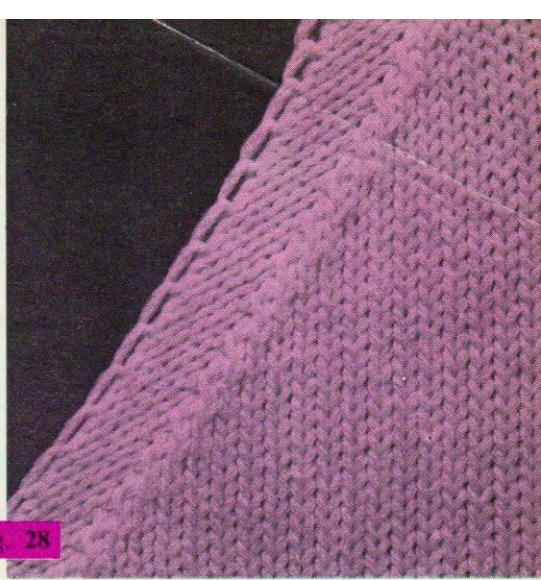
(Fig. 28)

Using the double end of the transfer tool take the 5th and 6th stitches and place them on to the 7th and 8th needles and move the other 4 stitches up two positions.

Place the first empty needle into non-working position ; the second will pick up a loop when the first row is knitted. Only one stitch is decreased.

This decreasing must be made at the same side as the cam box.

Fig. 28



CHAIN CASTING OFF-STOCKING STITCH (Fig.29)

The cam box is at the right hand side. Turn the tension dial four numbers higher than previously.

Pass the cam box to the left (*knitting one loose row*).

Starting from the right hand side using the latch needle of the yellow transfer tool, take off the first stitch and slip it behind the latch of the tool. Take off the second and knit it through the first.

Continue in the same way, knitting the third stitch through the second, etc., until all stitches are cast off.

It may be helpful at the beginning to push the first group of needles up so that the stitches fall behind the latches. Then push the needles back slightly so that the latches close.

It is then easier to slip the stitches off the closed latches rather than lift the stitches out of the hooks.

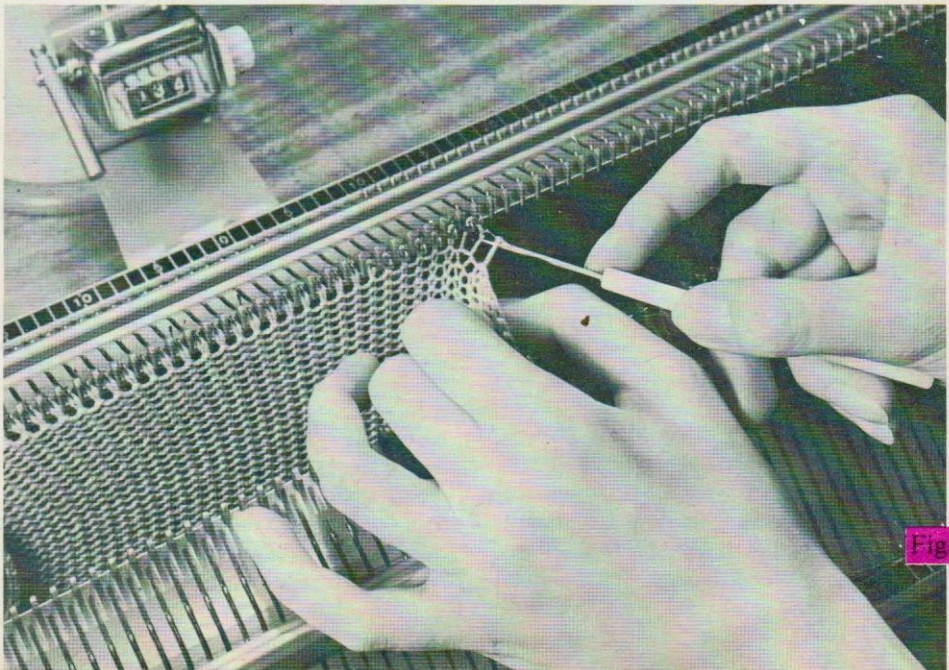


Fig. 29

CHAIN CASTING OFF I/I RIB

Proceed as for stocking stitch but after knitting the loose row transfer the front bed stitches on to the empty back bed needles.

❖ NEEDLES IN HOLDING POSITION -

KNITTING PART OF A ROW

SHOULDER SHAPING

(Fig. 30)

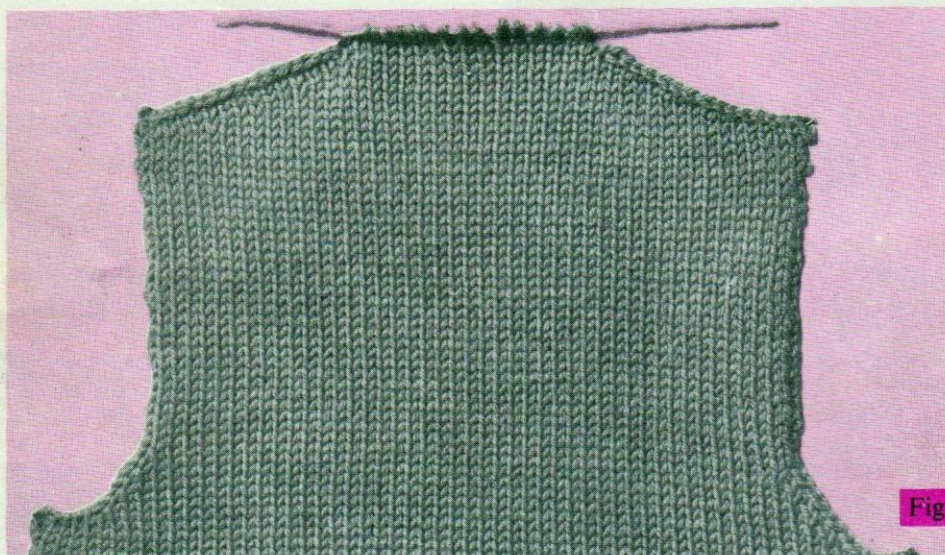


Fig. 30

On the side opposite to the cam box place the first three needles into holding position. Knit across. To avoid making a hole wrap the wool round the last needle in holding position (Fig. 31), place the three needles on the opposite side to the cam box in to holding position. Knit across. Wrap the wool round the last needle. Continue in this way until all the needles equal to the required length of the shoulder are in holding position. The centre stitches are for back of neck. Knit across to one side with the Red key depressed, holding the Blue key down when reaching the needles

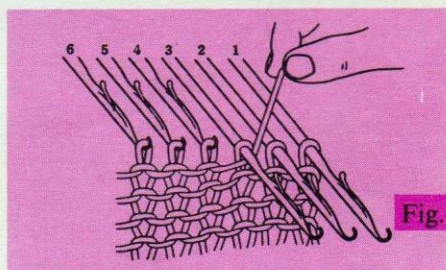


Fig. 31

in holding position. These will then automatically knit back. Repeat the last row in order to return the second group of needles in holding position but with the tension four numbers higher. Cast off the shoulders slipping the centre stitches on to a piece of wool.

DARTS OR SHAPING

Darts are knitted in the same manner and if necessary on one side only. For an even dart place groups of needles into holding position during the knitting of several rows, then return them a few at a time whilst

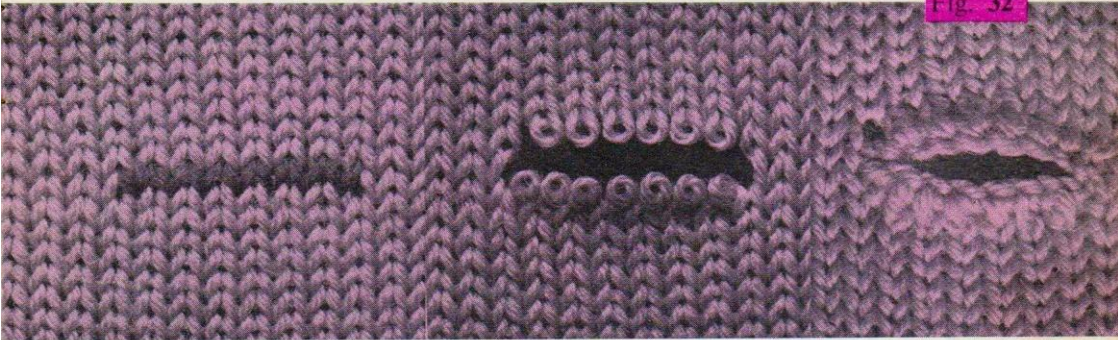
knitting the same number of rows. Another method is to place the needles forming the dart into holding position whilst knitting several rows, then return all the needles whilst knitting the next row.

HORIZONTAL BUTTONHOLES IN STOCKING STITCH (Fig. 32)

Place into working position 2, the number of needles required for the size of the buttons. Place a piece of contrasting wool across the open latches and push the needles back down into working position so that the wool knits through the stitches.

Put the two ends between the beds, then continue to knit. When the knitting is finished and sewn together pull out the contrasting piece of wool and finish off the buttonholes by hand.

Fig. 32



VERTICAL BUTTONHOLES IN STOCKING STITCH

Put into holding position on the side opposite the cam box the needles between the outer edge and the desired position of the buttonhole.

Knit an uneven number of rows, sufficient, for the size of the button. *(The cam box is now over the needles in holding position).*

Bring into holding position the needles which have just been in use and pass the cam box back over these needles.

Open the front bed and break the wool leaving a long enough end to finish the buttonhole by hand, then rejoin the wool on to the casting on eyelet.

(Fig. 33)



Fig. 33

Close up the bed, and put the needles that have not been knitted into working position 2. Knit the same number of rows as, on the other side of the buttonhole. Place the remaining needles into working position 2 and continue to knit across all the needles until the next buttonhole.

HORIZONTAL BUTTONHOLES IN RIBBING

For small buttonholes decrease two stitches. For example, place the stitch A on to needle B and stitch C on to needle D, leaving the empty needles in working position, as when the first row is knitted they will

automatically pick up a loop and make a stitch.

For a larger buttonhole, use the same method as for stocking stitch, either horizontal or vertical.

BACK BED
FRONT BED

 D A
 .I.I.I.I.I.I.I.
I.I.I.I.I.I.I.I
 C B

❖ NECK LINES

V NECK LINE (Fig. 34)

On the opposite side of the cam box put into holding position half the number of needles that are being used. Knit on the remaining needles.

Decrease 1 stitch at the neck edge on the first and every following 4th or 5th row, according to the depth of the neckline. Hang the edge

weights at the centre on the part that is being knitted. When completed, knit the other side the same way.

Do not forget to check the row counter in order that the same number of rows will be knitted.

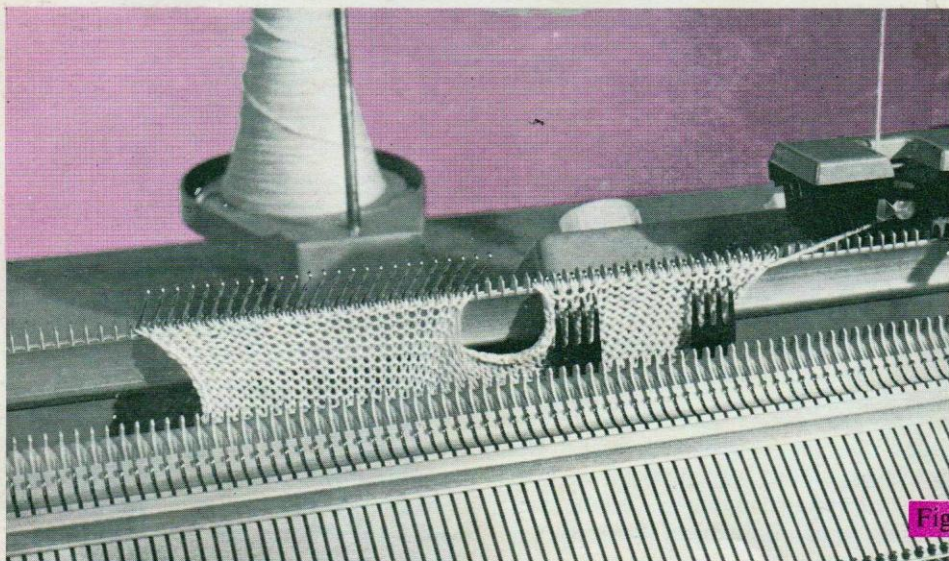


Fig. 34

CURVED NECK LINE (Fig. 35)

Proceed as for a V neck line by putting half the number of needles into holding position, then decrease as follows:

Knit 1 row

Decrease 5 stitches, Knit 2 rows

Decrease 4 stitches, Knit 2 rows

Decrease 3 stitches, Knit 2 rows

Decrease 2 stitches, Knit 2 rows

Decrease 1 stitch, Knit 2 rows

Knit the shoulder shaping as suggested by the pattern then repeat the decreasing for the other side.



Fig. 35

STRAIGHT OPENING

(Fig. 36)

This opening is useful for zips, etc.

Place one half of the needles into holding position. Knit on the remaining needles until the required length for the zip is obtained. Cast off, then knit the other side to match.

Do not forget to check the row counter.

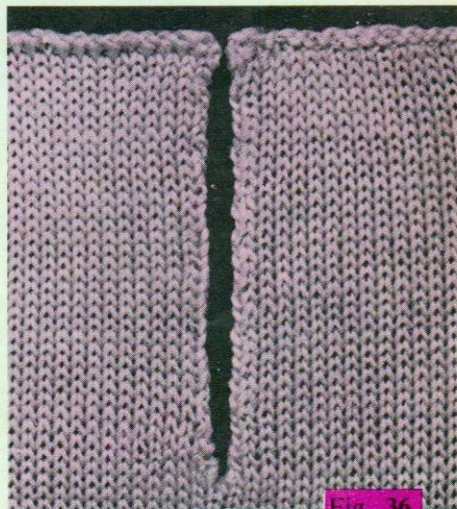


Fig. 36

UNPICKING ROWS

(Fig. 37)

Pull the wool horizontally to the machine, in order to tighten the stitches.

Then holding the wool firmly lift the stitches from the previous row on to the needles, using a rotating action. If more than one row needs to be unravelled, it is preferable to return the needles to their original position after each row.

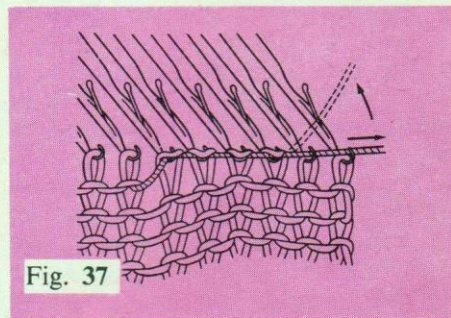


Fig. 37

❀ CHILD'S RAGLAN SHORT

SLEEVED JUMPER size 24" CHEST

Fig. 38

4 ozs, of 4 ply Fingering Wool

TENSION: Stocking Stitch 13 stitches and 18 rows = 2 ins. (8 approximate)
1/1 Rib 20 rows = 2 ins. (4/4 approxim.)

BACK:

- Cast on 84 stitches for 1/1 rib
- Using tension 4/4, knit 15 rows.
- Transfer the front needle bed stitches on to the empty back bed needles ● Change to tension 8, front bed in upper position ● Knit 63 rows of stocking stitch ● $8 \frac{1}{2}$ inches from commencement of rib ●

SHAPE RAGLAN:

- Cast off 6 stitches at the beginning of the next two rows, then decrease 1 stitch at each end of the next and every alternate row until 4 rows have been knitted from "Shape Raglan"
- 70 stitches will remain.

N.B.—Use the following method for raglan decreasing. Take the 3rd stitch off on to a transfer tool, then using a second tool move stitches 1 and 2 one position towards the centre, replace the 3rd stitch on to the 3rd needle. Place empty needle into non working position.

DIVIDE FOR NECK OPENING:

- Place 35 stitches at opposite side to cam box into holding position. Take the last 2 centre stitches in holding position on to a contrasting piece of wool* ● Continue with the raglan decreasing at the outer edge, whilst at the same time on the next 2 rows increase 1 stitch at the neck opening.
- Continue until 14 stitches remain 50 rows from commencement of raglan shaping ● Place 14 stitches on to a contrasting piece of wool*.
- Rejoin wool and replace the 2 stitches from the contrasting piece of wool on to the machine ● Repeat from * to * but on the first row depress the Blue key.

FRONT:

Work as for "Back" until the commencement of raglan shaping.

SHAPE RAGLAN:

- Cast off 6 stitches at the beginning of the next two rows ● Then decrease 1 stitch at each end of next and every alternate row (using same method as for "BACK") until 32 rows have been knitted 42 stitches remain.

SHAPE NECK:

- At the side opposite to the cam box place 15 stitches into holding position ● * Continue with raglan shaping and at the same time place 6 stitches from neck edge on to a contrasting piece of wool ● Knit 1 row ● Then take 1 stitch at neck edge on to the contrasting wool on the next and every following alternate row 4 times ● Continue with raglan shaping until 2 stitches remain ● 50 rows from beginning of raglan shaping ● Knit these 2 stitches together*.
- Rejoin wool and repeat from * to * using the needles in holding position
- On first row depress Blue key.

SHORT SLEEVES:

- Cast on 50 stitches for 1/1 rib,
- Tension 4 knit 5 rows ● Transfer the stitches, change to tension 8 for stocking stitch ● Knit increasing 1 stitch at each end of every alternate row until there are 66 stitches ● Continue until 18 rows have been knitted.

SHAPE RAGLAN:

- Cast off 6 stitches at the beginning of the next 2 rows ● Decrease 1 stitch at each end of next and every alternate row until 6 stitches remain, 50 rows ●
- Take the 6 stitches on to a piece of contrasting wool ●



Fig. 38

TO MAKE UP:

● Press all pieces and sew up raglan seams except left back seam.

NECK BAND:

● With wrong side of work facing place on to the back needle bed the 6 stitches from left sleeve, the 50 stitches from front neck, 6 stitches from right sleeve, 14 stitches from right back neck on to the next 12 needles, turning the last two stitches at neck opening back so that there will be two stitches

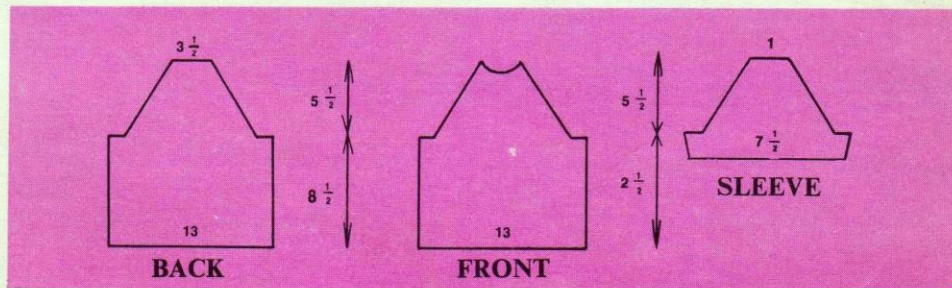
on the last two needles, 74 stitches in all ●* Transfer every alternate stitch to the front needle bed for 1/1 rib ● Using tension 4 knit 8 rows.

● Knit 1 loose row ● Cast off using chain method*.

● Place the 14 stitches from left back on to 12 needles (as for right back).

● Repeat from * to * ● Sew up left back raglan, side and sleeve seams.

● Sew in zip.



SECTION 3

❖ SINGLE SIDED FISHERMAN'S RIB

(Fig. 39)

Needle Setting

$\frac{.I.I.I.I.I}{I.I.I.I.I}$

Flow combs opposite
(See page 11)

Back cam box - Red key

Front cam box - Green and Yellow keys

The tension is two or three numbers higher than ordinary rib.

N.B.—The needle setting is important. The first stitch on the right hand side is on the back bed and the first stitch on the left hand side is on the front bed. If this setting is changed, the end stitches will fall off the needles or the end stitch would have to be placed into working position 2 on every other row.

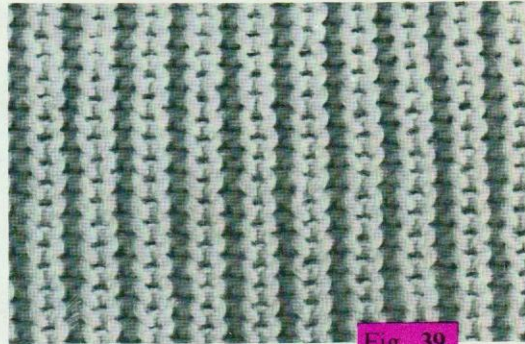


Fig. 39

DOUBLE SIDED

FISHERMAN'S RIB

(Fig. 40)

The same needle setting and tension as above, but on both cam boxes the Green and Yellow keys are depressed.

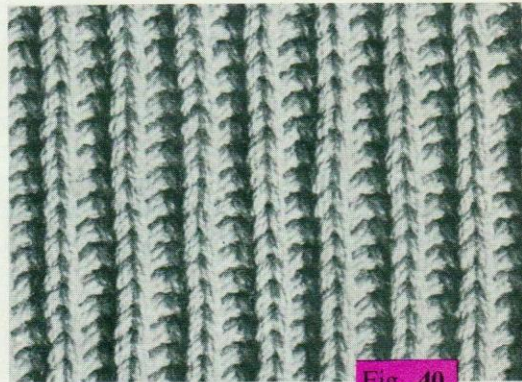


Fig. 40

INCREASING - FISHERMAN'S RIB

It is necessary to increase 2 or 4 stitches at one side, in order to keep the continuity of the needle setting and rib. Place the first stitch on the back and front needle beds on to the next

empty needles. Pick up the heel of the next two stitches and place them on to the first needles. This can be done at either end of a row.

DECREASING - FISHERMAN'S RIB (Fig. 41)

Take the first stitch off the back bed and place it on to the second stitch and repeat on the front bed. This can be done at either end of a row. Place the empty needles into non-working position.

RAGLAN DECREASING

Place the 3rd stitch on to the 4th on the back bed and move the 1st and 2nd stitches towards the centre. Place the empty needle into non-working position and repeat on the front bed.

DECREASING

SEVERAL STITCHES

Use the same method as for stocking stitch.

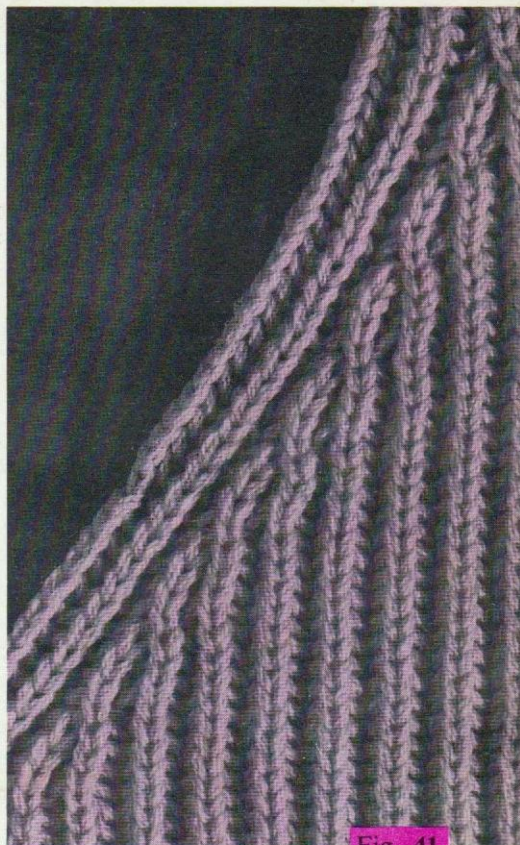


Fig. 41

NEEDLES IN HOLDING POSITION

Place into holding position the needles on the side opposite to the cam box without changing the setting. When returning the needles it is necessary

to use the transfer tool to place the needles into working position, otherwise an incorrect row will be knitted making an error in the pattern.

$$\begin{array}{c} \text{x x x} \\ \text{.I.I.I.I.I.I.} \\ \hline \text{.I.I.I.I.I.I.} \\ \text{x x x} \end{array} \quad \text{X} = \begin{array}{l} \text{Needles in holding} \\ \text{position - cam boxes} \\ \text{at right hand side} \end{array}$$

BUTTONHOLES

The same method as for stocking stitch.

SECTION 4

❖ POSITION OF THE FLOW COMBS

There are two positions:

- 1 Flow combs opposite when the needles are face to face, this is used for circular knitting or on patterns where every other needle is set, such as 1/1 rib.
 - 2 Flow combs alternate. This allows the needles on the back and front beds to be knitted together without the needles hitting each other. This is used for close ribbing and racking patterns. To displace the flow combs turn the racking handle one position either to right or left.
-

TRANSLATION

This is for knitting racking patterns. To obtain one translation turn the racking handle two positions. To knit a pattern, a needle on the front bed has to cross a needle on the back

bed, thus two moves are made; one, opposite a needle, two, opposite a flow comb. It is possible to make six translations of the front bed, in either direction, left and right.

CLOSE RIBBING

This is a 1/1 rib stitch but knitted on every needle, making a firmer and closer rib. It is mainly used for front bands, collars and other finishings.

CASTING ON

Setting:

<u>Back Bed</u>	<u>I I I I I I I I I I I I I I I I</u>	<u>Red Key</u>
<u>Front Bed</u>	<u>I I I I I I I I I I I I I I I I</u>	<u>Red Key</u>

Flow combs alternate

With Red keys depressed and tension dial on 2 or 3, take the cam boxes across. Remove the wire from the mounting comb, place the comb between the beds and through the wool, replacing the wire and hanging on the weights. Turn the racking handle two notches so that the stitches are as in the diagram below.

Setting:

<u>Back Bed</u>	<u>I I I I I I I I I I I I I I I I</u>
<u>Front Bed</u>	<u>I I I I I I I I I I I I I I I I</u>

Knit 1 row which completes the casting on. To continue knitting keep the Red keys depressed and change to a tension one number lower than for normal ribbing.

CASTING OFF

Transfer the front bed stitches on to the back needles. There will now be two stitches on each needle. Then proceed as for decreasing several stitches (page 18); knitting through three stitches each time.

CIRCULAR KNITTING AND OPEN CASTING ON

Circular knitting is stocking stitch knitted in a circle and is used for socks, scarves, and skirts without seams.

To begin, put the same number of needles in working position on each bed, flow combs alternate, Red keys depressed, tension 1. Using a different coloured piece of wool, knit 1 row. Mount the comb and hang on the weights. Change the keys to Green and thread up with the correct wool.

Stocking stitch tension on Back cam box: flow combs opposite.

Tension 1 on Front cam box: lever on green slot.

Knit one row. Reverse tensions and knit one row. Continue knitting with stocking stitch tension on both cam boxes. When finished remove the comb and the different coloured wool which will leave the stitches open ready to be cast off by hand or slip the stitches down to form a hem.

CIRCULAR CLOSED CASTING ON

Proceed as for open casting on but after the comb has been mounted, the Green keys depressed and flow combs set opposite, join the correct wool on to the left hand casting on stud. Push up the first needle into knitting position 2, pass the wool under the needle then over the hook with the latch open, and pull the needle back down into working position. Continue along all the back bed needles then along the front. With stocking stitch tension on the Back cam box, tension 1 on the Front, place the needles in working position 2

on the back, in order to facilitate the passage of the cam box. Knit 1 row Reverse the tensions on the cam boxes and repeat for the front bed stitches. Change to the tension for stocking stitch and knit the number of rows desired. Remove the comb and different coloured thread.

N.B.—As the cam boxes are passed across the stitches twice in order to knit one complete circular row, the row counter will register twice the number of rows knitted.

SEMI CIRCULAR KNITTING

When the 180 needles on the back bed are not sufficient for the size to be knitted in stocking stitch, it is possible to knit using both beds. For example, 250 stitches in stocking stitch are needed, therefore, it is possible to knit 125 on the back bed

and 125 on the front bed with a join at one side.

Cast on as for open casting on for circular knitting, cam boxes on the left hand side. Set the flow combs and needles opposite each other with lever on the green slot.

Back cam box keys cancelled. Front cam box Red key:

}

Knit 2 rows.

Back cam box Red key. Front cam box keys cancelled:

}

Knit 2 rows.

Repeat these four rows. Note that the opening will be on the left hand side.

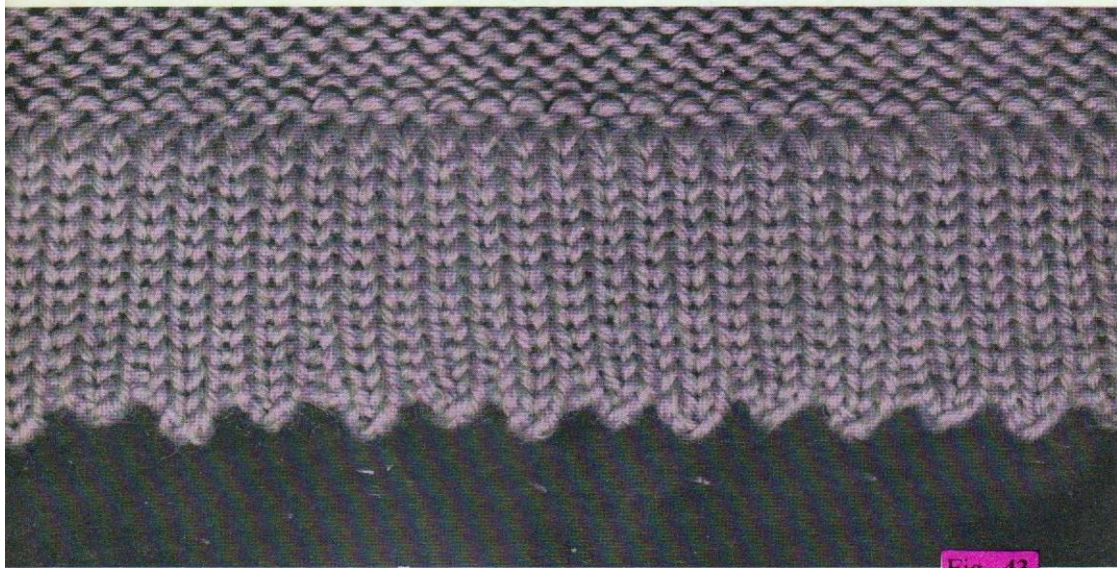


Fig. 43

SECTION 5

SIMPLE HEM IN STOCKING STITCH (Fig 42)

Start with an open casting on by putting into working position on the Back bed the number of needles required. Set the tension for stocking stitch, depress the Red key and put the Front bed into normal position. Hold the comb between the two beds tipping it slightly so that it rests against the Back bed. As the cam box is taken across, the comb will be behind the brushes and wool-feed. Also the comb must be held high enough to stop the needles from catching on the wire. Take the cam box across, let the comb descend and hang on the weights. Place the Front bed into upper position, then knit the amount of rows to twice the depth of hem.

Open the Front bed, hang the edge weights at the back of the knitting close to the needles in order that the ordinary weights can be removed.

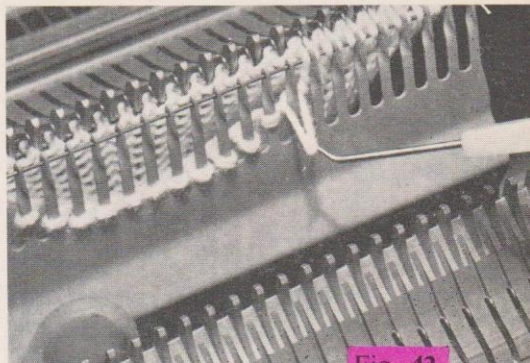


Fig. 42

Hold up the comb and with the aid of the yellow transfer tool lift the loops on the comb on to the corresponding needles. Re-hang the weights on to the comb, place the front bed into upper position and continue to knit.

HEM WITH PICOT EDGE (Fig 43)

Proceed as for a simple hem until one half of the number of rows have been knitted.

Transfer every second stitch to its adjacent needle, leaving the empty needles in working position, and knit

the remaining number of rows. Continue as for a simple border. Along the fold of the hem will form a picot edge which can be used for the edge of collars or borders where elastic needs to be passed through.

CIRCULAR HEM IN STOCKING STITCH

Cast on as for close ribbing, then press the Green keys for circular knitting.

Use stocking stitch tension, put the

lever on the green slot and knit the required number of rows for the depth of hem. Transfer the Front bed stitches on to the Back bed needles and continue to knit in stocking stitch.

❖ POCKETS

The garment is knitted until the position of the pocket is reached, then push into working position 2, the number of needles required for the width of the pocket.

Place a piece of contrasting wool across the open latches and push the needles back down into working position so that the wool knits through the stitches.

Put the two ends of the wool between the beds and continue to knit (Fig. 44).

When the knitting is finished remove the contrasting piece of wool and slip the two rows of open stitches on to two stitch holders (Fig. 45).

The top row of stitches are remounted on to the Back bed needles with the right side of the garment facing the machine. Sufficient number of rows of stocking stitch are knitted to form the double length of the pocket. Edge weights are used to help the knitting descend.

Place the bottom row of open stitches from the stitch holder on to the Front bed needles opposite the needles on the Back bed. Place the Front bed in normal position, join the two cam boxes together, depress the red keys and change the tension for close ribbing, alternate the flow combs.

Knit a sufficient number of rows of close ribbing to form a welt, increasing 1 stitch at each end on the first row. Cast off.

Sew up the sides of the pocket and slip stitch the sides of the welt on to the front of the garment (Fig. 46-47).



Fig. 44



Fig. 45



Fig. 46



Fig. 47

SECTION 6

RIB 2/2 CLOSE RIB (Fig 48)

For a direct casting on the needles are placed in the following position.

Back Bed	I I . I I . I I . I I .	Flow combs alternate
Front Bed	I I . I I . I I . I I	

Depress the Red keys on the cam boxes and set the tension one number higher than for 1/1 rib. After threading the wool, pass the cam boxes from right to left. Position the mounting comb as for 1/1 rib casting on. Cancel the Red key on the Front cam box

and pass the cam boxes from left to right. Turn the racking handle to bring the needles into the normal knitting position and adjust the tension, according to the wool being used, to approximately one number higher than for 1/1 rib.

Back Bed	I I . I I . I I . I I . I I . I I .	Flow combs alternate
Front Bed	I I . I I . I I . I I . I I . I I	



RIB 2/2

To operate a direct casting on, the needles are placed as follows:

Back Bed	I I . . I I . . I I . . I I . . I I	Flow combs alternate
Front Bed	I I . . I I . . I I . . I I . . I I	

Begin as for casting on 1/1 rib, except to rack 1 position after each circular row, then once again to bring the

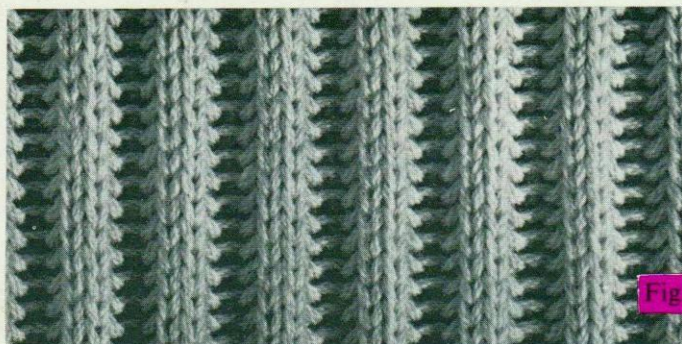
needles into normal knitting position and start the ribbing with the Red keys depressed.

Back Bed	I I . . I I . . I I . . I I . . I I	Flow combs opposite
Front Bed	. . I I . . I I . . I I . . I I . .	

2/2 FISHERMAN'S RIB (Fig 49)

Use the same needle position as for rib 2/2 and method for casting on. Depress the Green and Yellow keys on both cam

boxes and set the tension approximately 2 numbers looser than for ordinary rib.



❖ CHILDREN'S SOCKS IN SIZES 5" 6" 7"

(Fig. 50) 1 to 2 ozs, of 3 ply Wool and Nylon Yam

TENSION: 1/1 Rib

22 rows = 2 inches 3/3

Circular Knitting 18 stitches and 23 rows = 2 inches 6/6

Cast on 48 (52; 60) stitches for 1/1 rib. Knit 35 rows using tension 3/3. Cam box at right hand side. Place 12 (13; 15) stitches from side opposite cam box onto a contrasting piece of wool. Put empty needles into non working position. Knit across and place 12 (13; 15) stitches at opposite side on to a contrasting piece of wool. Transfer stitches on front needle bed to empty needles on back needle

bed. (24 (26; 30) stitches.) Remove comb and fold outside edges to meet at centre front. Mount small comb through the two thicknesses of knitting

Place stitches from contrasting wool on to front needle bed opposite the 24 (26; 30) stitches on back needle bed forming a circle. Hang on weights.

Set for circular knitting.

Back Bed
Front Bed

IIIIIIIIIIIIIIIIIIII
IIIIIIIIIIIIIIIIIIII

Green key
Green key

Flow combs
opposite

Latch marked with green dot on cam box. Tension 6/6

Knit 8 (12; 12) circular rows. Cam box on left hand side of machine.



Fig. 50

SHAPE HEEL

Back Cam Box	Keys cancelled. Tension 1.
Front Cam Box	Red key. Tension 6.

N.B.—*The heel is knitted on the Front needle bed only, the shortened rows forming the heel cap. To prevent the knitting rising above the needles, hang the edge weights on the heel part of the knitting and hold them pulling downwards against the front bed (Fig. 51).*

Decrease on same side as cam box by moving first needle into holding position at beginning of every row until 8 (8; 10) needles remain in working position.

Increase by moving the last needle placed in holding position (opposite cam box) into working position 2 at beginning of every row until all needles are back in working position.

Knit 34 (40· 48) rows of circular knitting 3 (3 $\frac{1}{2}$; 4 $\frac{1}{2}$) inches.

SHAPE TOE

Decrease one stitch at each end of back and front beds (4 stitches) on

every row until 8 (8; 8) stitches remain.

Break wool leaving a long end for either grafting or run 2 thicknesses of wool through stitches, pull together and secure on wrong side.

TO MAKE UP

Sew up ribbing.

Press with hot iron and damp cloth.

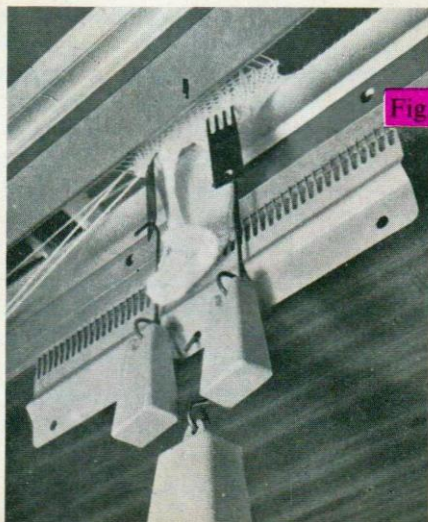


Fig. 51



Fig. 52

- Knit 102 rows (204 rows indicated on row counter, remembering the row counter will count twice for each row knitted).

- Cam box will now be on the left hand side of machine.

- Counting from the right hand side of the front needle bed transfer the 15th stitch on to be the 16th needle and the 14th and 13th stitches on to the 15th needle, moving the remaining 12 stitches up 2 positions.

- Transfer the last stitch on the right hand side of the back needle bed on to the front needle bed, making sure not to twist this stitch.

- Move the cam box from left to right.

- Then, counting from the left hand side of the front needle bed, transfer the 15th stitch on to the 16th needle and the 14th and 13th stitches on to

the 15th needle ● move the remaining 12 stitches up 2 positions.

- Transfer the last stitch on the left hand side of the back needle bed on to the front needle bed making sure not to twist this stitch.

- The end stitches will now be opposite each other (*4 stitches will now have been decreased*).

- Continue knitting until 120 rows have been knitted from commencement of circular knitting (*240 rows on row counter*).

- Repeat the decreasing, only this time move the 14th stitch on to the 15th needle and the 13th and 12th stitches on to the 14th needle.

- Continue knitting until 132 rows have been knitted from commencement of circular knitting (*264 rows on row counter*) ● There will now be 64 stitches in working position.

SHAPE HEEL

Back Cam Box Keys Cancelled—Tension 1.
Front Cam Box Red Key Circular knitting tension.

N.B.—The heel is knitted on the Front needle bed only, the shortened rows forming the heel cap. To prevent the knitting rising above the needles, hang the edge weights on the heel part of the knitting and hold them pulling downwards against the front bed.

Decreasing: ● *On the same side as the cam box, move the first needle from working position into holding position ● Knit 1 row ● Repeat from * to * until 10 needles remain in working position ● (11 stitches at each side in holding position).

Increasing: ● Commencing with the last needle placed into holding position ● This will now be on the opposite side of the cam box, place this needle into working position number 2 ● Knit across.

● Continue in this manner until all needles are in working position. Return to circular knitting (*Green Keys*) and circular knitting tension both cam boxes.

● Knit 60 (66; 72) rows ● 5 (5- $\frac{1}{2}$; 6) inches.

SHAPE TOE

● Decrease 1 stitch each end of back and front needle beds (4 stitches) on the next and every alternate row until 24 stitches remain

● Break wool, leaving a long end for grafting.

● Place the 12 stitches from front needle bed and the 12 stitches from back needle bed on to contrasting pieces of wool.

TO MAKE UP

● Graft the 24 Stitches at toe together

● Sew up back seams.

● Using a damp cloth and hot iron press carefully.



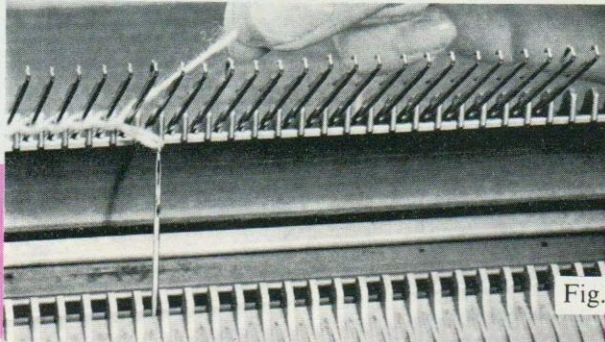
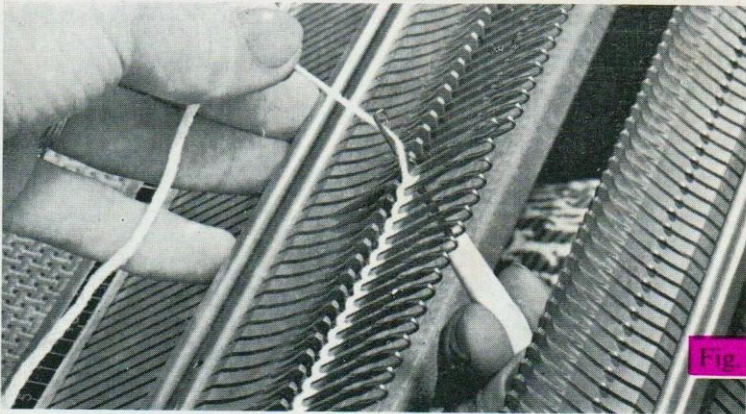
SECTION 7

✿ CASTING ON

CHAIN CASTING ON FOR STOCKING STITCH

(Fig. 29)

- 1 Open position for Front bed, and place into holding position the amount of needles required for casting on.
- 2 Fasten the wool to the left hand plastic stud. Using the yellow crochet tool and the wool make a slip knot. Hold the stitch formed on the tool.
- 3 Holding the wool in the left hand above the needles and the crochet tool in the right hand below the needles make a chain between each needle, putting the last stitch on to the last needle (Fig. 53-54).



- 4 Push the needles into working position 2, place the comb without its wire between the beds (*the same as for open casting on, see page 31*).

Make sure that the wool next to the last stitch is brought forward in front of the comb then replace the wire (Fig. 55).

Thread up the wool and place the Front needle bed into normal position.

Holding up the comb so that the needles do not hit the wire knit 1 row with the Red key depressed and using the stocking stitch tension. Hang on the weights and place the Front needle bed into upper position.

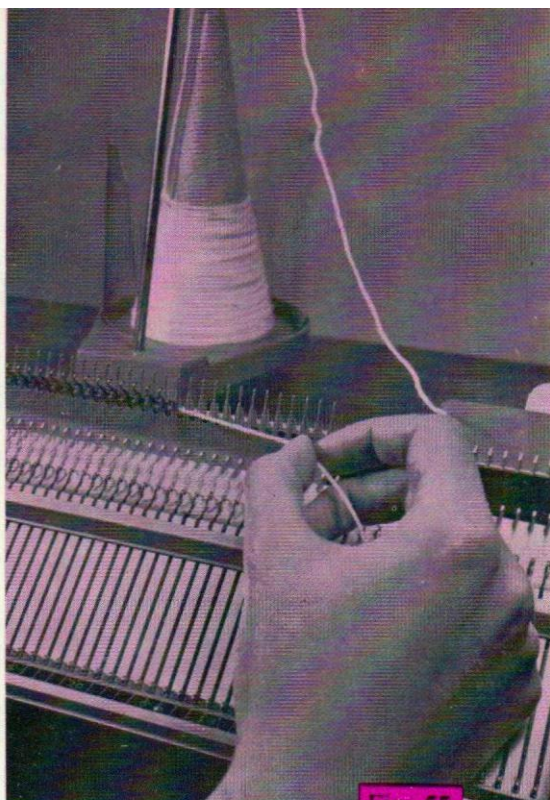


Fig. 55

HAND CASTING ON FOR 1/1 RIB

Place into working position the needles required to be cast on. Then, with the Front and Back cam box tensions at 1 and Red keys depressed, knit across, using a contrasting piece of wool. Mount the comb and hang on the weights.

Join the correct wool main colour to left hand plastic stud, push up the first needle and take the wool under the needle and then across the open latch. Pull the needle down to make a stitch and repeat until each needle has been knitted (Fig. 56).

Pass the cam boxes across with the keys cancelled. Thread up the machine with wool. Push the needles into working position 2 in order to help the cam boxes glide easily over the needles. Depress the Red keys and knit using normal tension for rib.

When the knitting is finished remove the contrasting piece of wool.

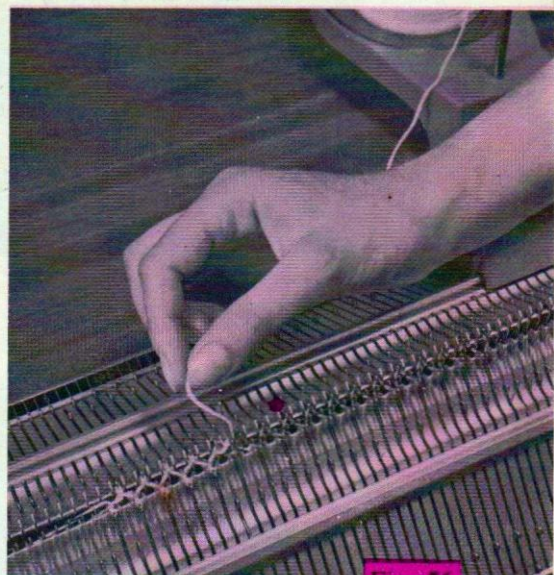


Fig. 56

LOOSE CHAIN CASTING OFF FOR STOCKING

STITCH (Fig. 57)

When knitting stocking stitch using a high tension number, use the following method for casting off:

Place the Front bed into normal position. Put into working position on the Front bed the same number of needles as on the Back bed. Depress the Red keys and turn the tension dials to equal half the number previously used for the stocking stitch.

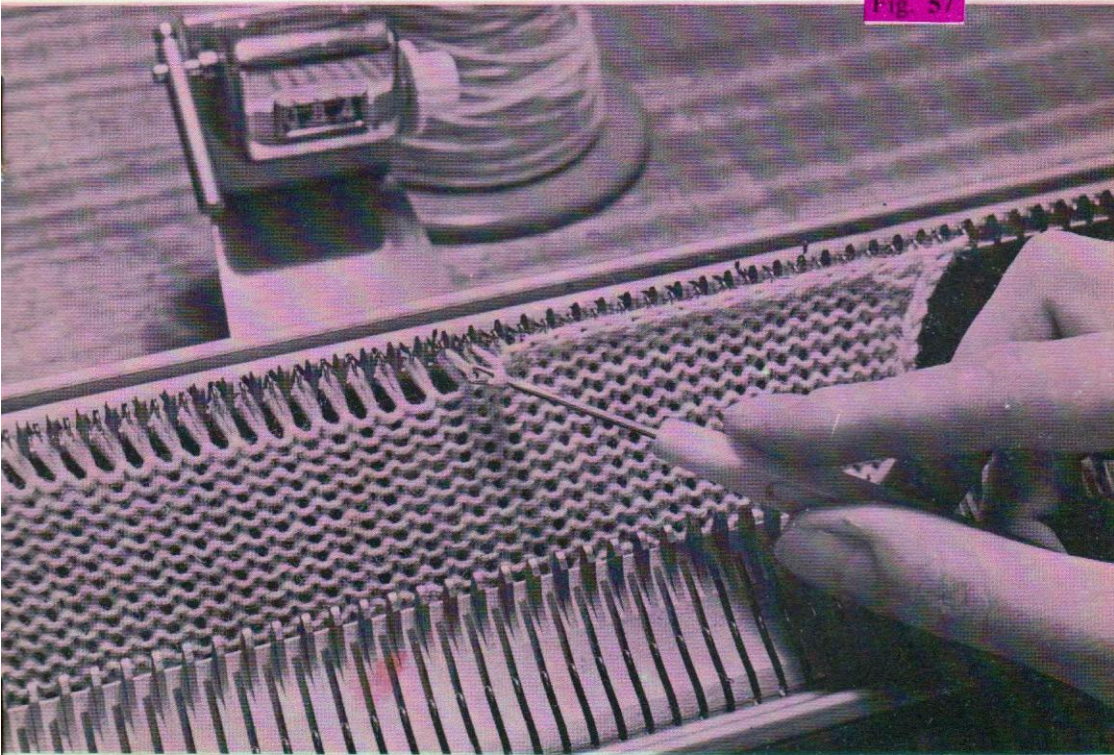
Pass the cam boxes to the left, and the Front bed needles will pick up a loop. Separate the two cam boxes and pass the Front cam box to the

right and to the left, letting the loops fall off the front needles. On the back bed there will now be a loose row of stitches

Slide down the Front bed and using the crochet tool proceed to make a chain. Begin with the first stitch on the right without lifting it off the needle, knit it through the second and then the second through the third, etc. Fasten off at the last stitch.

To take off the machine, close up the Front bed and pass across the Back cam box with Red key depressed.

Fig. 57



SECTION 8

ZIG ZAG OR RACKING PATTERN (Fig 58)

Needle setting:

Back Bed	<u>I I I I I I I I I I I I I I I I</u>	Flow combs alternate
Front Bed	<u>I I I . . . I I I . . . I I I</u>	

Depress the Red keys on each cam box with the tension approximately one number less than for stocking stitch.

Knit one row then make one translation to the left (*two movements of the racking handle*).

Repeat three times.

Then knit four rows with a translation to the right on each row.

These eight rows form the pattern.

A variety of patterns are obtained by different needle settings and using the Green and Yellow keys.



Fig. 38

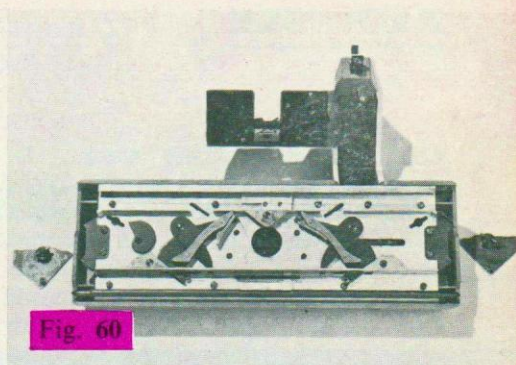
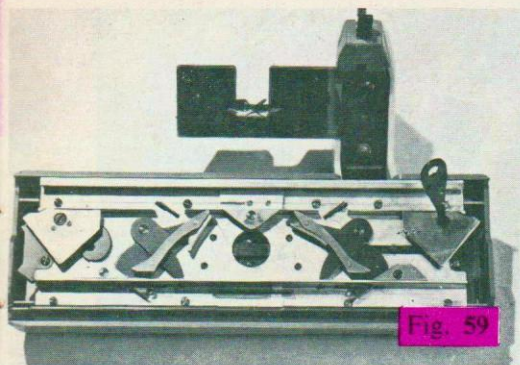
ONE ROW STRIPES

Remove the Back cam box from the machine and fix on the special cams (Fig. 59-60), using The Key Provided.

Replace the cam box, thread the machine with one of the cones of wool and cast on the required number of

stitches in stocking stitch.

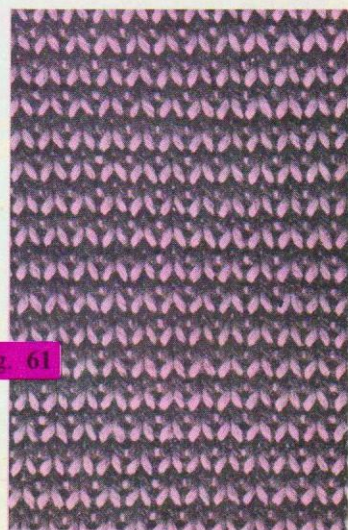
Using the ruler push all the needles into working position 2. Join the second coloured wool on to the plastic stud at the same side as the cam box.



Place the second coloured wool over the needles across the hooks with the latches open. Take the cam box across with Red key depressed and stocking stitch tension. The two wools will knit simultaneously.

Take note that the row counter will mark up one row when in fact, two rows have been knitted (Fig. 61).

Fig. 61



TWO COLOURED PATTERNS

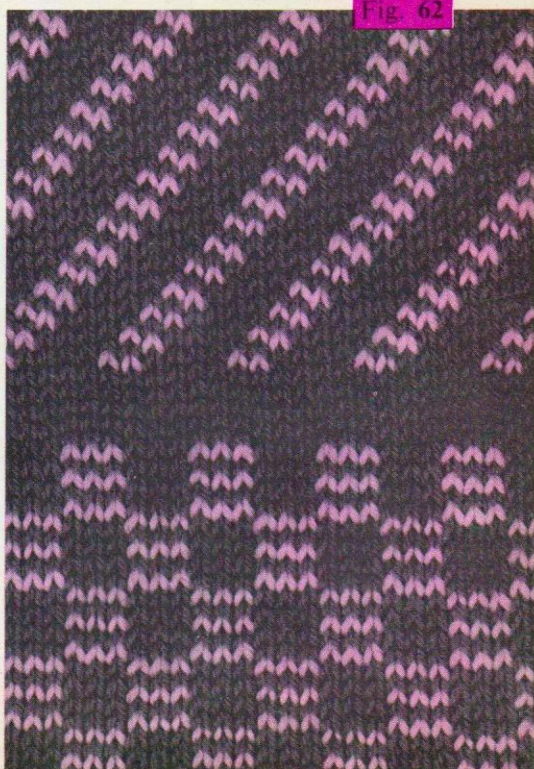
(Fig. 62)

Knitted in the same way as the stripes using the special cams, Red key and stocking stitch tension, instead of bringing up all the needles into working position 2, bring up the first 2 needles, miss 4 needles then bring up another 2 needles continuing across the row Knit 1 row.

Repeat for 2nd row but starting with the 2nd and 3rd needles. Continue making a diagonal pattern across the knitting.

Put into working position alternate groups of 3 needles. Knit 1 row. Repeat twice more. Knit the next 3 rows using the alternate group of needles.

Fig. 62



FAIR ISLE

Cast on for stocking stitch. Use the Back cam box without the special cams, and stocking stitch tension. Cancel all the keys on the cam box and start with it on the right hand side. Fasten the wools to the plastic stud on the right hand side. Fair isle is knitted feeding the wool by hand.

Bring all the needles into holding position then push the needles which are to be knitted with the first colour into working position 2. Place the wool across these needles making sure that the latches are open. Hold the wool, tensioning it slightly and take the cam box across (Fig. 63).

The needles in working position 2 will now knit down into working position. Return cam box to the right hand side and repeat with the next colour wool and group of needles. When the cam box passes, these needles will again knit down into working position but because the keys on the cam box

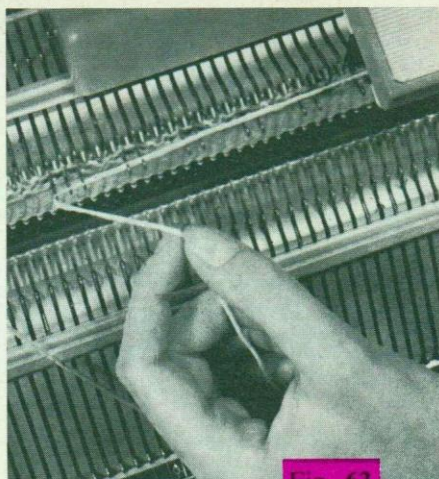


Fig. 63

are cancelled the first group of needles already in working position will not move, or knit.

Continue in this way until all the needles in holding position have been knitted. This will mean that one row has been completed. Start the second row by again bringing all the needles into holding position.

It is usual to have a chart to follow with a pattern (Fig. 64).

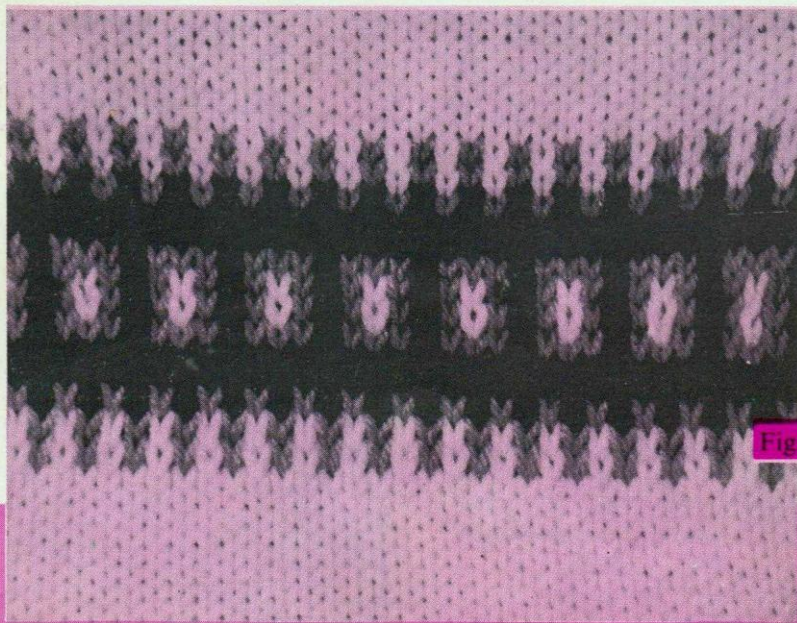


Fig. 64

SECTION 9

❖ USING DOUBLE KNITTING WOOL

Turn the white numbered discs at each end of the machine to 6. Pass the cam boxes to the left end and slide one wheel-arm in above the brushes. Repeat for the right hand side (Fig. 65). These wheels help to push the thick knitting wool down when knitting rib. They are not necessary for stocking stitch. Also use the two heavy weights with the medium ones.

For thick types of double knitting wool it is more satisfactory to use every third needle for ribs and every other needle for stocking stitch. When a garment is to be knitted in rib and stocking stitch, it is better to start with the stocking stitch, using an open casting on (see *simple hem page 31*), then remount the knitting to knit the rib.

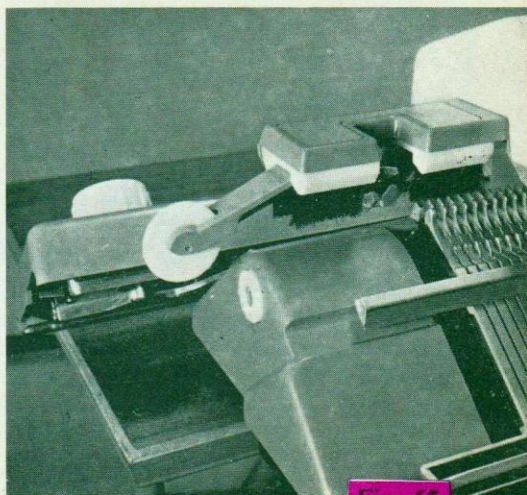


Fig. 65

NEEDLES SETTING

RIB : Back Bed . I . . I . . I . . I . . I . . I . . I
 Front Bed I . . I . . I . . I . . I . . I Flow combs alternate

STOCKING STITCH

Back Bed I . I . I . I . I . I . I . I . I
 Front Bed I . I . I . I . I . I . I . I . I
 in upper position

To cast on for rib use the same method as for I/I rib but starting at tension 3 and using the setting as shown above.

CORRECTING A DROPPED STITCH IN STOCKING STITCH

● Insert the yellow crochet tool from the opposite side of the knitting through a stitch a few rows below the dropped stitch (Fig. 66).

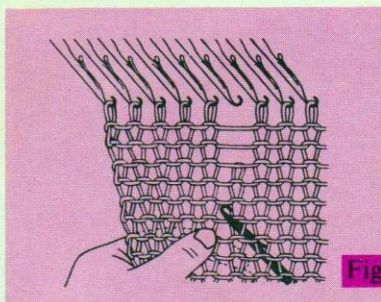


Fig. 66

● Push the yellow tool towards the front letting the stitch slide behind the latch (Fig. 67) and catch the loop of the next row in the hook (Fig. 68).

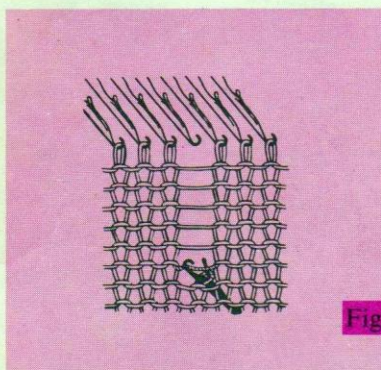


Fig. 67

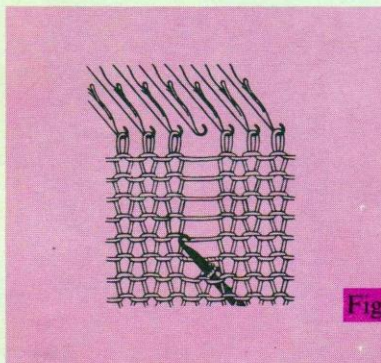


Fig. 68

● Pull the hook out of the knitting, automatically closing the latch over the loop forming a new stitch.

● Repeat this again inserting the hook holding the new stitch below the next loop (Fig. 69).

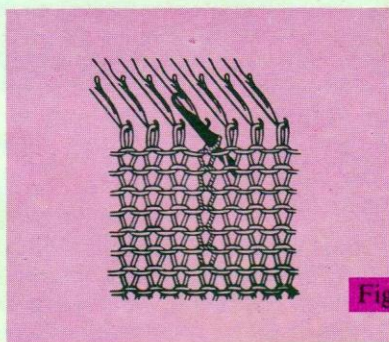


Fig. 69

● After knitting the last loop transfer the stitch on to the needle using a transfer tool (Fig. 70).

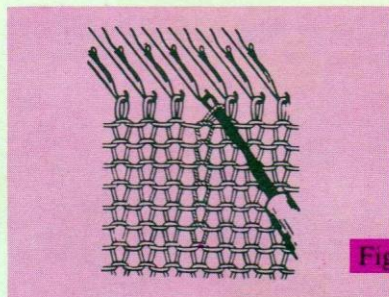


Fig. 70

● Stitches that have dropped from the front bed should be picked up by inserting the yellow tool from the front.

TENSIONS

At the beginning of each pattern a tension is given, i.e. the number of rows and stitches produced over a two inch square. The instructions for the garment have been carefully worked out by the designer from this tension sample, so it is very important that the same number of rows and stitches are obtained as suggested by

the pattern to ensure that the garment knits up to the correct size. The pattern also suggests a tension number to use but this is only approximate, as wool and machines vary. Therefore, **it is important** that the tension sample should be knitted on your machine before knitting a garment.

To Knit a tension Sample

Cast on approximately 40 stitches with the wool you are going to use. Set the tension dial on the number suggested by the pattern and knit 30 rows. Mark the last row with a piece of contrasting wool. Knit a further 30 rows using a tension higher, then 30 rows using a tension lower. Remove the knitting from the machine and count the rows and stitches on each section over two inches (Fig. 71).

Count accurately making sure to count full stitches. $\frac{1}{2}$ stitch extra per two inches will eventually make a garment two or three inches smaller. Similarly an extra $\frac{1}{2}$ row will make the garment too short. Use the tension number which gives you the same number of rows and stitches as suggested by the pattern. Take care when counting Fisherman's Rib patterns and similar fancy stitches, as two rows give the appearance of one row, therefore, count the rows then multiply by two.

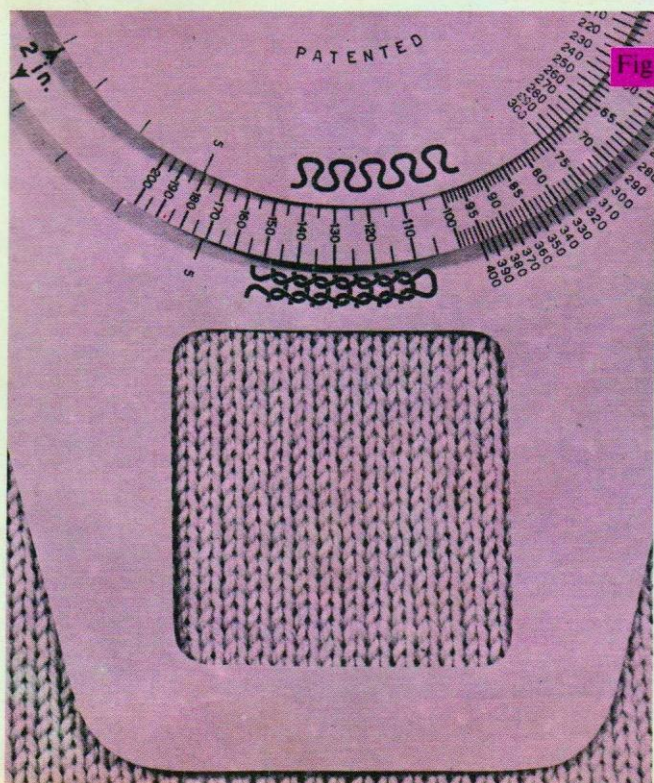


Fig. 71

14 stitches
and 19 rows
to 2 inches.

Measurements

Before commencing to knit a garment, carefully check the measurements given on the pattern with your own measurements. It is a good idea

to draw a rough diagram, i.e. length at centre back, length of side seams, length of shoulder, length of sleeve seams.

Pressing

When each part of the garment has been completed, using the diagram and measurements as a guide, pin each piece into shape on an ironing board.

The knitting is always placed so that the pressing is done on the wrong side of the garment.

Backs and whole fronts can be folded in half and the two layers pressed at the same time, thus ensuring that the

knitting is not stretched and is the same shape both sides. The crease down the centre can be carefully pressed afterwards. Press carefully with a damp cloth and a hot iron.

With ribbing and raised patterns it should only be necessary to place the iron lightly on top of the damp cloth and steam. Never fold ribbing in half (Fig. 72).



Fig. 72

SEWING SEAMS TOGETHER (Fig. 73/74)

Sewing together raglan seams, stocking stitch seams and ribbed bands to fronts.

Pin the two pieces together that are going to be seamed and sew from the right side of the garment.

Thread a tapestry needle with matching wool starting from the right hand edges. Pick up the loop between the first and second stitches on one side, pull the wool through, then pick up the loop between the first and second stitches on the second side.

Pull the wool and repeat, picking up every loop on each side alternately, pulling the two edges gently together.

One stitch on each side of the pieces of knitting will completely disappear to form a seam on the underside.

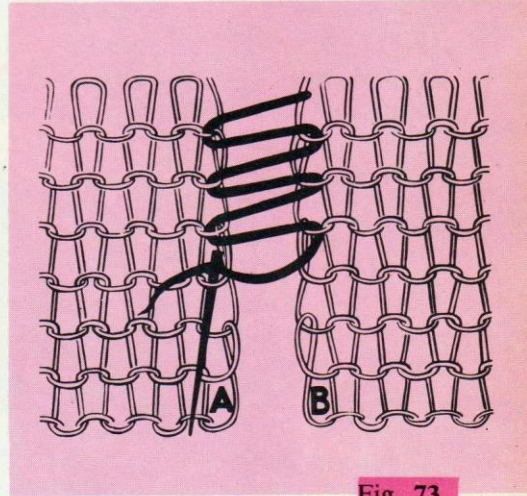


Fig. 73

Fig. 74



CHANGING A NEEDLE (Fig. 75)

Using the yellow crochet tool, pull out the thin wire found underneath the top slide rail on the right hand side of the machine. This wire holds the needles in position.

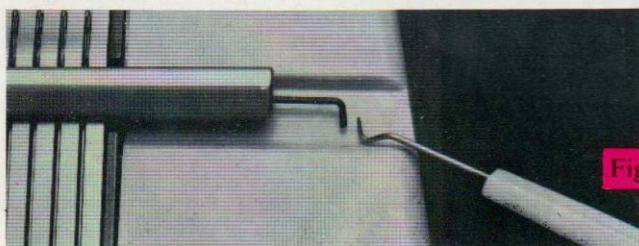
It is therefore only necessary to remove the wire sufficiently to release the bent or broken needle.

To remove the needle, close the latch and lift the heel, gently pulling it out

from under the slide rail.

To replace the needle, open the latch and pass the head under the slide rail, gently forcing it into its place in the groove. Replace the wire.

If the head of the needle is bent, snip it off with a pair of pliers before removing the needle, as the bent hook and latch could catch on the spring which is under the slide rail.

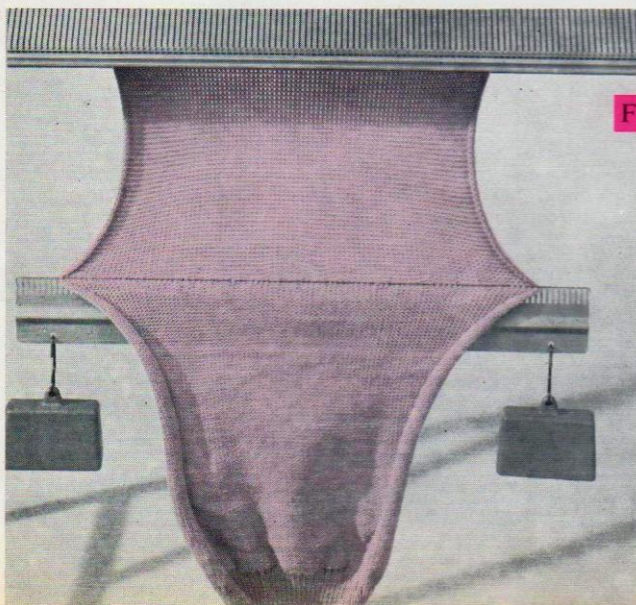


WEIGHTS

The weights should always be hung in such a position that the comb is horizontal.

This position must be maintained

during the knitting, therefore, if any increasings or decreasings upset this balance, the weights should be added or taken away, as necessary.



Before the weights touch the ground, it is necessary either to remount the comb or to roll the knitting. For the first, unhook the weights, remove the steel wire and take out the comb. Remount it through the knitting just below the needles beds. Re-insert the wire and hang on the weights (Fig. 76).

To roll the knitting, remove the weights

and wind the comb upwards. Fasten the knitting at each side with the weights (Fig. 77).

The heavy weights are used particularly when knitting Fisherman's Rib and thick wool.

The edge weights are used on the edges, sock heels and when dividing for neck lines, etc.

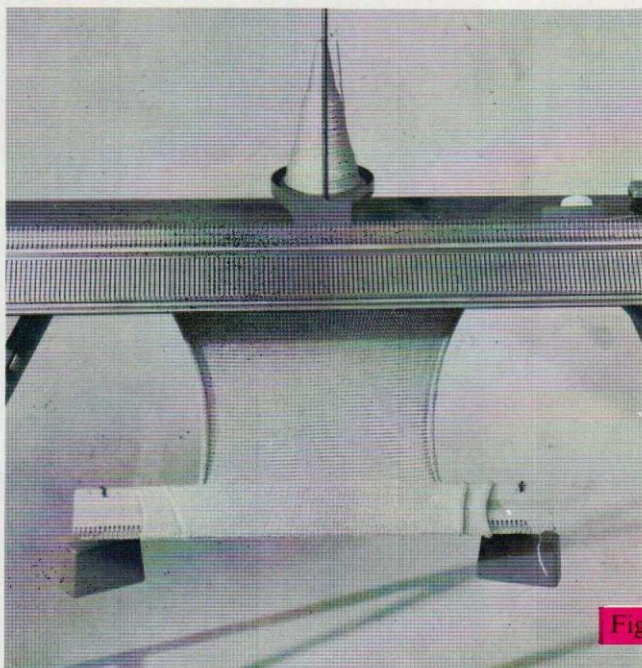


Fig. 77

LOOKING AFTER YOUR MACHINE

In order to keep the machine knitting smoothly and functioning correctly, oil the machine lightly using machine oil*.

Rub a little oil on to the heels of a group of needles. Pass the cam boxes over these needles several times with the Red key depressed, this will then oil the cams in the boxes.

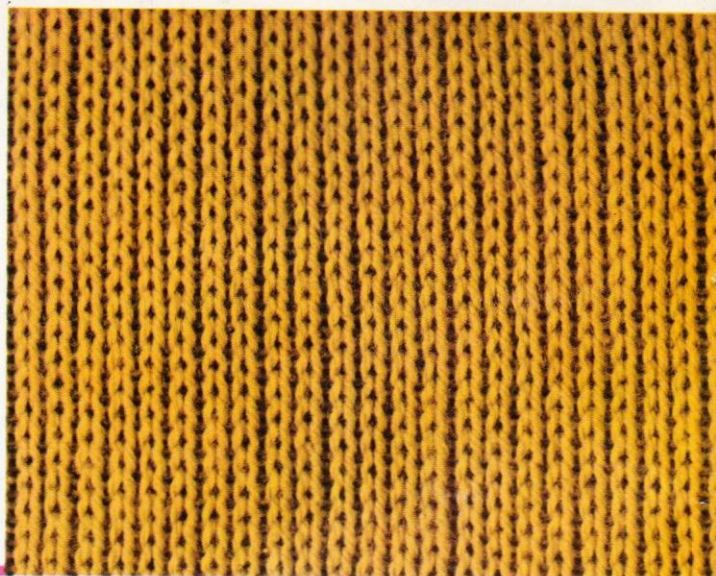
After knitting a garment fluff from the wool collects in the needle grooves on the beds. This should be removed using a clean brush.

When not in use the machine should be covered or put away in its case in order to keep the needles bright and polished. Also it is wise to keep the machine in a dry atmosphere.

*(Singer machine oil is ideal for this purpose.)

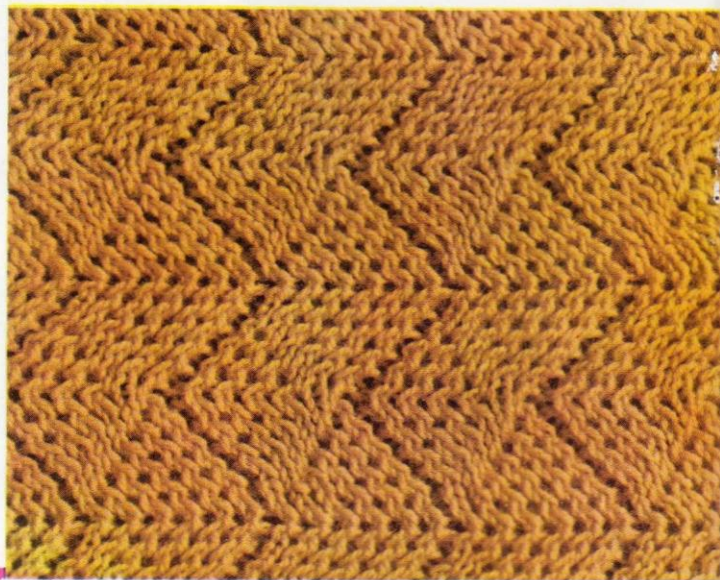
FANCY
STITCHES

N° 1



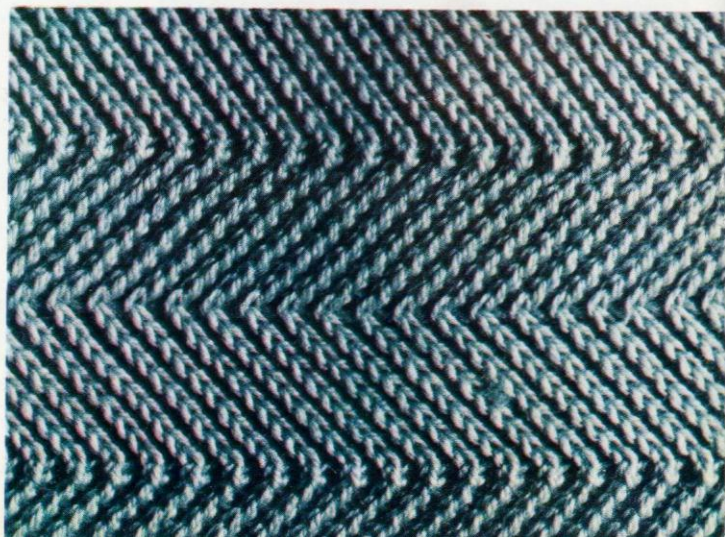
FANCY
STITCHES

N° 2



FANCY
STITCHES

N° 3



SECTION 10

Wool 3 ply Tension 5/5 Beds Position 3 Flow Combs Alternate.

Setting	<u>Back Bed</u>	<u>IIIIIIIIIIIIIIIIIIII</u>
	Front Bed	IIIIIIIIIIIIIIIIIIII

Back Cam Box Red Key.
 Front Cam Box Green Key.

The right side of the work is facing when on the machine.
 The row counter registers twice for each right side row.

Wool 3 ply Tension 5 $\frac{1}{2}$ / 5 $\frac{1}{2}$ Beds Position 3 Flow Combs Alternate.

Setting	<u>Back Bed</u>	<u>. IIIIII . IIIIII . IIIIII .</u>
	Front Bed	IIIIII . IIIIII . IIIIII .

Front Bed at Extreme Right.

Back Cam Box Red Key.
 Front Cam Box Green and Yellow Keys.

Cam Box at Right.

*1 Translation to the left. Knit 2 rows. *Repeat 5 times.
 **1 Translation to the right. Knit 2 rows. **Repeat 5 times.
 Repeat these 24 rows.

Wool 3 ply Tension 6/6. Beds Position 3 Flow Combs Alternate.

Setting:		
	<u>Back Bed</u>	<u>IIIIIIIIIIIIIIIIIIII</u>
	Front Bed	IIIIIIIIIIIIIIIIIIII

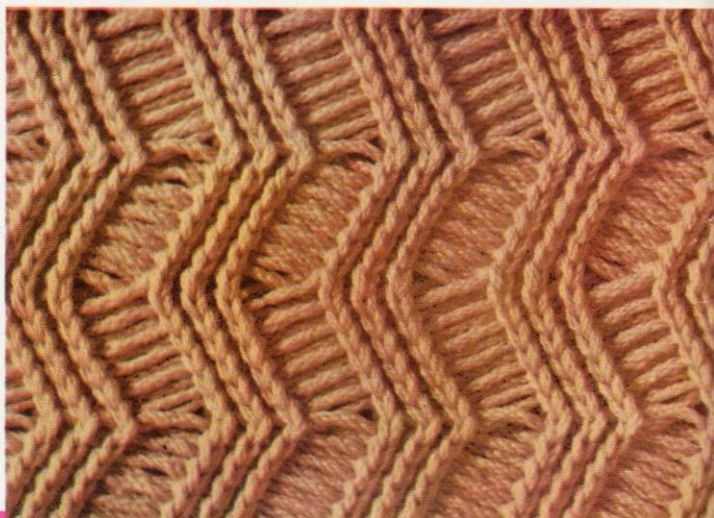
Back Cam Box Green and Yellow Keys.
 Front Cam Box Green and Yellow Keys.

Cam boxes to the right.

*1 translation to the left. Knit 1 row.
 1 translation to the right. Knit 1 row.
 Knit these two rows 10 times (20 rows).
 Knit 21st row without translation**.
 Cam boxes at left.
 Repeat from * to**.

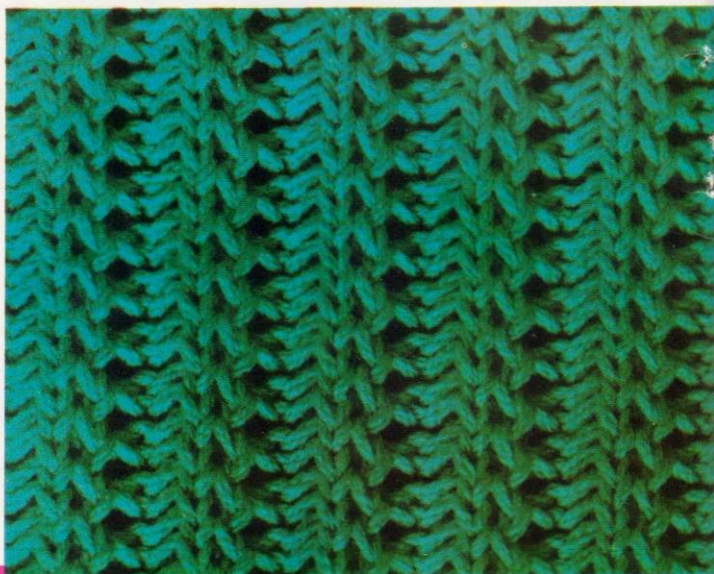
FANCY
STITCHES

N° 4



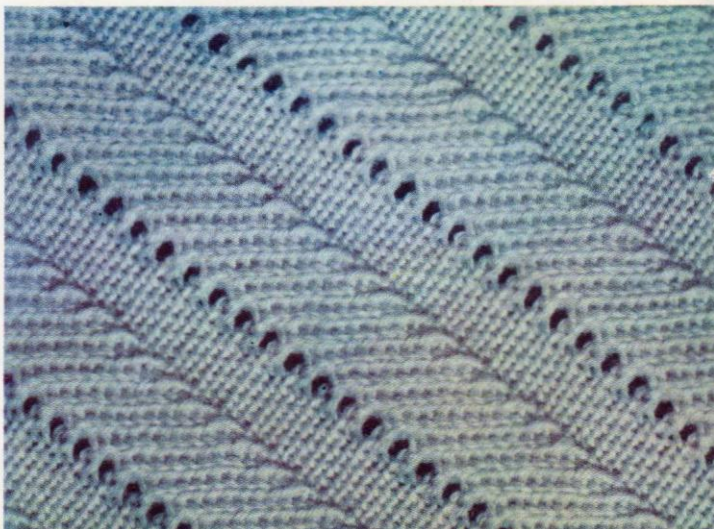
FANCY
STITCHES

N° 5



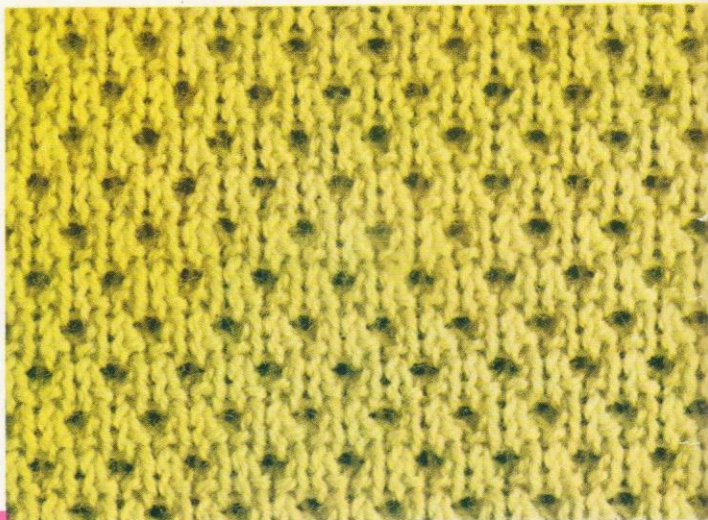
FANCY
STITCHES

N° 6



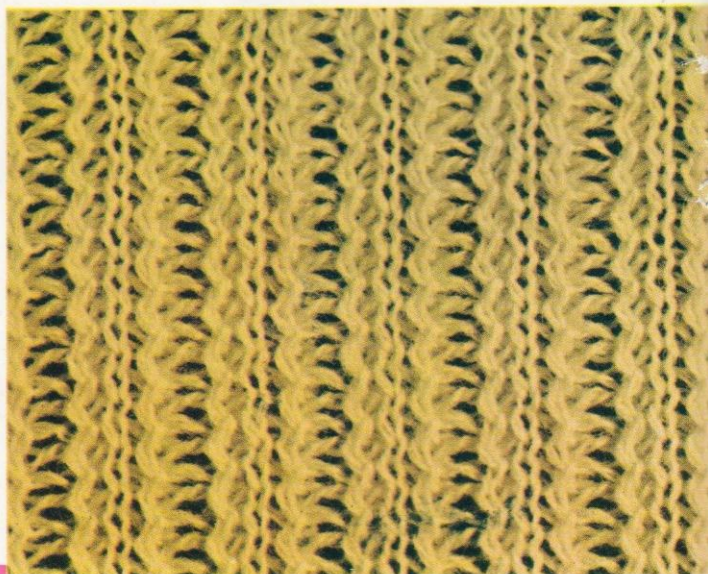
FANCY
STITCHES

N° 7



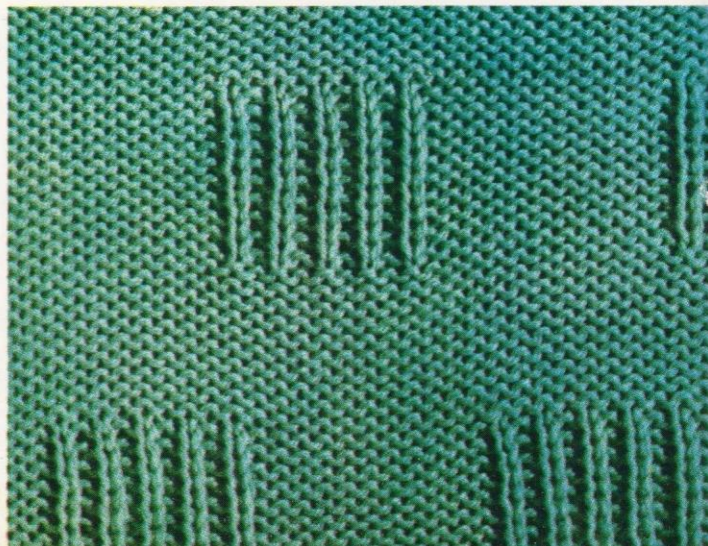
FANCY
STITCHES

N° 8



FANCY
STITCHES

N° 9



Wool 3 ply Tension 7/4 Bed Position 3 Flow Combs Alternate.

Setting Back Bed I I I I I I I I I I I I I I I I
Front Bed I . I . I . I . I . I . I . I

Cam Boxes at Right.

*Back Cam Box Red Key. Make 1 Translation to the left. Knit 3 rows.
 Front Cam Box Yellow Key.
 Back Cam Box Red Key. Knit 1 row.
 Front Cam Box Red Key.
 Back Cam Box Red Key. Make 1 translation to the right. Knit 3 rows.
 Front Cam Box Yellow Key.
 Back Cam Box Red Key. Knit 1 row**.
 Front Cam Box Red Key.
 Repeat from * to**.

Wool 3 ply Tension 6/6 Beds Position 3 Flow Combs Alternate.

Setting Back Bed I I I . I I I . I I I . I I I . I I I
Front Bed I . I . I . I . I . I . I . I . I . I . I

Back Cam Box Green and Yellow Keys.
 Front Cam Box Green and Yellow Keys.

Cam boxes to the right.

Make 1 translation to the left. Knit 2 rows.
 Make 1 translation to the right. Knit 2 rows.
 Repeat these 4 rows.

Wool 3 ply Tension 6/6 Beds Position 3 Flow Combs Opposite.

Setting Back Bed . I . I . I . I . I I I I I I I I I I . I . I .
Front Bed I . I . I . I . I I . I . I

Back Cam Box Red Key.
 Front Cam Box Red Key.

Knit 10 rows.
 Transfer all front needle bed stitches to the empty back bed needles.

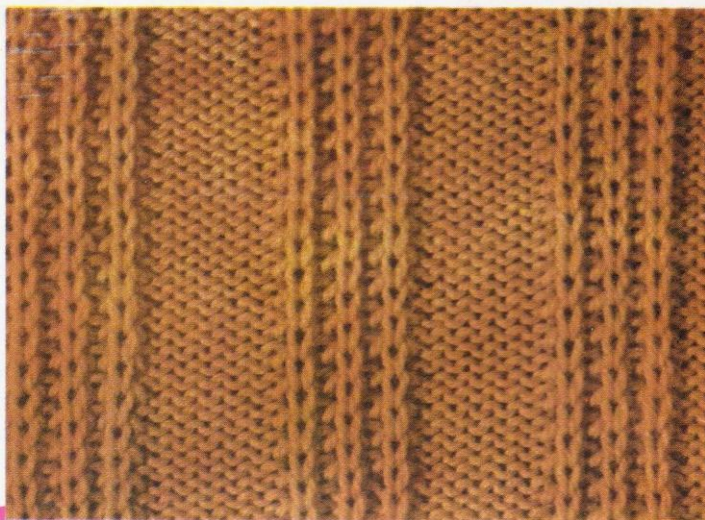
Knit 10 rows.
 Transfer sts. as follows:

Back Needle Bed I I I I I I I I I I . I . I . I . I I I I
Front Needle Bed I . I . I . I . I

Knit 10 rows.
 Transfer Front Needle Bed sts to Back Needle Bed.
 Knit 10 rows.

FANCY
STITCHES

N° 10



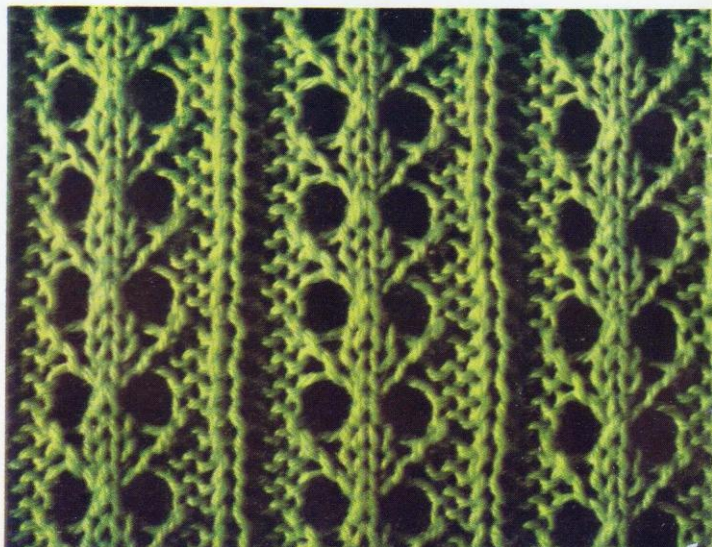
FANCY
STITCHES

N° 11



FANCY
STITCHES

N° 12



Wool 3 ply Tension 5/5 Beds Position 3 Flow Combs Opposite.

Setting	<u>Back Bed</u>	. I . I . I I I I I I . I . I . I I I I I I
	<u>Front Bed</u>	I . I . I I . I . I

Back Cam Box Red Key.
 Front Cam Box Green and Yellow Keys.

Wool 3 ply Tension 7/7 Beds Position 5 Flow Combs Opposite.

Setting:

		x x y y z z
<u>Back Bed</u>	I I I I I I . . . I I I I I I . . . I I I I I	
<u>Front Bed</u> I I I I I I	

Back Cam Box Red Key.
 Front Cam Box Red Key.

*Knit 4 rows. Take stitches yy off on to a transfer tool.
 Transfer stitches xx on to empty yy needles and replace stitches on transfer tool on to empty xx needles.
 Knit 4 rows. Take yy stitches off on to a transfer tool.
 Transfer stitches zz on to empty yy needles and replace stitches on transfer tool on to empty zz needles**.
 Repeat from * to**.

Wool 3 ply Tension 6/6 Beds Position 3 Flow Combs Opposite.

Setting:

<u>Back Bed</u>	. I I . . . I I . I I . . . I I . I I . . .
<u>Front Bed</u>	I . . I I I . . I . . I I I . . I . . I I I

Back Cam Box Red Key.
 Front Cam Box Red Key.

*Knit 4 rows.
 On each group of 3 needles on Front needle bed transfer the first and third stitches on to the centre needle.
 Leave empty needles in W.P.**.
 Repeat from * to**.

FANCY
STITCHES

N° 13



FANCY
STITCHES

N° 14



FANCY
STITCHES

N° 15



Wool 3 ply Tension 6/6 Beds Position 3 Flow Combs Alternate.

Setting:

Back Bed I I I I I I I I I I I I I I I I
Front Bed . . . I I I I . .

Back Cam Box Red Key.

Front Cam Box Red Key.

2 translations to the right. Knit 1 row.

2 translations to the left. Knit 1 row.

Repeat these 2 rows.

Wool 3 ply Tension 6/6 Beds Position 3 Flow Combs Alternate.

Setting:

Back Bed I I I . . I I I . . I I I . . I I I
Front Bed . . I I I I

Back Cam Box Red Key.

Front Cam Box Red Keys.

Knit 3 rows, making a translation to the left on each row.

Knit 3 rows, making a translation to the right on each row.

Wool 3 ply Tension 6 Beds Position 5 Flow Combs Opposite.

Setting:

Back Bed I I I I I I I I I I
Front Bed

Back Cam Box Red key.

Transfer every 6th stitch to the next needle to the right.

Leave empty needles in working position. Knit 1 row.

*Transfer the loop on each 6th needle to the needle on the left. Leave empty needles in working position. Knit 1 row. Transfer the loops on each 6th needle to the needle on the right. Leave empty needles in working position. Knit 1 row.**

Repeat from * to**.

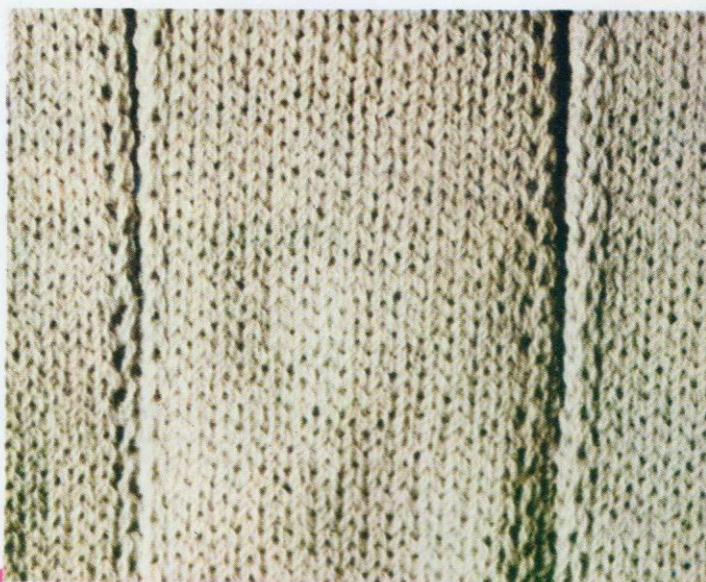
FANCY
STITCHES

N° 16



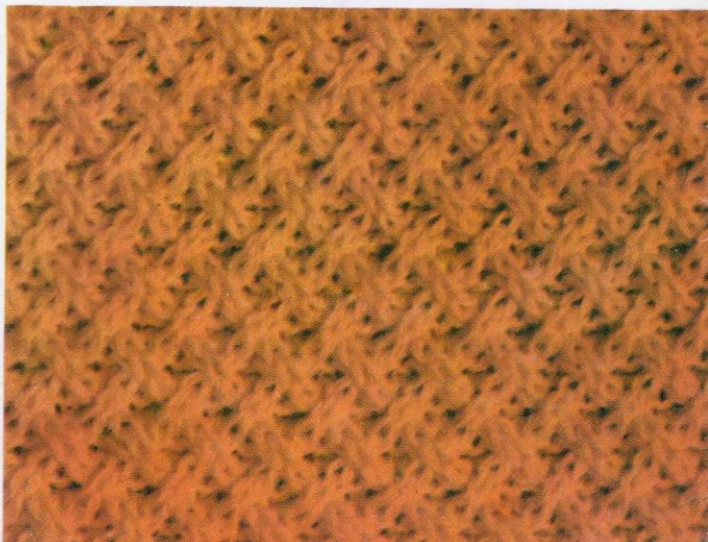
FANCY
STITCHES

N° 17



FANCY
STITCHES

N° 18



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