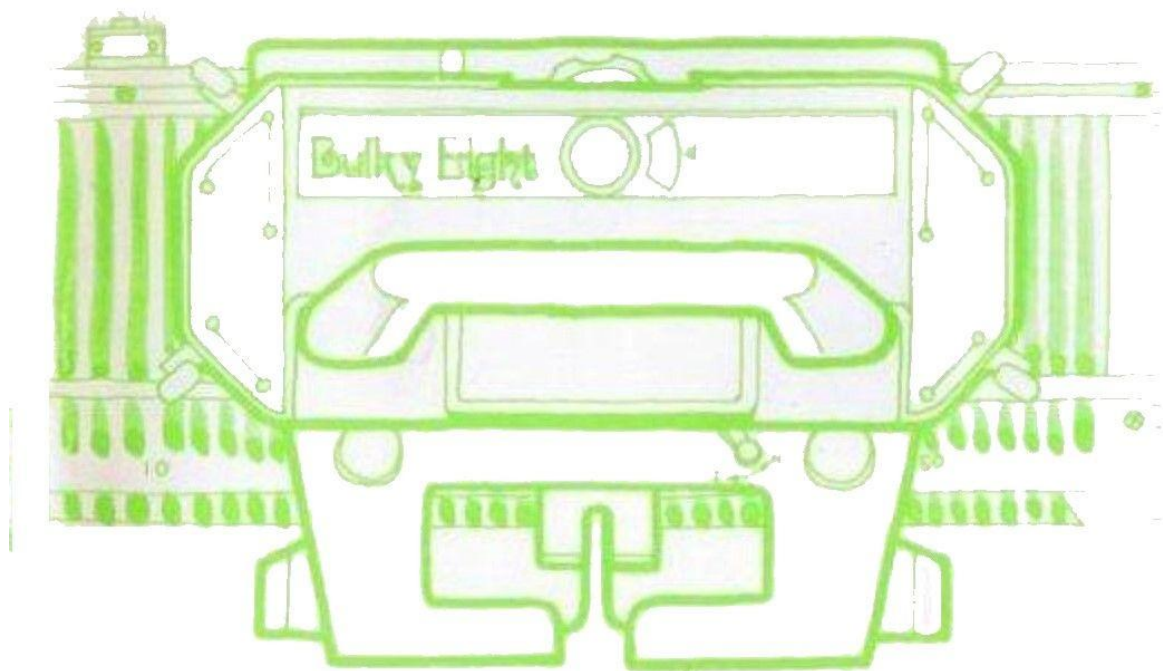


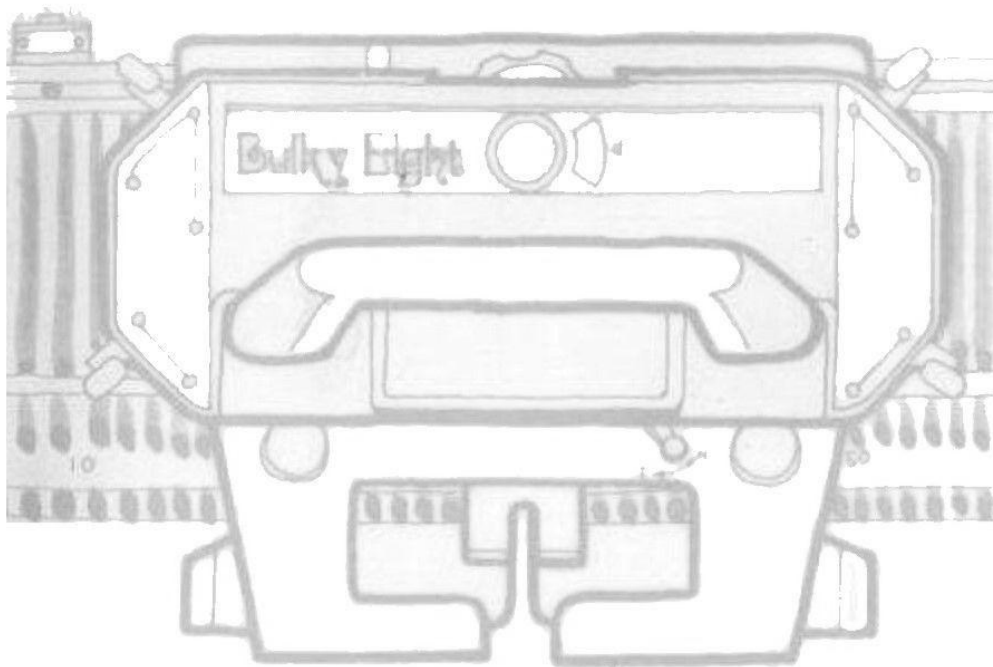
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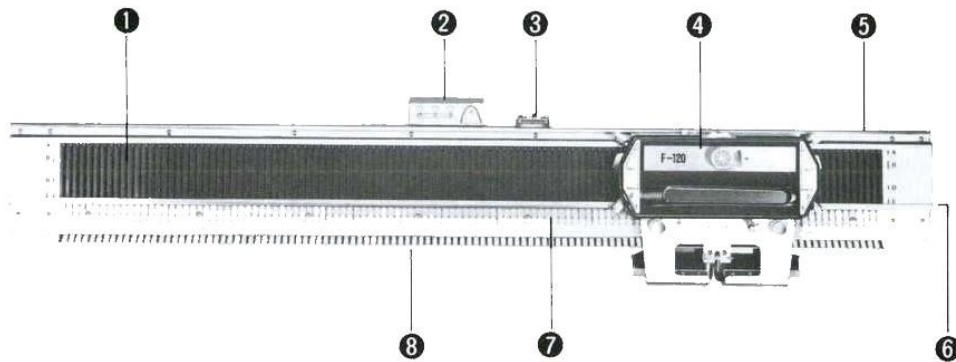
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THE MACHINE



1. Needle Bed
2. Row Counter
3. Yarn Mast Socket
4. Carriage
5. Rear Runner Rail
6. Needle Retaining Bar Rod
7. Latch Needle
8. Sinker Plate

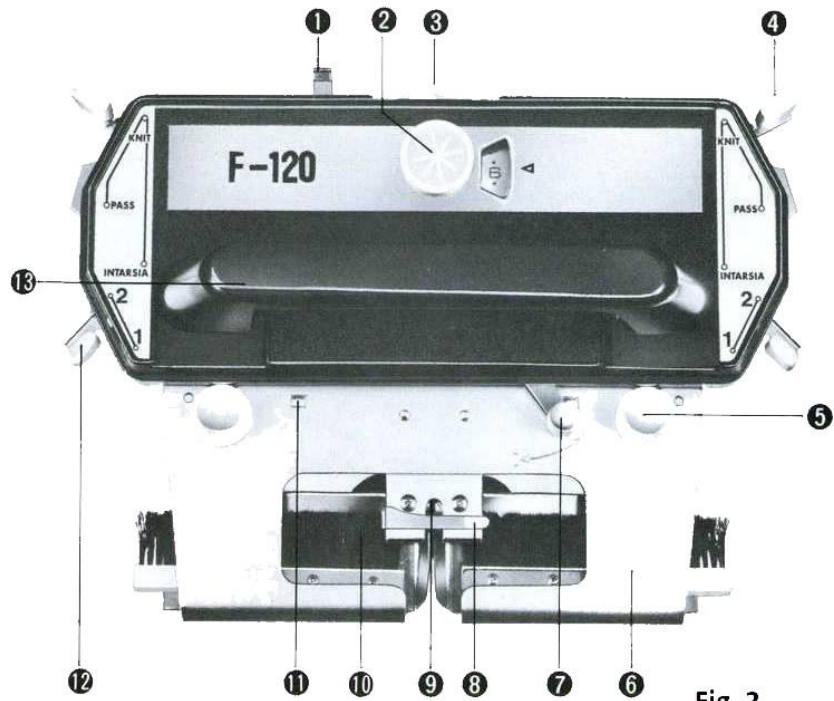


Fig. 2

1. Row Counter Trip Arm
2. Tuck Knob
3. Tension Control Dial
4. Shifting Cam lever
5. Sinker Plate Securing Nut
6. Sinker Plate (Fabric Presser)
7. Intarsia Switch Lever
8. Yarn Feeder Spring
9. Yarn Feeder
10. Latch brush
11. Arm Locating Hole
12. Return Cam Lever
13. Handle

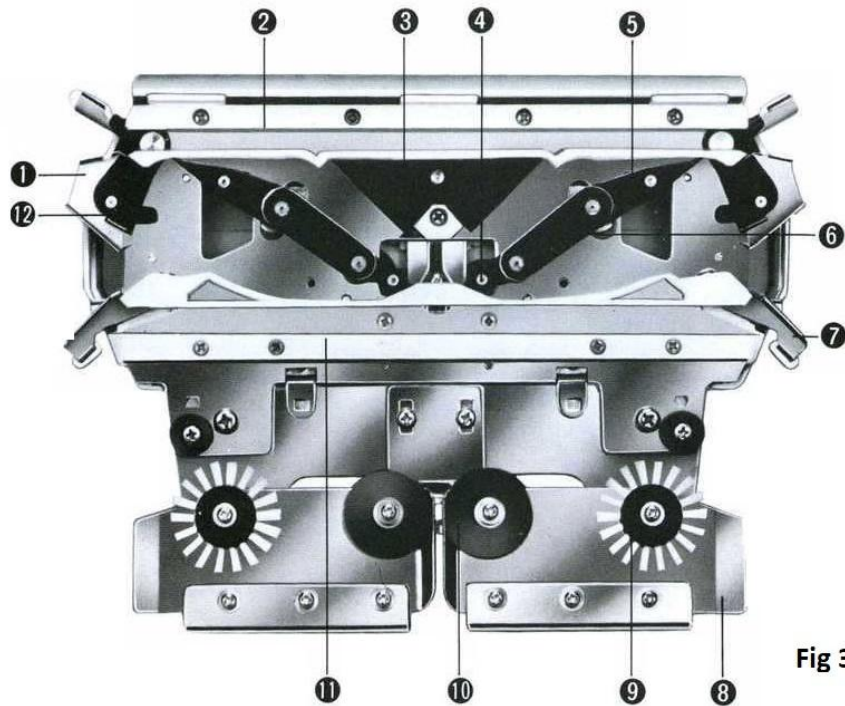


Fig 3

1. Russel Plate
2. Rear Slider
3. Tuck Cam
4. Intarsia Cam
5. Shifting Cam
6. Knitting Cam
7. Return Cam
8. Presser
9. Rotary Brush
10. Rubber Wheel
11. Front Slider
12. Shift Cam Stopper

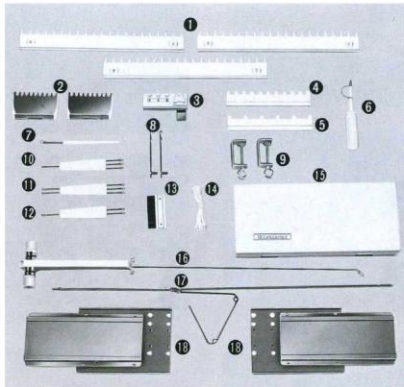


Fig 4

- | | |
|---------------------------|-------------------------------|
| 1. Cast On Weighted Combs | 10. Transfer Tool 3 + 1 |
| 2. Seldedge Weights | 11. Transfer Tool 3 + 1 |
| 3. Row Counter | 12. Transfer Tool 2 + 1 |
| 4. Selector Plate 1 x 1 | 13. Cleaning Brush |
| 5. Selector Plate 3 x 1 | 14. Cast On Cord |
| 6. Rust Proof Lubricant | 15. Accessory Case |
| 7. Latch Needle Tool | 16. Overhead Tension Unit |
| 8. Spare Latch Needles | 17. Yarn Mast With Yarn Guide |
| 9. Table Clamps | 18. L & R Extension Plates |

HOW TO ASSEMBLE THE MACHINE

Place the machine on the edge of a firm table. (Fig 5)

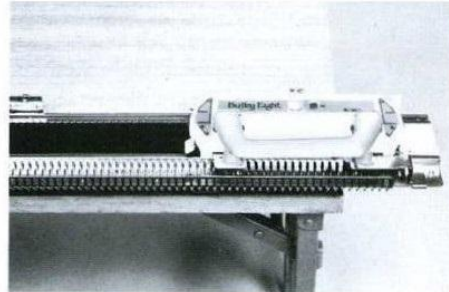


Fig.5

Fit the machine to the table using the table clamps (Fig 6)



Fig.6

Lift handle to upright position and push down to engage the retaining spring (Fig 7)

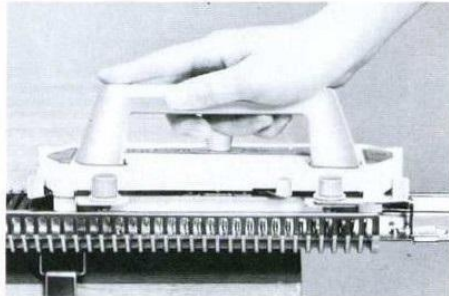


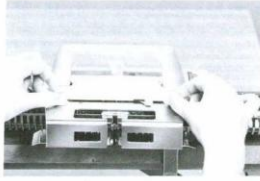
Fig.7

Loosen the right hand presser arm securing nut and remove the locking plate. (Plate 8)



Fig.8

5. Loosen the left hand sinker plate securing nut and place into position - the sinker plate arm, so that the cut outs in the top of the arm pass beneath the left and right securing nuts. Ensure that the two locating holes in the sinker plate are located directly over the positioning studs and tighten the securing nuts firmly. (Fig 9)



6. Insert the row counter into position into the socket to be found at centre back under the machine. (Figs 10 & 11)

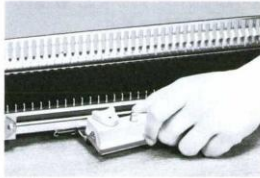


Fig.10

To bring the row counter into operation, draw out the row counter trip arm. (Fig 12)

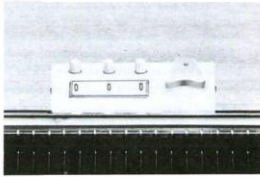


Fig.11

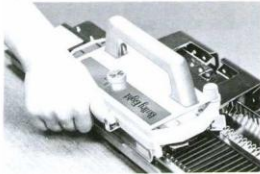


Fig.12

Insert the yarn tension rod into small socket at the back of the machine. (Fig 13)

Be sure that the two small protrusions provided near the end of the rod, fit into the cut outs located at the top of the socket - see also Fig 13.

Raise the rear yarn guide into the position as shown (Fig 14).

The yarn clip on the back of the rod can be used for fastening loose ends of yarn which are not threaded into the carriage feeder. (Fig 14)

Before placing the overhead tension unit onto the upper end of the rod, press back the pair of long take up wires (at the bottom) until they click into position into a groove at the back.

Now the tension unit can be placed onto the upper end of the yarn rod so that the small protrusion located near the upper end of the rod, will just fit into the cut out on the underside of your tension unit. (Fig 15)

When using the left and right hand extension plates - place the needle bed face down before clamping the machine to the table edge. Loosen four 4 x 5 screws located on the side plates at both ends of the needle bed and remove them. Put the extension plates into position - on the side plates - and tighten the four screws in position on the extension plates. (Fig 16)

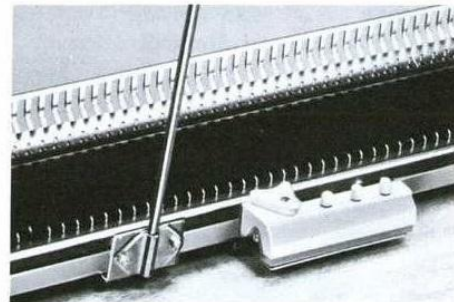


Fig.13

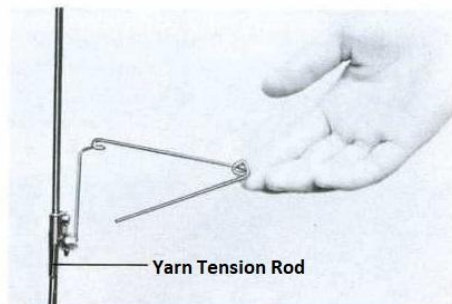


Fig.14

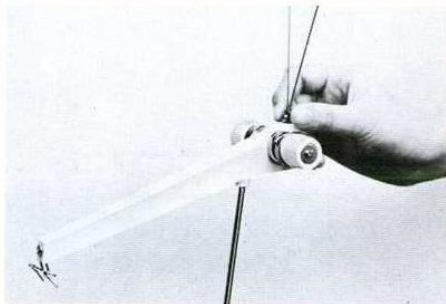


Fig.15

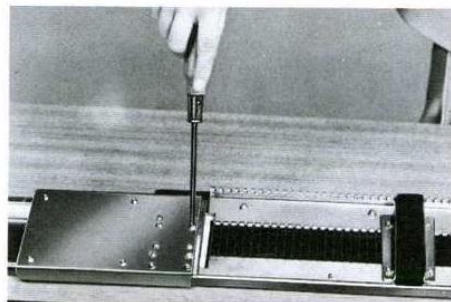


Fig.16

BASIC INFORMATION ABOUT THE MACHINE

1. The Latch Needle



How a stitch is formed

As the carriage passes over the needles, the cams operate the needles by making contact with the needle butts.

- (a) A stitch is held in the hook with the latch closed. (Fig.17-a)
- (b) The cam pushes the needle forward. The rotary brush prevents the fabric from coming forward with the needles. The needle is therefore pushed through the stitch and this action opens the latch. (Fig.17-b)
- (c) As the needle continues to move forward, the stitch passes behind the latch. (Fig.17-c)
- (d) The needle moves back and the new wool is fed into the hook. The previous stitch is going to close the latch. (Fig.17-d)
- (e) As the needle continues to move back, the new wool is checked by the sinker plate and, at the same time the previous stitch is pushed forward over the closed latch to form a new stitch. (Fig.17-e)
- (f) As the needle moves further back, the previous stitch drops over the front of the needle and the new stitch is now formed in the hook. (Fig.17-f)

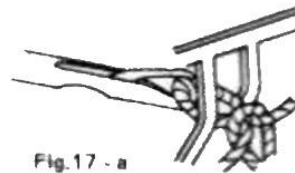


Fig.17 - a

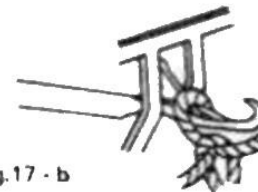


Fig.17 - b



Fig.17 - c



Fig.17 - d

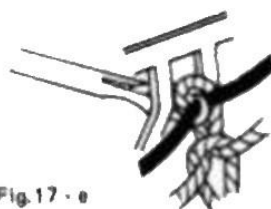


Fig.17 - e

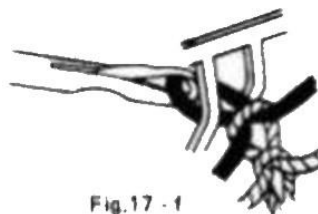


Fig.17 - f

Needle Positions (Fig. 18)

(A) Non-Working Position

Needles not required for knitting should always be pushed back against the rear runner rail.

(B) Working Position

Needles required for knitting should be brought forward into this position before commencing to knit.

(D) Manual Return from Holding Position

Needles will knit when pushed back into this position from holding position (E).

(E) Holding Position

Needles hold stitches but do not knit. Used for pull-up knitting (holding stitches on individual needles), part knitting etc.

Note: See also the table "How the control of the carriage knob and levers operate the needles" shown in page 12.

1. Tension Control Dial

This controls the size of the stitch and is located at the back of the carriage cover. The dial is numbered from 0 to 10 with two intermediate tension settings between each number, and is visible in the window on the carriage cover. (Fig.19)

The higher the number the looser the tension. When knitting extra thick wool use every alternate needle.

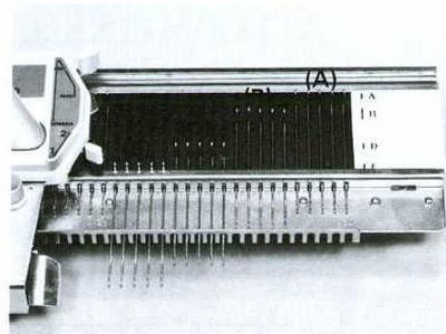


Fig.18

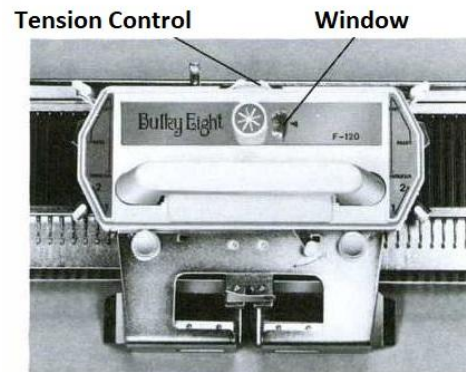


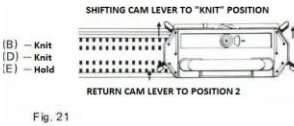
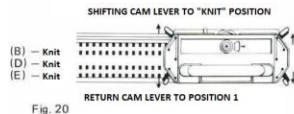
Fig.19

4. Return Cam Levers

These levers are set to two positions, namely "Position 1" and "Position 2". Each position functions as follows:

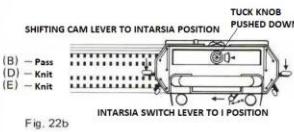
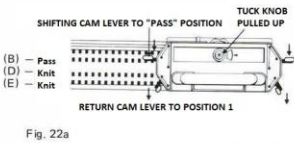
Position 1 (Fig 20) When the Shifting Cam Lever is pushed back as shown in fig 20, needles in position B, D or E will knit. Used for knitting plain stocking stitches.

Position 2 (Fig 21)
Needles in position E will not knit - only hold needles. Needles in position B and D will knit normally when the Shifting Cam Lever is pushed back as shown in Fig 21. This position is used for part knitting and pull up knitting etc.



5. Shifting Cam Levers

These cam levers control the Shifting Cam and can also be set to three positions : Pass, Knit & Intarsia. Used in conjunction with the setting of the Return Cam Lever, the two positions have the following functions: **PASS** (Fig 22a) With the tuck knob pulled up, needles in position B will not be operated by the cam and will not knit when the carriage moves across them, while needles in position D & E will knit normally, when the Return Cam Lever is brought forward. This is used when you wish to produce coloured patterns, knitting only on needles in the holding position E ... or if you need to move the carriage from one end of the needlebed to the other during knitting, without affecting the knitting on the working needles in position B.



"KNIT" Position (Figs.20 & 21)

When the return cam lever is brought forward as shown in Fig. 20, needles in positions (B), (D) and (E) will knit. When the return cam lever is pushed backward (Fig.21), needles in positions (B) and (D) will knit while needles in position (E) will not knit but hold stitches.

Tuck Knob

This controls the tuck cam and is located at the top of the carriage. The tuck knob is set to two positions, "upward position" and "downward position". (Fig.23)

Upward Position

When the knob is pulled up the tuck cam will be out of action and with the shifting cam lever in "PASS" position, will not actuate the needles in position (B) when the carriage goes across them – see Fig.22-a.

Downward Position

In this setting, and at the same time with both shifting cam lever in "PASS" position and return cam lever at "Position 1" as shown in Fig.24, needles in position (D) or (E) will knit, while needles in position (B) will come forward and pick up a strand of wool but will not knit the previous stitch.

It should be remembered that this setting is used always when the needles are selected and placed in two needle positions (B) and (E) before commencing to knit. E.g. every alternate needle in position (B) and the other needles in position (E) or every 4th needle in position (B) and the other needles in position (E) etc.

"INTARSIA" Position (Fig.22-b)

With the Intarsia switch lever shifted from "N" position to "I" position being seen on the fabric presser arm, the shifting cam levers are brought forward to "INTARSIA" position which should be used only for Intarsia design knitting. And the tuck knob is set to downward position.

For further details, see the APPENDIX (A), How to knit multi-coloured Intarsia design.

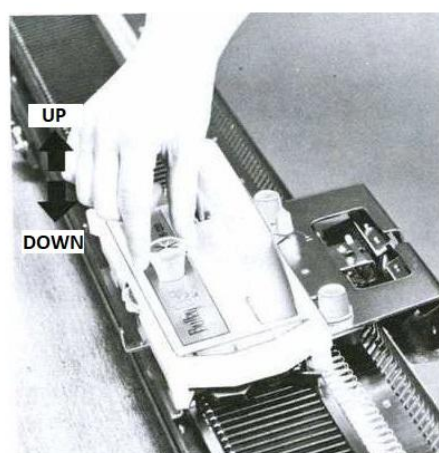


Fig.23

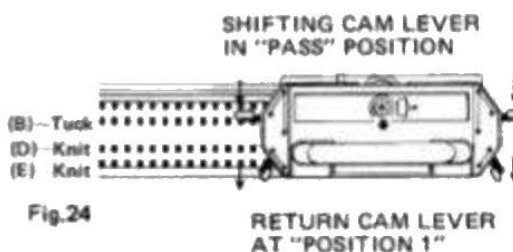





















Fig.24

The function of the needles in position (B) is known as 'tucking' which can only be done on single needles and not on adjacent needles simultaneously, e.g. can be done in formation of 1 x 1 but not 2 x 2 etc.

Needle positions and carriage lever positions and purpose

NEEDLES IN POSITION	POSITION OF			CONTROL SETTINGS	Needle Action	PURPOSE	
	Shifting Cam Lever	Tuck Knob	Return Cam Lever				
A	Any	Any	Any		None	Transporting machine. Needles are in resting position.	
B	Knit	Any	Any		KNIT	Stocking Stitch	
	PASS	UPWARD	2		PASS	Carriage passes over - without operating needles.	
			1		PASS	Carriage passes over without operating needles. Used for colour patterns when other needles in E knit.	
		DOWNWARD	2		TUCK	Needles hold previous sts, pick up new strand but do not knit.	
1				TUCK	Needles hold previous sts, pick up new strand but do not knit. Use always single needles in E will knit		
D	KNIT	ANY	2		KNIT	For manual return of needles from holding position. Needles automatically return to position and knit. Used for part knitting.	
			1		KNIT	Needles automatically returned to position B while other needles in position E also return to B and knit.	
	PASS	UPWARD	2		KNIT	These needles knit while others in position B are not operated and pass. Used for part knitting during colour patterning.	
			1		KNIT	These needles knit while others in position E also knit while needles in position B are not operated and pass.	
		DOWNWARD	2		KNIT	These needles knit - while others in position B, tuck.	
			1		KNIT	These needles knit and other needles in position E also knit. Remaining needles in position B tuck.	
	E	KNIT	UPWARD	2		HOLD	These needles hold stitches while other needles in position B will knit. Used for part knitting and pull up patterning.
				1		KNIT	Needles are automatically returned from holding position and will knit.
DOWNWARD			2		HOLD	These needles hold stitches while other needles in position B will knit.	
			1		KNIT	Needles are automatically returned from holding position and will knit	
PASS		UPWARD	2		HOLD	For holding stitches. Only needles in position D will knit. All others will be passed over by the carriage and won't knit	
			1		KNIT	These needles knit while other needles in position B are passed. Used for coloured patterning.	
		DOWNWARD	2		HOLD	Stitches held, single needles in position B will tuck and only other needles in position D will knit.	
			1		KNIT	These needles are automatically returned from holding position and knit, while single needles in position B will tuck.	

HOW TO CAST-ON AND KNIT

Threading Up The Overhead Feed Control Unit and Carriage Feeder

- (a) Pass the wool through one of the eyelets of the yarn guide wire, (Fig.25-a)
- (b) upwards between the rear yarn guide bar and friction discs, (Fig.25-b)
- (c) over and between the friction discs, (Fig.25-c)
- (d) forward through the one of the front eyelets, (Fig.25-d)
- (e) forward again through the pigtail at the end of the spring wire, (Fig.25-e),
- (f) then finally down to the carriage feeder. (Fig.26)
- (g) Slide the wool under the feeder spring plate, to allow the wool to enter the feeder eye. (Fig.26)
- (h) Turn the yarn feed control dial to an appropriate number for the thickness of wool you are going to use. (Fig.27)

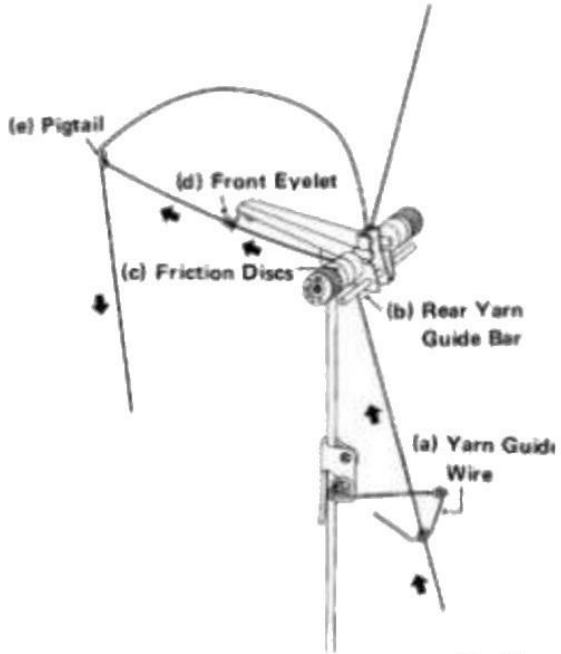


Fig.25

For finer yarn turn the dial in the plus (+) direction opposite the pointer and for thicker yarn turn in the minus (-) direction.

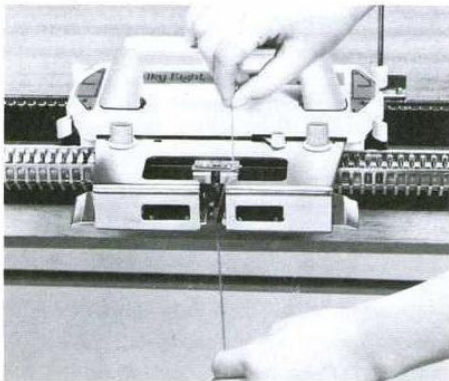


Fig.26

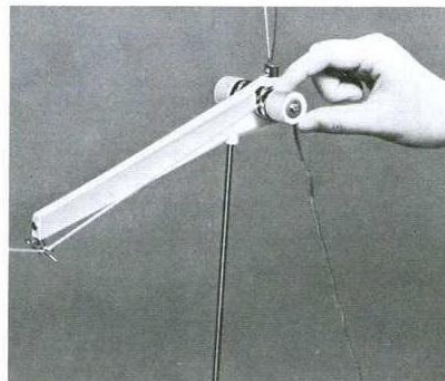


Fig.27

2. Casting-On

A. Using the divider thread

- (a) With the carriage on the right, bring both shifting cam levers back to "KNIT" position, set both return cam levers at "Position 1" and push downward the tuck knob. (Fig.28)

PUSH DOWN TUCK KNOB

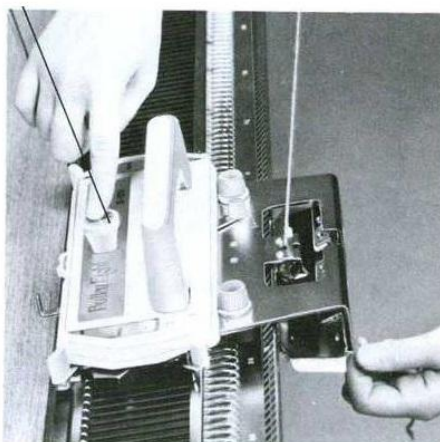


Fig. 28

- (b) Bring forward into working position (B) using the straight edge of the selector plate, the number of needles required. (Fig.29)

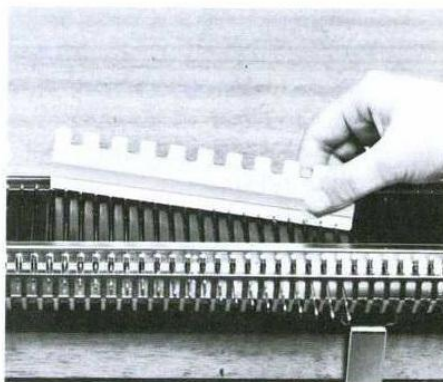
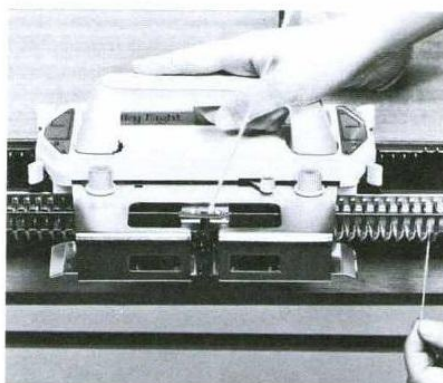


Fig.29

- (c) Holding down the loose end of the wool directly below the carriage feeder, move the carriage slowly from the right to the left across the working needles. (Fig.30)

Note : The carriage should be pushed until it clicks and has passed the last working needle.



(d) Take the end of the divider thread and pass it between the slot in the sinker plate immediately to the right of the last needle on the right hand side of the machine - and lay it along the inside of the sinker plate over the yarn loops but clear of the hooks of the needles, as shown in Fig 31 - then pass it between the slot in the sinker plate immediately to the left of the last needle.

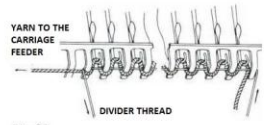


Fig. 31

Pull down both ends of the divider thread to ensure it lays neatly along the machine bed between the sinker plate and hooks of the needles.

(e) Still holding both ends of the divider thread together and pulling tightly downwards, bring forward to position E, two or three working needles at both ends over the divider thread. (Figs 32 & 33)



Fig.32

(f) Continue to hold the divider thread firmly and move the carriage back to the right. Knit 6 or more rows by moving the carriage left and right.



Fig.33

(g) Pull out (from the right) the divider thread (Fig 34)

Continue knitting.

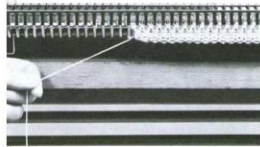


Fig.34

B. Using the cast-on weight comb

This method will ensure safe casting-on particularly when knitting with extra heavy yarn or with inelastic material like man-made fibre etc.

- (a) With the carriage on the right, push both shifting cam levers back to "KNIT" position, set both return cam levers at "Position 1" and push downward the tuck knob. (Fig.28)
- (b) Bring forward the number of needles required into working position (B).
- (c) With the 1 x 1 selector plate, push back into rest position (A) every alternate needle. (Fig.35)
- (d) Holding down the loose end of the wool directly below the carriage feeder, move the carriage slowly across the needles from right to left.

It will be seen that every alternate needle has picked up the yarn (Fig.36)

- (e) Hook the cast-on comb over the yarn so that the comb hangs in front of the sinker plate. Make sure that the comb is suspended in a horizontal position. (Fig.37) The yarn on the carriage side of the machine should be placed under the hook of the comb immediately to the left of the last needle and then brought to the front of the comb, so that it feeds freely into the needles when the carriage is moved to the right. (Fig.38)

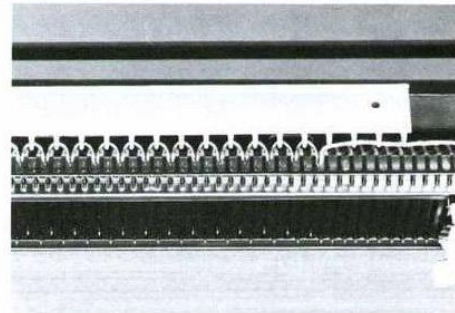


Fig.35

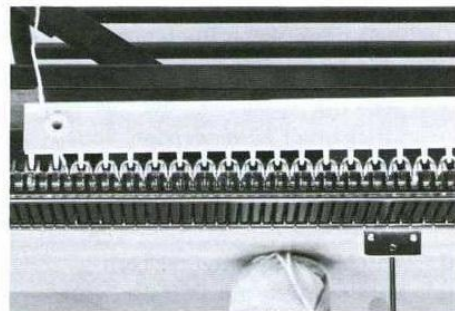


Fig.36

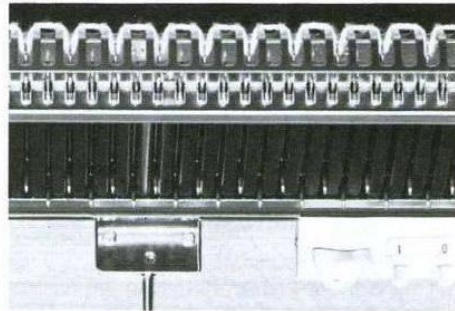


Fig.37

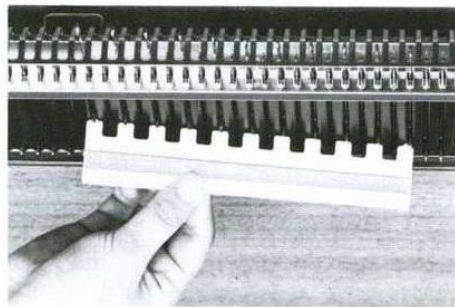


Fig.38

Note: For knitting on more than 40 needles, hook two cast-on combs at the same time over the yarn. (Fig.39) And, for knitting on full width of the machine three combs should be used.

- (f) Fasten the loose end of the wool around the round peg on the right hand end of the comb. (Fig.40)
- (g) Using the straight edge of the selector plate bring forward from the rest position (A) into position (B) every alternate needle, so that all the working needles are now aligned in position (B).
- (h) Move the carriage back to the right, and all needles will engage the wool. Move the carriage backwards and forwards across the working needles.

Note: When knitting with extra heavy yarn, it is advisable to use the selvedge weights all the time during knitting. The weights should be moved up the knitted fabric after every 15 to 20 rows as the knitting proceeds. (Fig.41)

3. Waste Knitting

- (a) Cast-on with old yarn by either of the preceding methods and knit 5 or more rows.
- (b) Remove the yarn from the feeder, and re-thread feeder with the divider thread.
- (c) Knit one row only with the divider thread feeding it with your left hand, then take it out of the feeder.
- (d) Remove divider thread from feeder and re-thread feeder with the new yarn.



Fig.39

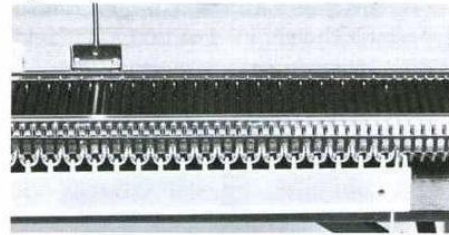


Fig.40

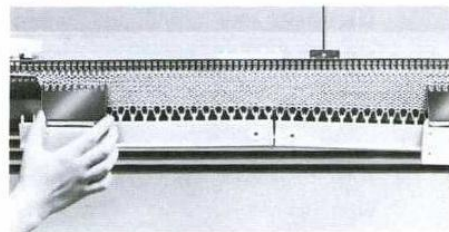


Fig.41

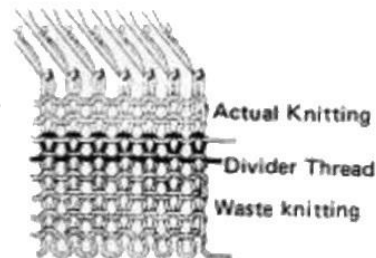


Fig.42

- (e) Turn the tension control dial to suit the thickness of new yarn, and knit with the new yarn.
- (f) After completing the piece of knitting, pull out the divider thread. This will separate the waste knitting piece from the main piece, leaving a neat cast-on edge. (Fig.42)

BASIC INFORMATION FOR SUCCESSFUL KNITTING

1. Knitting A Measurement Sample Swatch

Before attempting to knit a garment it is advisable to knit a sample swatch from which you can check the tension of the fabric, i.e. the number of stitches and rows per inch. The measurement sample swatch should be knitted over a convenient number of stitches, say 30, and to a length of 60 or 70 rows for accuracy.

Now, remove the swatch from the machine and allow it to relax for at least 8 hours (overnight is better).

Count the number of stitches and rows within a 4" square at the centre of the swatch but avoid stretching. If it counts 20 stitches and 28 rows per 4" square, then 20 divided by 4 equals 5, and 28 divided by 4 equals 7.

Therefore your tension is 5 stitches and 7 rows to 1 inch.

2. Use Of The Transfer Tool

A. For moving a stitch from one needle to the next

- (a) Place the eye of the tool into the open needle hook. (Fig.43-a)
- (b) Draw the needle forward by pulling the tool until the stitch is behind the open latch. (Fig. 43-b)
- (c) Push the needle back until the stitch slides off the needle onto the stem of the tool. (Fig.43-c)
- (d) Lift the eye of the tool out of the needle hook and place it into the hook of the next needle. (Fig. 43-d)
- (e) Tilt the tool upward so that the stitch will slide down the stem and into the needle hook.

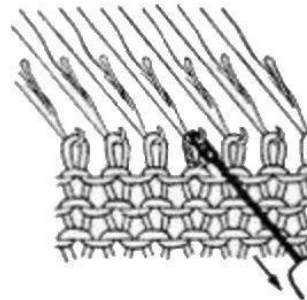


Fig.43 - a

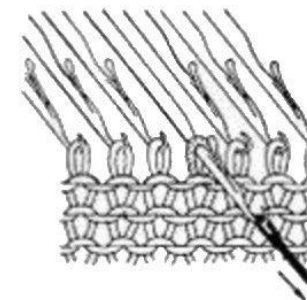


Fig.43 - b

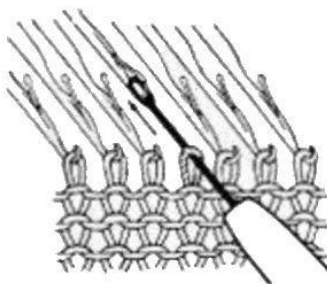


Fig.43 - c

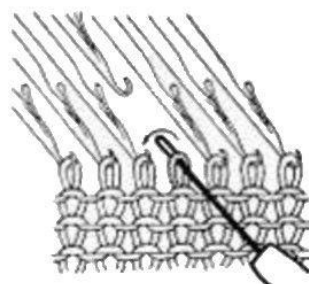


Fig.43 - d

B. For picking up a dropped stitch one row

(a) Push the single eye transfer tool through the loop of the dropped stitch. (Fig. 44-a)

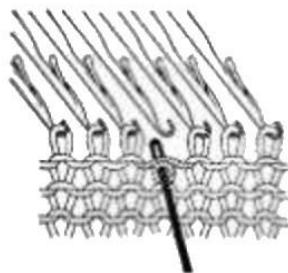


Fig.44 - a

(b) Pick up the stitch together with the loose strand of yarn and place them into the empty needle hook. (Fig. 44-b)

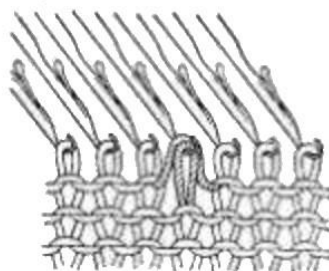


Fig.44 - b

(c) Hold up the loose strand of yarn with the tool and push the machine needle forward until the loop passes behind the latch, and leave the loose strand in the hook. (Fig. 44-c)

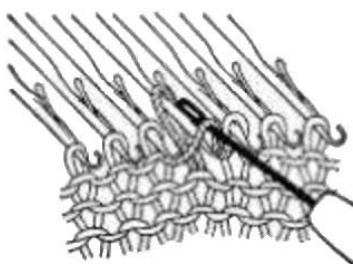


Fig.44 - c

(d) Push the needle back until the loop passes over the closed latch and re-forms the stitch. (Figs. 44-d & e)

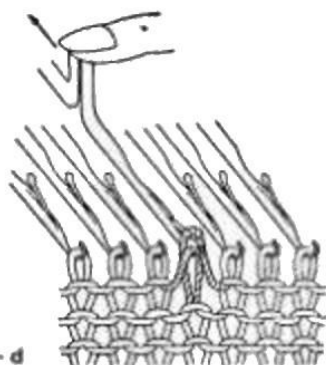


Fig.44 - d

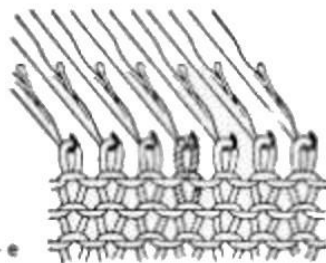


Fig.44 - e

3. Use Of The Latch Needle Tool

A. For ribbing

- (a) Drop a stitch from the machine needle down to one row above where the ribbing is to start, and insert the latch needle tool. (Fig. 45-a)
- (b) Push the tool forward under the strand above the loop until the loop is behind the latch. (Fig.45-b)
- (c) Pull the tool back, and the loop closes the latch over the strand caught in the hook. (Fig. 45-c)
- (d) Continue to pull the tool back until the strand is pulled through the loop forming a new loop. (Fig. 45-d)
- (e) Repeat and knit up the stitch. (Figs. 45-e & f)
- (f) Place the final loop back on the empty needle (Fig. 45-g)

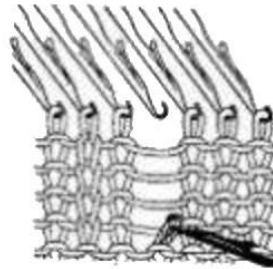


Fig.45 - a

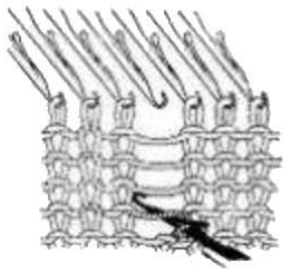


Fig.45 - b

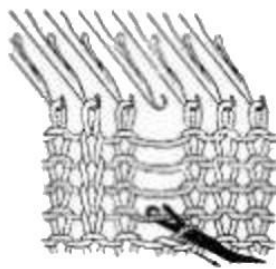


Fig.45 - c

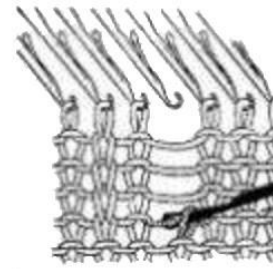


Fig.45 - d

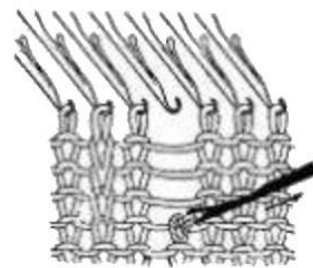


Fig.45 - e

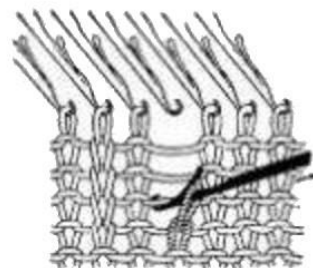


Fig.45 - f

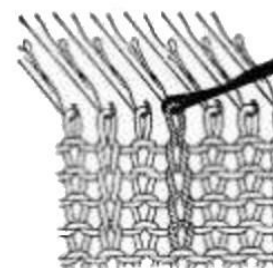


Fig.45 - g

(B) For picking up a dropped stitch more than one row

- (a) Insert the tool from the back of the work into the loop below the dropped stitch. Push the tool towards you so that the hook passes under the strand of yarn and the loop is behind the latch. (Fig. 46-a)

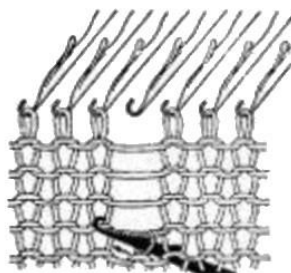


Fig.46 - a

- (b) Pull the tool back so that the latch closes over the strand of yarn in the hook. (Fig.46-b & c)

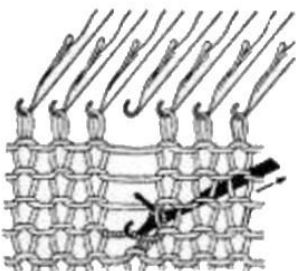


Fig.46 - b

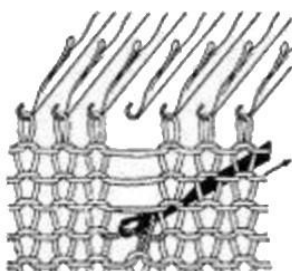


Fig.46 - c

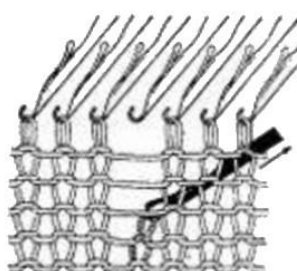


Fig.46 - d

- (c) Continue to pull the tool back until the strand is drawn through the loop forming a new loop. (Fig.46-d)
- (d) Repeat and continue to knit up until the last strand has been re-knitted. Place the final loop onto the empty needle. (Fig. 46-e)

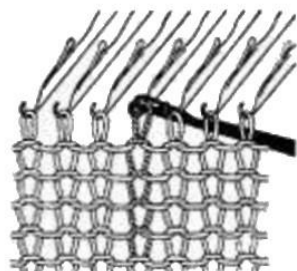


Fig.46 - e

How To Make A Hem

- (a) Cast-on and knit until the piece is twice as long as the depth of the hem.
- (b) Turn the knitting up towards you, and using the transfer tool place the cast-on loops onto the corresponding needles.
- (c) When all the loops have been placed onto the needles, pull the needles forward into holding position (E), at the same time keeping the knitting back against the sinker plate so that all the loops are behind the open latches.
- (d) Bring forward the return cam levers to "Position 1" and knit the first row slowly to complete the double hem.
- (e) Continue to knit.

5. How To Make A Hem With Picot Edge

- (a) Cast-on and knit half the number of rows required for the hem, i.e. if 30 rows knit 15.
- (b) Transfer with the single eye transfer tool the stitch from the 2nd needle on to the 3rd needle and from 4th to 5th, and so on to the end, leaving a stitch on each end needle.
- (c) Bring forward empty alternate needles with other all working needles into position (E), and knit the remaining number of rows for the hem, i.e. 15 rows if the total is 30.
- (d) Now, complete the hem by turning up and hooking onto the needles the cast-on loops.
- (e) Knit one row slowly, and continue to knit.

6. Increasing

A. Increasing one stitch at the start of a row

At the same end nearest the carriage, bring forward from position (A) into position (B) the next empty needle, and knit. (Fig.47)

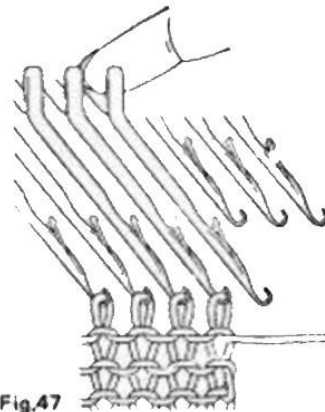


Fig.47

B. Increasing one stitch at either or both ends simultaneously

(a) Push out the next empty needle into the position (B).

(b) Using the double eye transfer tool, transfer the first two stitches so that the first stitch is on the empty needle and the second stitch is on the adjacent needle, leaving the third needle empty. (Fig.48-a)

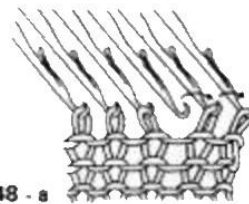


Fig.48 - a

(c) With the single eye transfer tool pick up a loop from the next stitch one row below, and place it in the empty third needle. (Fig.48-b)

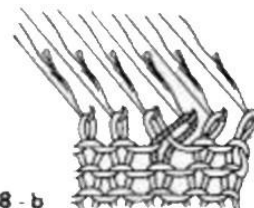


Fig.48 - b

C. Increasing one stitch in the middle of a row

- (a) Bring forward one empty needle from position (A) into position (B) at the end nearest to the point of increase.
- (b) With the treble eye transfer tool move three end stitches outwards leaving 4th needle empty.
- (c) Continue to move the stitches outwards until you have an empty needle at the point where you wish to increase. (Fig.49-a)
- (d) Pick up a loop from the previous row, and place it on the empty needle. (Fig.49-b)

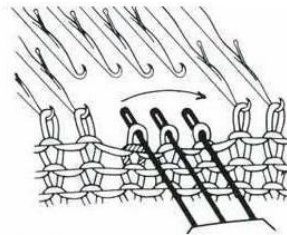


Fig.49 - a

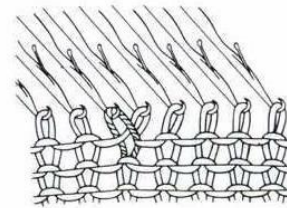


Fig.49 - b

D. Increasing more than one stitch at the same time

- (a) At the same end as the carriage, bring forward from position (A) into holding position (E) the required number of needles.
- (b) Wind the yarn from the carriage feeder once around the stems of each of these needles. Be sure that the newly formed loops are behind the open latches. (Fig.50)
- (c) Pull forward the leading return cam lever to "Position 1" and move carriage slowly across the working needles for the next three or four rows. It is advisable to hang the selvedge weight on the increased stitches. (Fig.51)



Fig.50

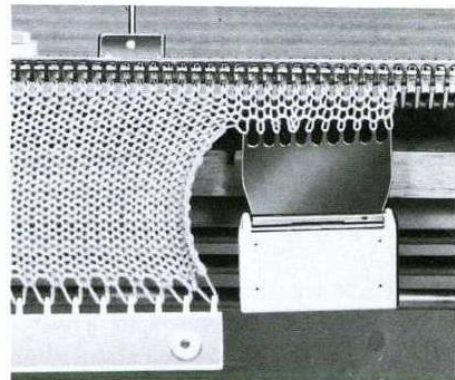


Fig.51

7. Decreasing

A. Decreasing one stitch at either or both ends simultaneously

METHOD 1

- (a) With the single eye transfer tool, transfer the stitch from the end needle onto the 2nd needle. (Fig.52)
- (b) Push the empty needle back to position (A).

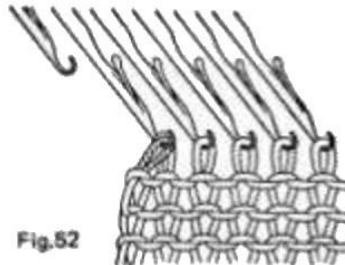


Fig.52

METHOD 2

- (a) With the single eye transfer tool, transfer the stitch from the 3rd needle onto the 2nd needle from the end. (Fig.53-a)
- (b) With the double eye transfer tool, transfer the stitches from the two end needles onto the 2nd and 3rd needles. (Fig.53-b)
- (c) Push the empty needle back to position (A).

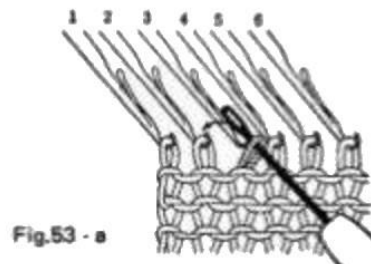


Fig.53 - a

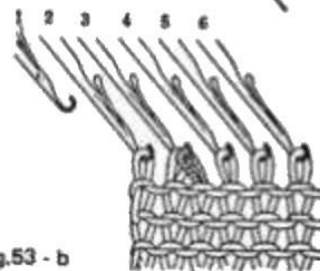


Fig.53 - b

B. Decreasing one stitch in the middle of a row

- (a) Using the single eye transfer tool, transfer the stitch from the needle where you wish to decrease onto the next needle towards the centre. (Fig.54-a)
- (b) With the treble eye transfer tool, move all the stitches over until the end needle is empty. (Fig.54-b)
- (c) Return the empty end needle to position (A).

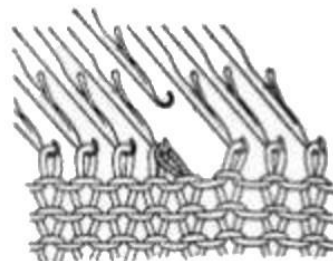


Fig.54 - a

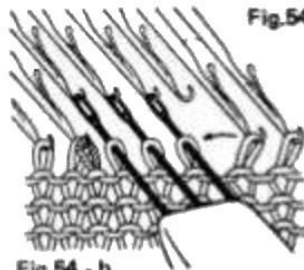


Fig.54 - b

C. Decreasing more than one stitch at the same time

- (a) At the same end as the carriage, transfer the stitch with the single eye transfer tool from the 2nd needle onto the 1st needle. (Fig.55-a)
- (b) Bring forward the 1st needle until the two stitches on it are behind the latch and place the yarn from the carriage feeder into its hook. (Fig.55-b)
- (c) Push the needle back until the two stitches pass over the closed hook and form a single stitch. (Fig.55-c)
- (d) Transfer this single stitch onto the empty 2nd needle. (Fig.55-d)
- (e) Repeat until the desired number of stitches have been decreased. Push empty needle back to position (A).



Fig.55 - a



Fig.55 - b

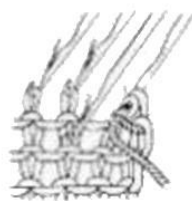


Fig.55 - c

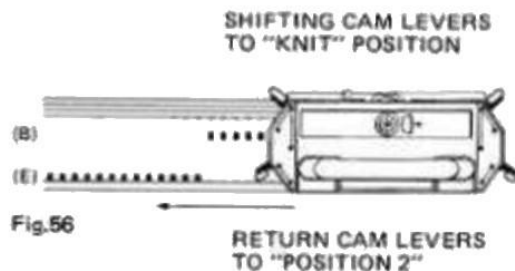


Fig.55 - d

8. Part Knitting

A. Increasing slope

- (a) Push back the shifting cam levers to "KNIT" position and also the return cam levers to "Position 2" on each side. (Fig.56)
- (b) At the opposite end to the carriage, keep the fabric back against the sinker plate and at the same time bring forward into holding position (E) from working position (B) the number of needles not required for the increase. (Fig.56) Knit one row.



- (c) **Pass** the yarn under the end needle in position (E) nearest the needles in position (B), leaving it over the other needles in position (E). (Figs.57 & 58)
Knit one row.

Note: Failure to do this will cause a hole in the fabric.

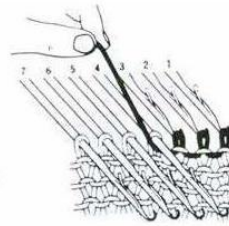


Fig.57

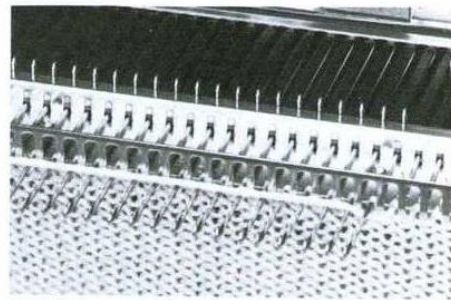


Fig.58

- (d) Push back from position (E) into position (D) the number of needles according to the degree of slope required. Knit one row. (Fig.59) It will be seen that the needles pushed back to position (D) will knit and, will be automatically returned to position (B).

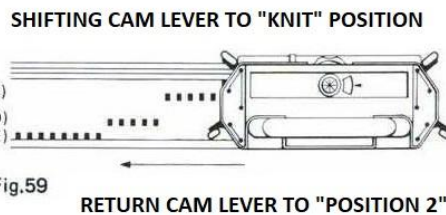


Fig.59

- (e) Repeat from (c) to (d) until increasing slope has been completed. Bring forward both return cam levers to "Position 1" and knit one row to form a neat edge.

Note: If the fabric leans sharply, it is advisable to hang the selvedge weight below the end needles. (Fig.60)



Fig.60

B. Decreasing slope

- Push back the shifting cam levers to "KNIT" position and also the return cam levers to "Position 2" on each side. (Fig.61)
- At the opposite end to the carriage, bring forward into position (E) from position (B) the required number of needles. (Fig.61)
Knit one row.
- Pass the yarn under the end needle in position (E) nearest the needles in position (B). (Fig.62)
Knit one row.
- Bring forward from position (B) into position (E) the required number of needles farthest from the carriage. (Fig.63)
Knit one row.
- Repeat from (c) to (d) until you have completed the slope. Bring forward the return cam levers to "Position 1" on each side and continue to knit.

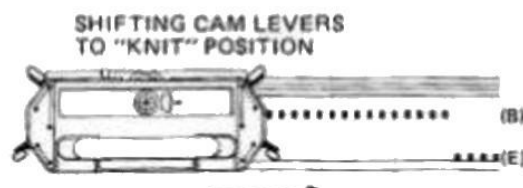


Fig.61 RETURN CAM LEVERS TO "POSITION 2"

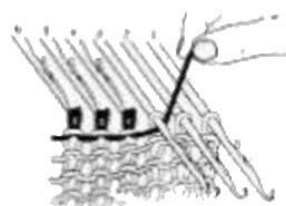


Fig.62

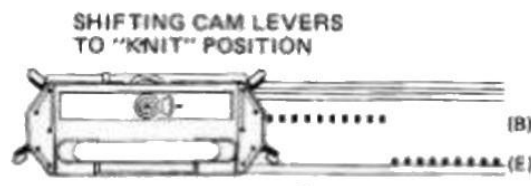


Fig.63 RETURN CAM LEVERS TO "POSITION 2"

9. How To Pull Back A Row Of Knitting

- Hold the fabric down gently with one hand.
- With the other hand pull the yarn in line with the needle bed until it forms a straight line across the needle hook. (Fig.64)
- Still holding the fabric, continue to pull the yarn in a sideways and upwards direction and the yarn will lift out of the needles bringing the loops of the previous row into the needle hooks.
- Bring all working needles into position (E), and with return cam levers in forward position, "Position 1", knit first row slowly.

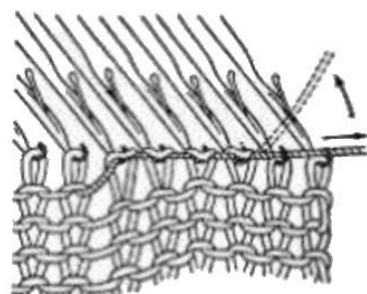


Fig.64

10. How To Release Carriage Clear Of Needles

Force must never be used to operate the carriage. In the event of the carriage jamming, do not use force to free it but proceed as follows:

- (a) Unscrew the two plastic nuts, and remove the fabric presser arm. (Fig.65)
- (b) Lift front of the carriage clear of front runner rail and needles. (Fig.66)
Move the carriage to the end of the machine.
- (c) Locate and remedy cause of carriage jamming, and if necessary pull back one row of knitting.
- (d) Replace carriage and fabric presser arm. Continue to knit.

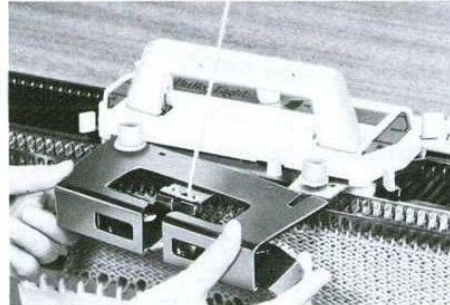


Fig.65

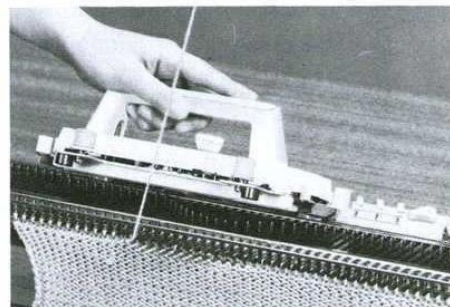


Fig.66

11. How To Change A Needle

- (a) Pull out the needle holder rod until the opposite end is clear of the needle you wish to change. (Fig.67)
It is not necessary to withdraw the rod completely.
- (b) Bring the needle forward and, lift up by the needle butt and press down slightly on the needle hook so that the tail of the needle comes up through the slot. Push the needle back until the tail passes over the rear runner rail and the hook end comes out through the slot. (Fig.68)
- (c) Replace the new needle by reversing the process, and push the rod back into position.

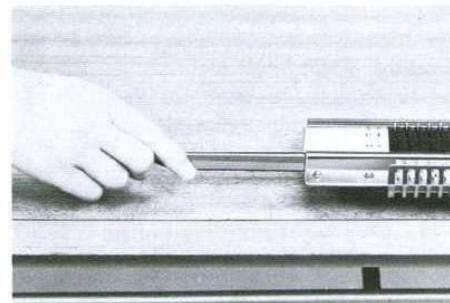


Fig.67

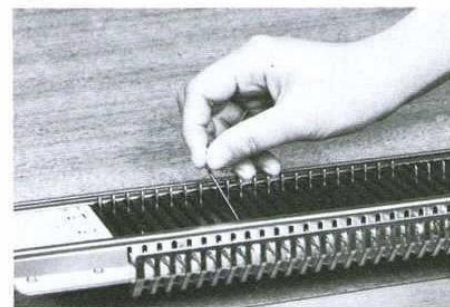











Fig.68

FANCY PATTERNS

Knitting Symbols On The Pattern Chart

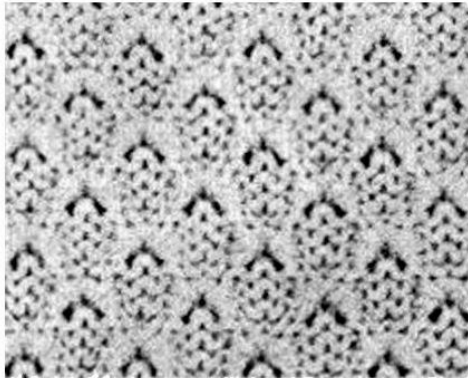
	Tucking Stitch	Needle picks up a strand of wool but does not knit the previous stitch.
	Holding Stitch	Needle holds the stitch and does not knit.
	Knit Stitch	Face loop of stocking stitch.
	Purl Stitch	Back loop of stocking stitch.
	Cross Stitch	Transfer the stitches with the left stitch over the right.
	Cross Stitch	Transfer the stitch with the right stitch over the left.
	Colours	'A' is the 1st colour and 'B' the 2nd colour.

Abbreviations In The Instruction & Illustration

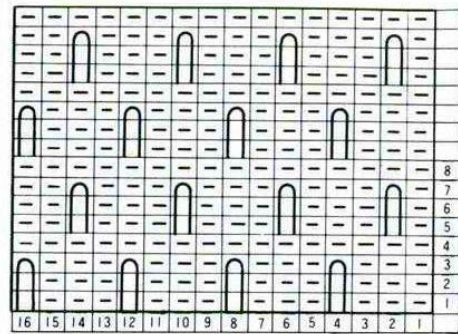
SCL	–	Shifting Cam Lever
RCL	–	Return Cam Lever
TK	–	Tuck Knob
M.C.	–	Main Colour
C.C.	–	Contrasting Colour
	–	Tuck knob in upward position
	–	Tuck knob in downward position

Pattern 2

Pull-up Knitting In One Colour



- (a) Set both SCLs in "KNIT" position and at the same time set both RCLs at "Position 2". (Fig.72)
- (b) With carriage on right. Using 3 x 1 selector plate, bring forward into position (E) from position (B) every 4th needle from right end. (Fig.72)
Move carriage across needles from right to left to knit 1st row.
- (c) With carriage on left. Move carriage back to right to knit this row.
- (d) Knit one row from right to left.
- (e) With carriage on left, pull forward the leading (right hand) RCL to "Position 1". (Fig. 73)
Knit one row. All the needles now knit stitches and are aligned in position (B).
- (f) With carriage on right, return the trailing RCL (right hand) to "Position 2". (Fig.74)
Push forward into position (E) every 4th needle starting with 2nd needle from right end needle. Knit one row from right to left.



(PURL SIDE)

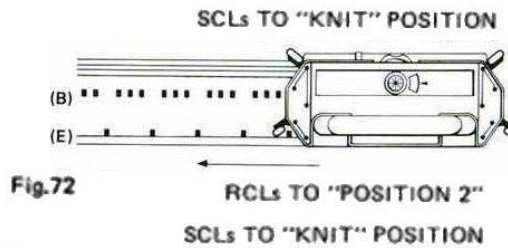


Fig.72

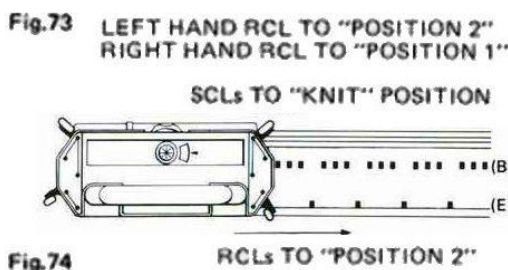


Fig.74

- (g) With carriage on left. Knit one row.
 - (h) With carriage on right. Knit one row.
 - (i) With carriage on left, pull forward the right hand RCL to "Position 1".
Knit one row.
- Repeat from (b) to (i).

Move the carriage across needles from right to left.

It is seen that every 4th needle pushed back to position (D) before commencement of the last row has now automatically returned to position (B).

- (d) Move the carriage to the right to knit 4th row.
- (e) Carriage now on right. With the straight edge of the 3 x 1 selector plate push back into position (D) from position (E) every alternate holding needle.

Keeping the fabric back against the sinker plate, at the same time push forward into position (E) from position (B) every 4th needle starting with 2nd needle from right end. (Fig.78)

Knit 2 rows. (5th and 6th row)

- (f) With the carriage on right, using the straight edge of 1 x 1 selector plate, push back from position (E) into position (D) every 4th holding needle, and bring forward into position (E) from position (B) every alternate needle starting with right end needle. (Fig.79)

Knit 2 rows. (7th and 8th row)

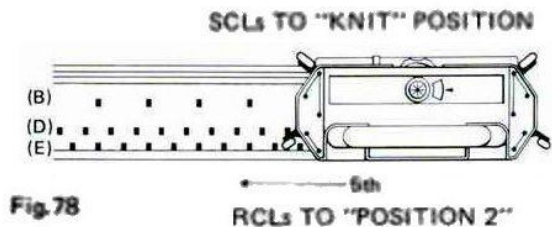


Fig.78

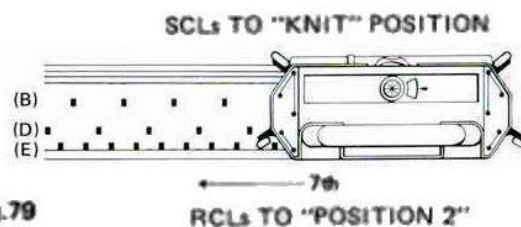


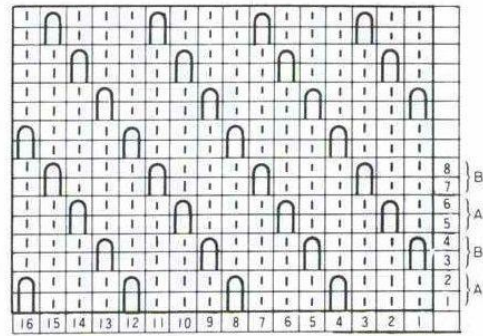
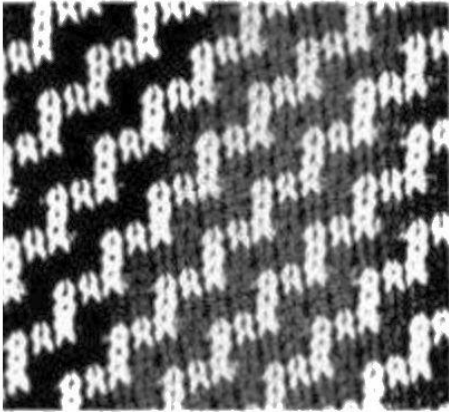
Fig.79

- (g) With carriage on right, push back into position (D) from position (E) every alternate holding needle.

Repeat from (b) to (g). Cast-on weight comb should be moved up the knitting after every 15 to 20 rows as the knitting proceeds.

Pattern 4

Two Colour Pull-Up Knitting On Successive Rows



KNIT SIDE

- (a) Thread up two strands of yarn (M.C. and C.C.) through the overhead feeder unit. Hook C.C. to yarn clip on the feeder rod. (Fig.80)
Set both SCLs in "KNIT" position and push both RCLs back to "Position 2".
- (b) With carriage on right, thread M.C. through the carriage feeder. Using 3 x 1 selector plate bring forward into position (E) from position (B) every 4th needle starting with 4th needle from right end. (Fig. 81)
Knit 2 rows with M.C.



Fig.80

SCL's IN "KNIT" POSITION

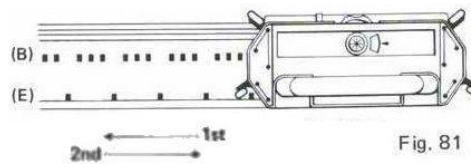


Fig. 81

RCL's IN POSITION "2"

- (c) With carriage on right, remove M.C. from carriage feeder, pull and place it at the right end of the needle bed. (Fig.82)

Re-thread feeder with C.C.

Push back into position (D) from (E) every 4th holding needle, and push forward from (B) to (E) every 4th needle starting with extreme end needle on the right. (Fig.83)

Knit 2 rows with C.C.

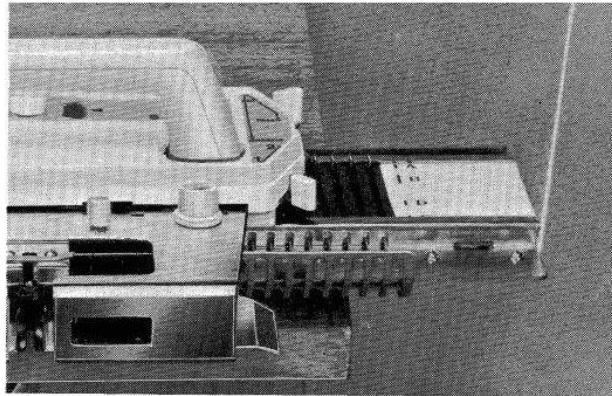


Fig.82 **SCL's TO "KNIT" POSITION**

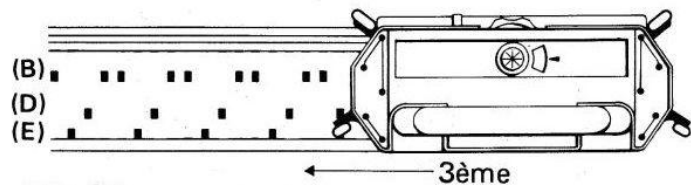


Fig. 83

RCL's TO POSITION "2"

- (d) With carriage on right, replace C.C. with M.C. Push back into position (D) from position (E) every 4th holding needle and, bring forward from position (B) into position (E) every 4th needle starting with 2nd needle from right end. (Fig.84)

Knit 2 rows with M.C.

SCL's TO "KNIT" POSITION

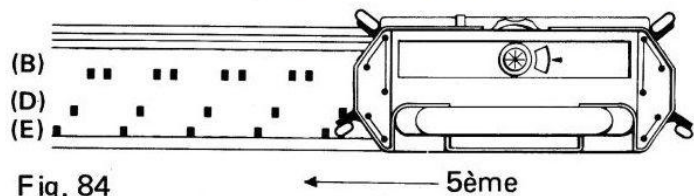


Fig. 84

RCL's TO POSITION "2"

- (e) With carriage on right, change to C.C. Push back needles to position (D) from (E), and bring forward from (B) to (E) every 4th needle starting with 3rd needle from right end. (Fig.85)

Knit 2 rows with C.C.

Repeat from (b) to (e).

SCL's TO "KNIT" POSITION

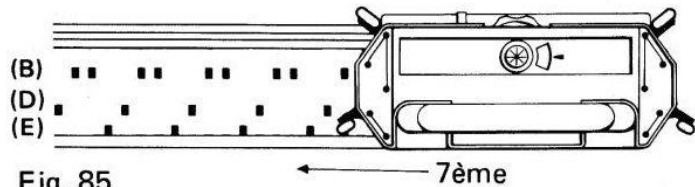
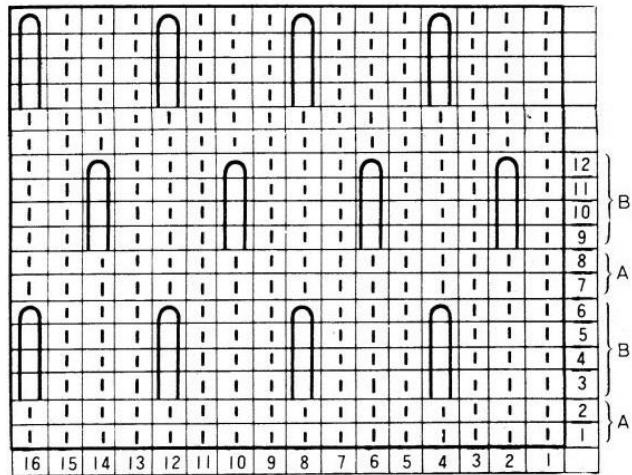
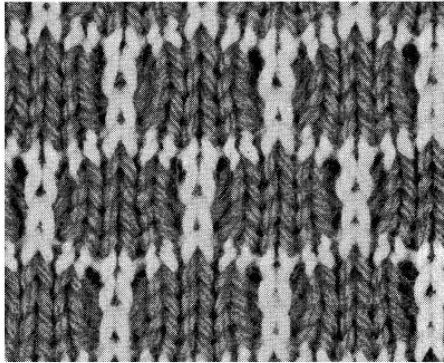


Fig. 85

RCL's TO POSITION "2"

Pattern 5

Pull-Up Knitting In Two Colours



Knit Side

(a) Thread up two strands of yarn (MC & CC) into overhead tension unit. Hook CC yarn end, to the yarn mast clip.

(b) Carriage at right - set both SCL's to "knit" position and both RCL's to position "1" (Fig 86). Knit 2 rows stocking stitch with MC across all needles in B - from right to left - and back to right. (Fig 86).

(c) Carriage at right - push back both RCL's to position "2". Using 3 x 1 needle selector, bring forward (from B to E) every 4th needle, starting at 4th needle from the right. Change to CC yarn, knit 4 rows (Fig 87).

(d) Carriage at right - push forward both RCL's to position "1". Change to MC and knit 2 rows of stocking stitch (Fig 88).

(e) Carriage at right - push both RCL's to position "2" and change to MC. Bring forward (from B to E) every 4th needle starting at 2nd needle on the right. Knit 4 rows (Fig 89)

Continue by repeating pattern from (b) to (e) as shown above.

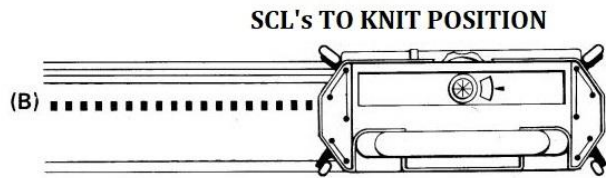


Fig. 86

← 1ST
← 2ND
RCL'S TO POSITION 1

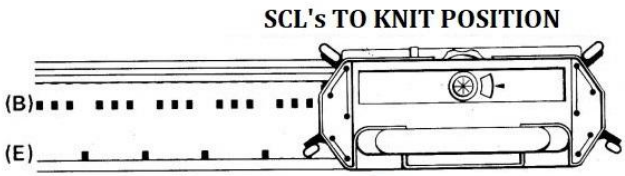


Fig. 87

← 3RD
← 4TH
← 5TH
← 6TH
RCL'S TO POSITION 2

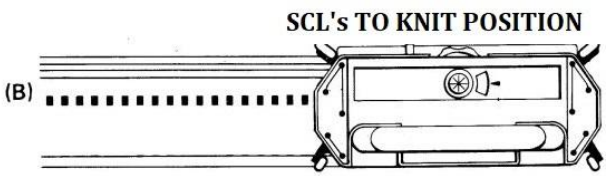


Fig. 88

← 7TH
← 8TH
RCL'S TO POSITION 1

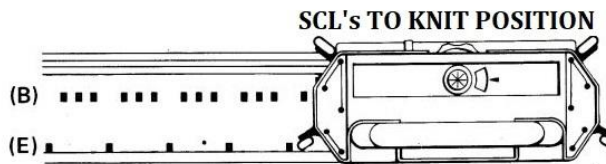
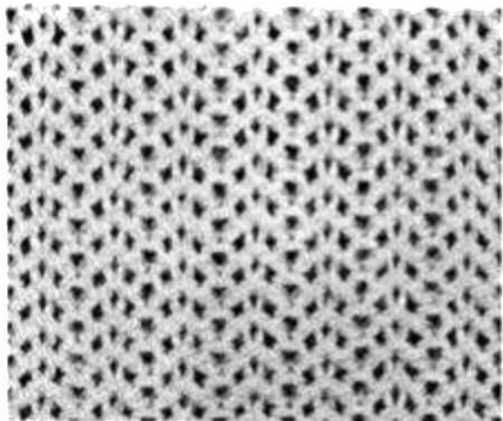


Fig. 89

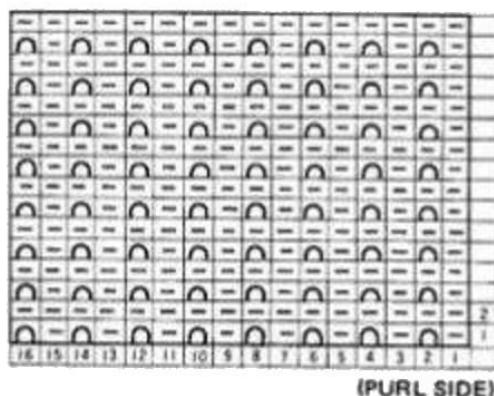
← 9TH
← 10TH
← 11TH
← 12TH
RCL'S TO POSITION 2

Pattern 6

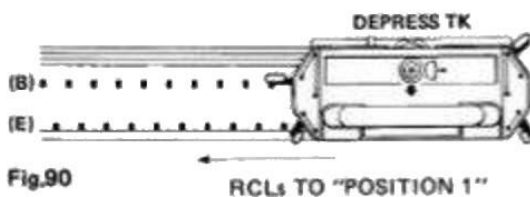
Tucking Stitches On Every Other Row



The tucking pattern in 1 knit 1 tuck formation as referred to in the chart of this pattern can also be produced when depressing the tuck knob into action. This method is known as 'tucking' and the formation of the stitches is the same as for 'pull-up knitting', but the tucking pattern has a slightly more raised effect on the garment.



RIGHT HAND SCL TO "KNIT" POSITION
LEFT HAND SCL TO "PASS" POSITION



- Cast-on using the cast-on weight comb.
- With carriage on right, push downwards TK, and push forward both left and right hand RCLs to "Position 1". Set the right hand SCL to "KNIT" position and the left hand to "PASS" position, (Fig.90)
- Bring forward, using the 1 x 1 selector plate, into position (E) from position (B) every alternate needle starting with the extreme end needle on the right – see also Fig.90.

Every alternate needle in position (E) will knit while other needles in position (B) will pick up a strand of wool but will not knit the previous stitch.

Knit one row from right to left.

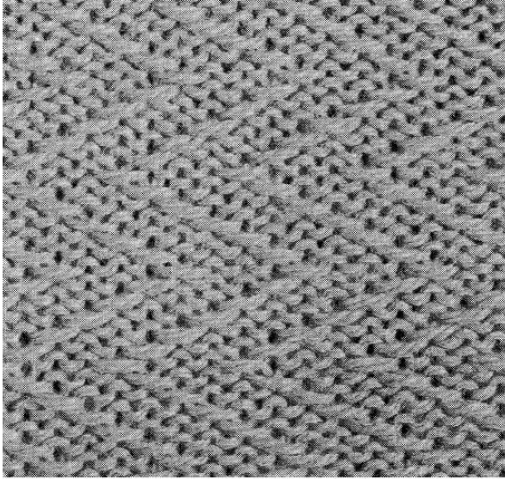
It will be seen that the needles brought forward into position (E) before starting the row will have returned to (B).

- Knit one row of plain stocking stitches across needles from left to right.

For pattern repeat from (c) to (d).

Pattern 8

Slip Stitch Zig-Zag Pattern In One Colour



∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-			
-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-		
-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-		
-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-		12
∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇		11
-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-		10
-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-		9
-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-	-	-	∇	-		8
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16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1							

(PURL SIDE)

- (a) With the carriage on right.
Set both SCLs to "PASS" position, and pull upward TK. Leaving in Position (B) every 4th needle starting with the extreme end needle on the right, draw out all other working needles to position (E). (Fig.92)

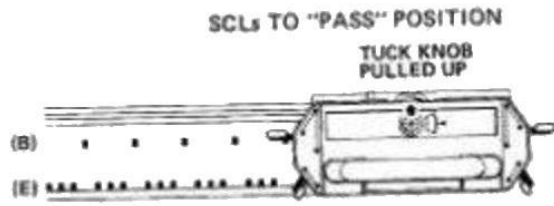


Fig.92

RCLs TO "POSITION 1"

To do this, first using the straight edge of selector plate push forward slightly all the working needles so that they align between position (B) and (D). (Fig.93)

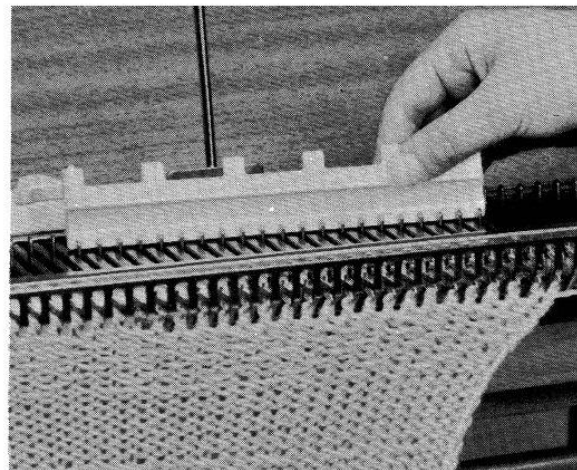


Fig 93

Then, with the teeth of the selector plate return into position (B) every 4th needle leaving other needles in position between (B) and (D). (Fig.94)

Finally with the straight edge of the selector plate draw out to position (E) needles placed in between (B) and (D). (Fig.95)

Knit one row from right to left, and the needles in position (E) will have returned and aligned along with the others in position (B).

- (b) With the carriage on left. Proceed in the same manner as explained in (a) above, and draw out the needles to position (E) leaving every 4th needle in position (B). But every 4th needle to remain in position (B) should start with the 2nd needle from right end needle, which means that the tucking stitch formation is moved to each left adjacent needle. Knit one row.

Repeat and knit upto 7th row, but moving the position of tucking needles to each left adjacent needle each row, and from 8th to 12th proceed in reverse order.

Repeat the above procedure for complete pattern.

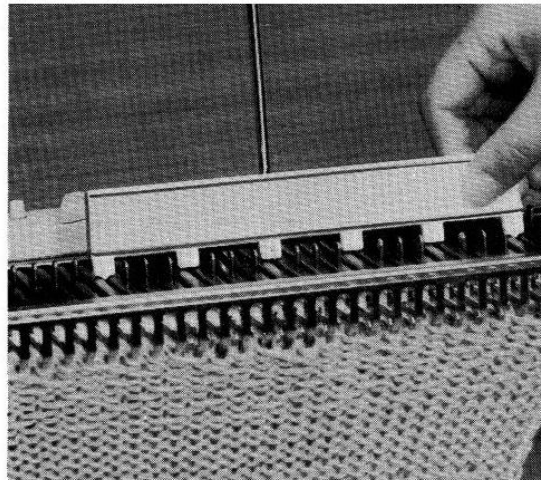


Fig.94

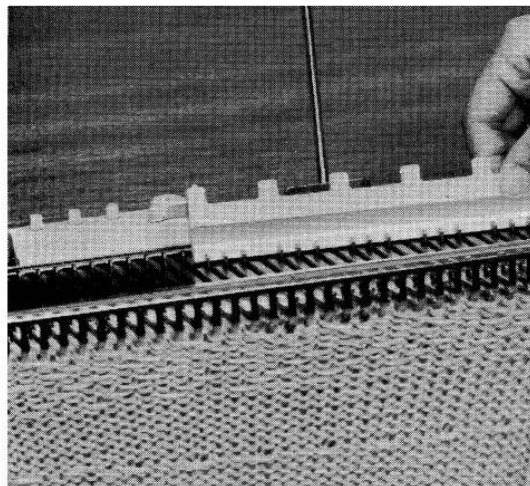
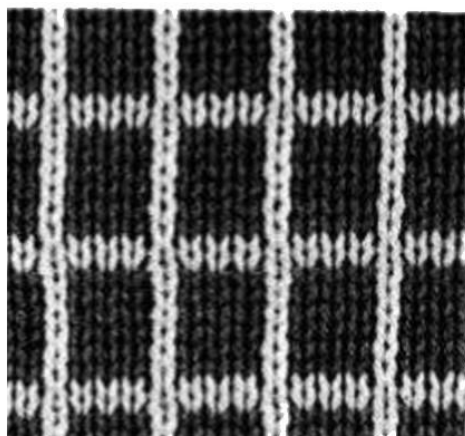


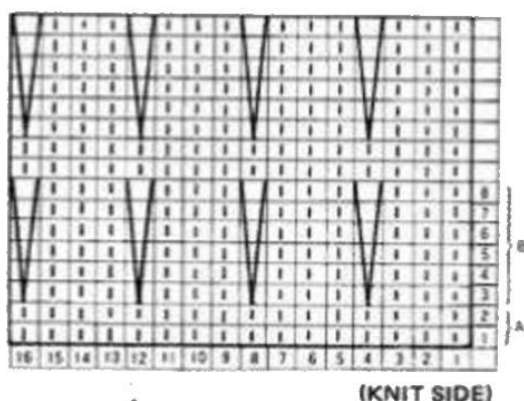
Fig.95

Pattern 9

Slip Stitch Pattern In Two Colours – Large Check Pattern



- (a) With carriage on right, set SCLs to "KNIT" position. Bring forward RCLs to "position 1" and pull upward TK. (Fig.96)
- (b) Knit two rows of plain stocking stitches with M.C.
- (c) With carriage on right. Change to C.C. and move both SCLs to "PASS" position.
- Leaving every 4th needle from right end in position (B) push forward into position (E) all other needles. (Fig.97-a) Knit one row.
- (d) With carriage on left, unthread the C.C. from the carriage feeder and move the carriage from left to right across the working needles. Using 3 x 1 selector plate, push forward into position (E) every 4th needle from the right end, leaving all other needles in position (B). (Fig.97-b) Re-thread the M.C. through the feeder and Knit one row. •



(e) Repeat from • to • further 3 times.

(f) With carriage on right, set SCLs to "KNIT" position.

Repeat from (b) to (f).

SCLs TO "KNIT" POSITION

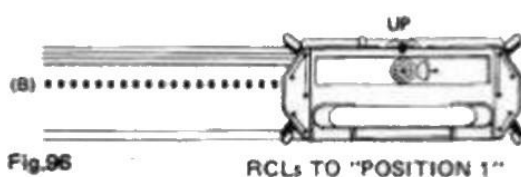


Fig.96

BOTH SCLs TO "PASS" POSITION

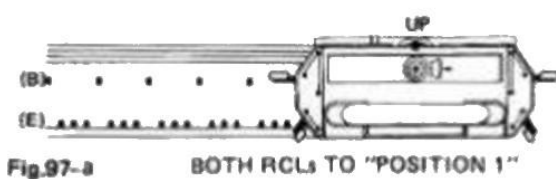


Fig.97-a

BOTH SCLs TO "PASS" POSITION

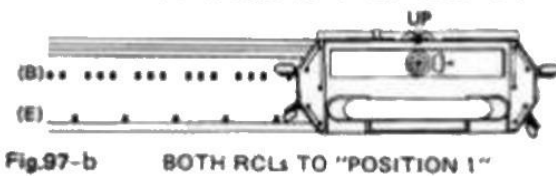
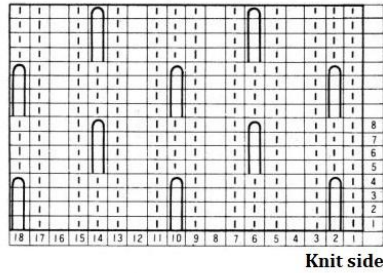
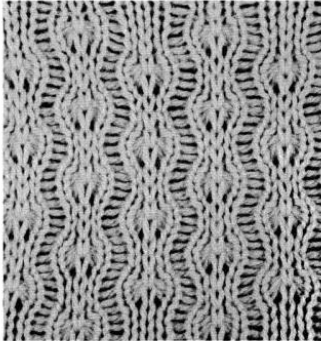


Fig.97-b

Pattern 10

Pull-Up Stitches – Mock Cable



Knit side

- (a) Before commencing to knit, transfer every 4th stitch, starting with 4th needle from right end, to each adjacent needle, and those empty needles should be pushed back to the rest position (A). Push back SCLs to "KNIT" position and RCLs to "Position 2".
- (b) Push forward into position (E) with your finger every 8th needle starting with 2nd needle from the right end. (Fig.98) Knit 4 rows.
- (c) Push back into position (D) from position (E) every 8th holding needle, and bring forward from position (B) into position (E) another series of every 8th needle starting with 6th needle from the right end. (Fig. 99) Knit 4 rows. Push back into position (D) from position (E) every 8th holding needle. Repeat from (b) to (c) above.

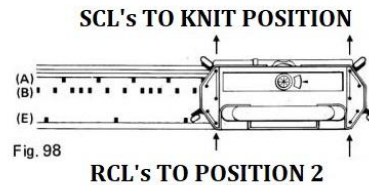


Fig. 98

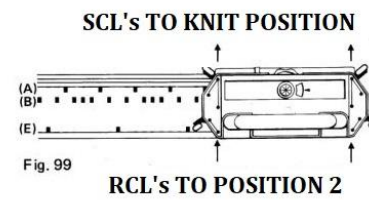
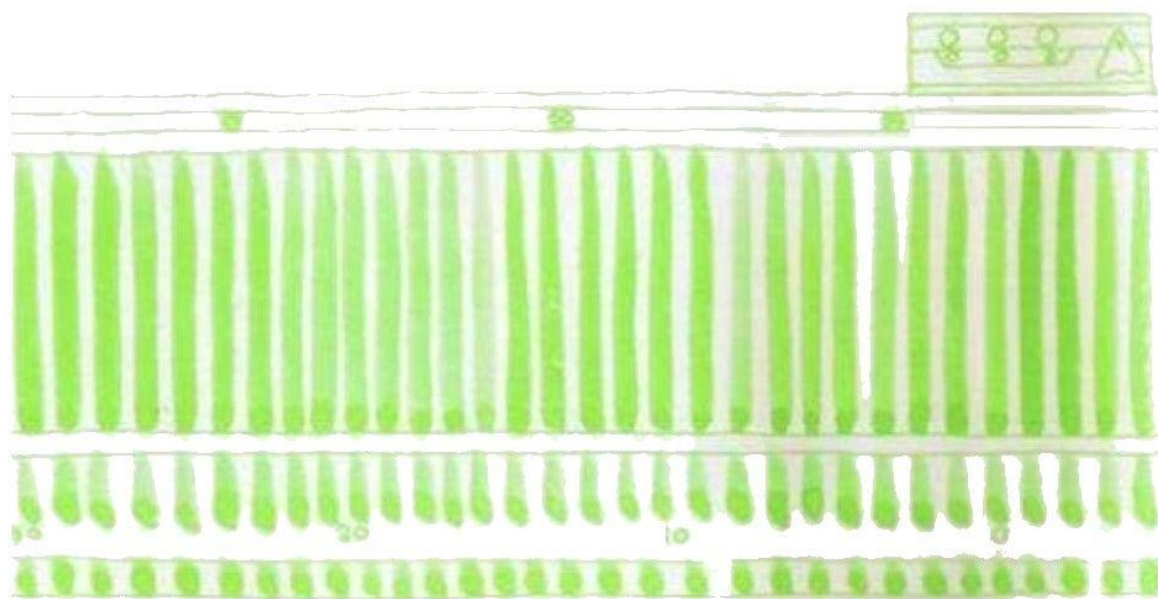
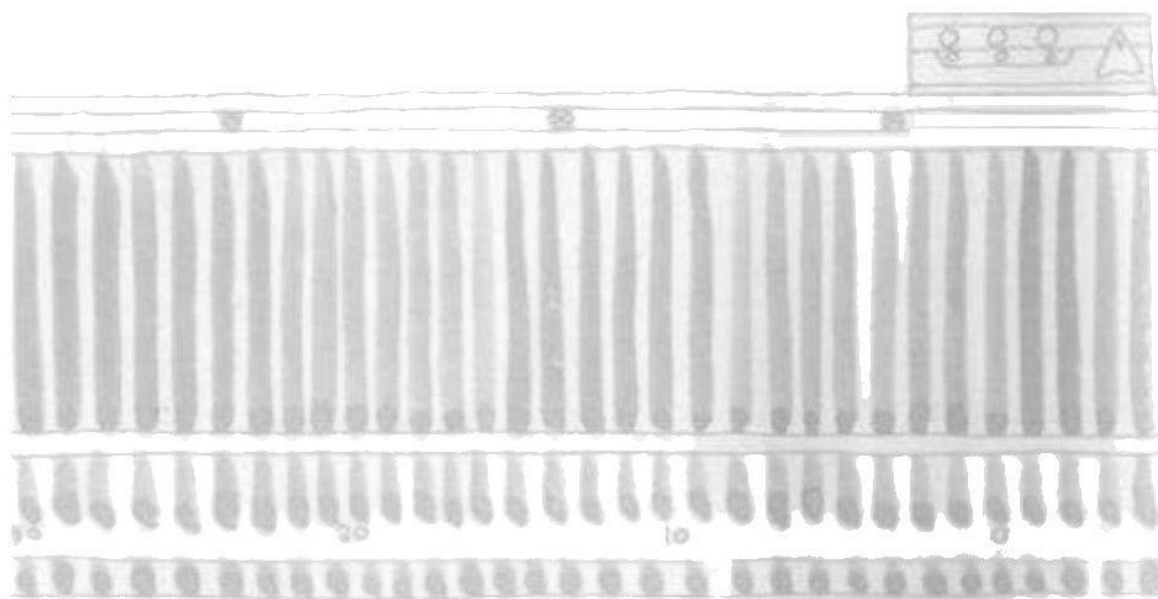


Fig. 99





APPENDIX (A)

HOW TO KNIT MULTI-COLOURED INTARSIA DESIGN

S-120 / S-140

PREFACE

The scope of your knitting machine has been extended with the newly developed carriage incorporating special Intarsia knitting cams. These enable you to knit Intarsia Designs in many colours without the need for a separate carriage.

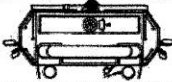

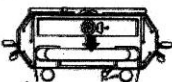

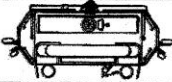



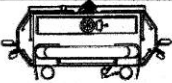
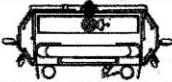


With Intarsia Design :

- (1) You can use as many colours as you require, in the same row of stocking stitch.
- (2) You can introduce - anywhere in your knitting - any design with any number of stitches of your choosing.
- (3) You can also introduce Fairisle to the knitting. To do this - you need to change the Shifting Cam Levers (SCLs) from "I" to "KNIT" position and return the Intarsia switch lever from "I" position to "N" position, at the point where you intend to introduce the Fairisle pattern.

When the Fairisle pattern is completed, return levers to previous positions and continue knitting with as many colours of yarn as is required.

In multi-coloured Intarsia Design - because one row of stocking stitch consists of two or more colours of yarn knitted in the same row - it is advisable to use yarns of similar weight and composition, to ensure a smooth professional finish to your garment.

**HOW THE CONTROL OF THE CARRIAGE LEVERS AND KNOBS OPERATE
THE NEEDLES WHEN PLACED IN DIFFERENT POSITIONS.**

NEEDLES IN POSITION	POSITION OF			CONTROL SETTINGS	NEEDLE POSITION	PURPOSE
	SHIFTING CAM LEVER	TUCK KNOB	RETURN CAM LEVER			
A	ANY	ANY	ANY		NIL	Needles not required for knitting
B	INTARSIA *1	UPWARD	2		PASS	Carriage passes over without operating needles. Not used for intarsia design knitting.
			1		PASS	Carriage passes over without operating needles. Not used for intarsia design knitting.
		DOWNWARD	2			Needles are returned from 'D' to 'B'. This setting is used before starting Intarsia knitting. See page 2 (d).
			1			Needles are returned from 'D' to 'B'. This setting is used before starting Intarsia knitting. See page 2 (d).
D	INTARSIA *1	UPWARD	2		KNIT	Needles knit and return to 'B' from 'D'. Not used for Intarsia design knitting.
			1		KNIT	Needles knit and return to 'B' from 'D'. Not used for Intarsia design knitting.
		DOWNWARD	2		KNIT	Used for Intarsia design knitting.
			1		KNIT	Used for Intarsia design knitting.
E	INTARSIA *1	UPWARD	2		HOLD	These needles hold stitches
			1			Needles are returned to 'B' from 'E'. Not used for Intarsia design knitting.
		DOWNWARD	2		HOLD	These needles hold stitches. Used for part knitting when other needles are in 'E' pos. See page 6.
			1			Needles are returned to 'D' from 'E'. Not used for Intarsia knitting.

NOTE: *1 Intarsia switch lever should always be set at "I" simultaneously when putting both Shifting Cam Levers into "Intarsia" position.

***2** Only needles in position "D" are used for Intarsia design knitting and the yarn should be unthreaded from the carriage feeder. See Page 2.

PREPARING THE CARRIAGE

- (a) With the carriage at right side of the machine, unthread the yarn from the carriage feeder as shown in Fig.1.

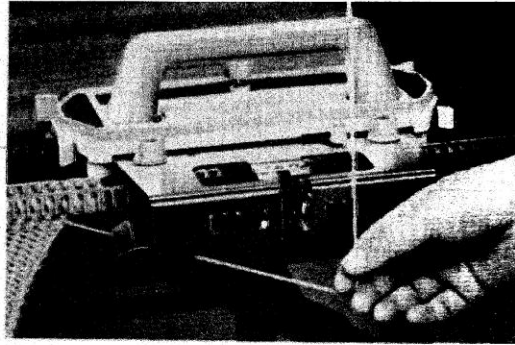


Fig.1

- (b) Set both shifting cam levers to "PASS" position and pull up the tuck knob. Then, transfer the carriage across the needles from right to left. (Fig.2)

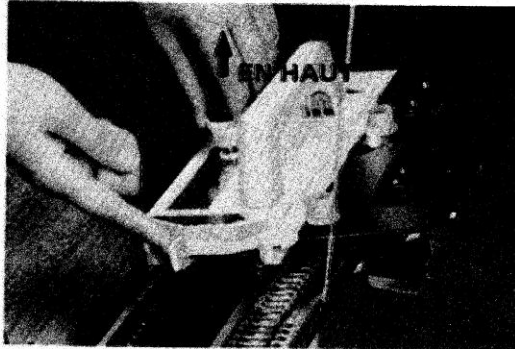


Fig.2

- (c) For Intarsia design knitting, push forward both shifting cam levers to "INTARSIA" position and move the Intarsia switch lever on the fabric presser arm from "N" position to "I" position. (Fig.3)

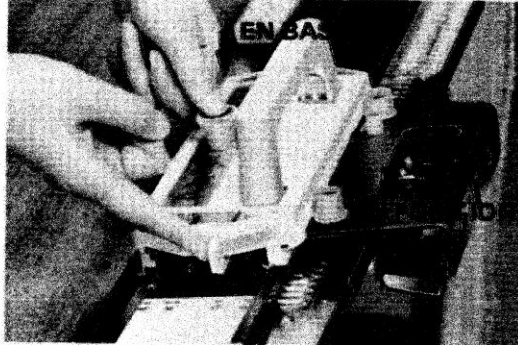
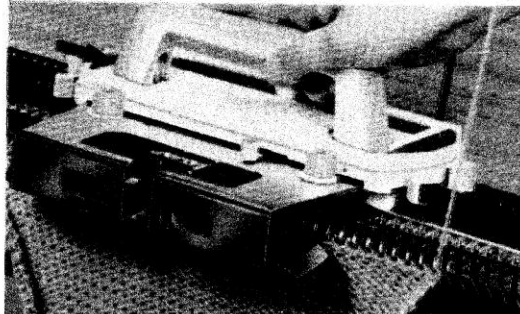


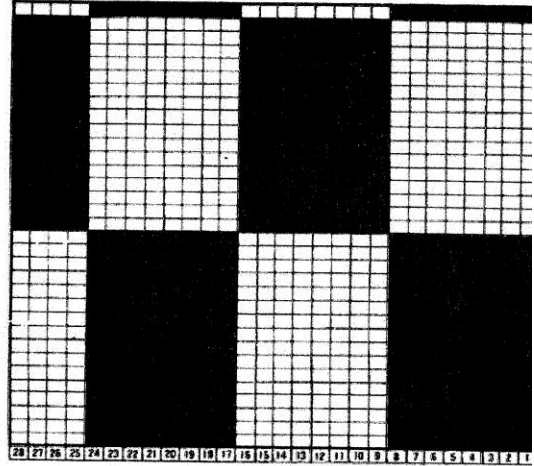
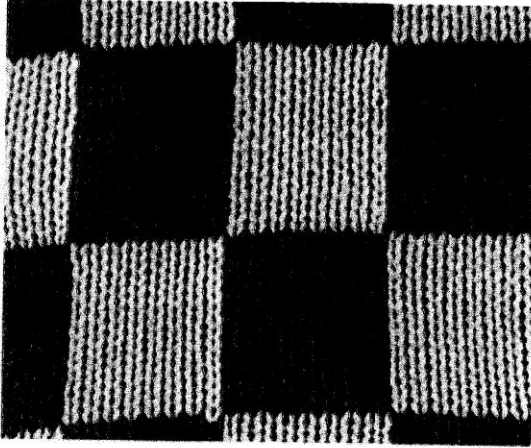
Fig.3

- (d) On the left side of the machine, slide the carriage into position and move it across the needles from left to right. (Fig.4)
It will be seen that the working needles have been brought forward into position (D) from position (B).



HOW TO KNIT INTARSIA PATTERNS

Check Pattern In Two Colours



- a) Ensuring that all the latches of the working needles are open, take the yarn from the right hand working needle and lay into the needle hooks starting with the right end needle to the 8th needle from the right end needle.

Hang down the ball of yarn between 8th and 9th needle and place it onto the floor. (Fig.5)

Lay in the contrasting colour from 9th needle to 16th needle and hang down the ball of contrasting colour between 16th needle and 17th needle.

With the other ball of the main colour yarn, lay the main colour yarn from 17th needle to 24th needle, and then with the other yarn of contrasting colour lay in from 25th needle to the 32nd needle and so on to the left end needle. (See Fig.5)

Take light hold of each strand of yarn with your left hand (do not pull down but just hold loosely.) (Fig.6)

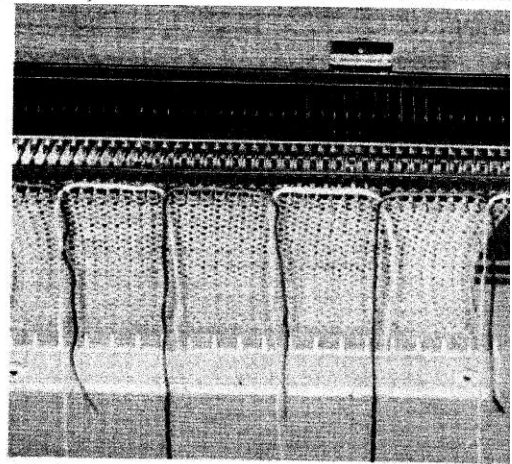


Fig.5

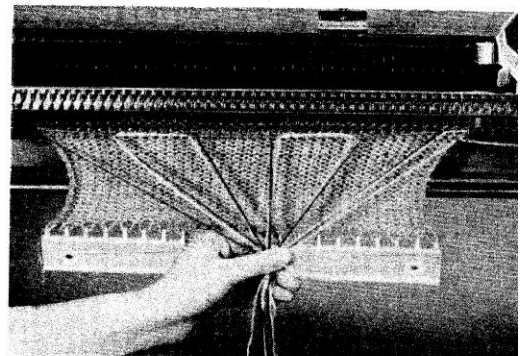


Fig.6

Move the carriage slowly across needles from right to left to knit a row.

Note 1 The same number of balls of yarn as the number of patterns to be introduced into a row should be prepared before knitting.

Note 2 In the first row knitted by the carriage, each starting point where the different colour yarn is introduced, e.g. between 8th and 9th needle, 16th and 17th needle and so on, it will be seen that a hole will occur in the fabric. After completing the fabric each loose end of yarn should be threaded into the next stitch manually to obtain a neat row.

(b) With the carriage on the left, in the same manner as described in (e) above, lay each strand of yarn in every 8 needles from left to right.

To do this, it should be remembered that each strand of yarn should be crossed over each other at the changeover point as shown in Figs.7A & 7B.

Failure to do this will cause a hole at each changeover point after knitting a row.

(c) Continue to knit until 16th row and then break each strand of yarn. Knit from 17th until 32nd row with the different combination of colours as shown in the pattern chart.

Note: Each loose end of yarn on the purl side of the fabric should be tied together with the next loose end after completing the knitting.

(d) Repeat and continue to knit.

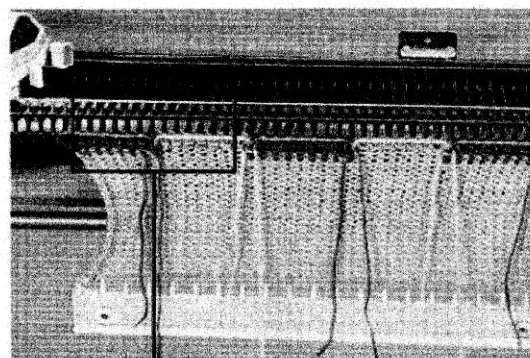


Fig.7A

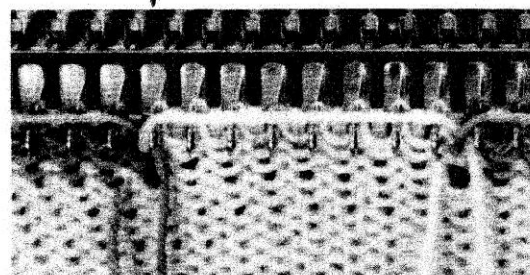
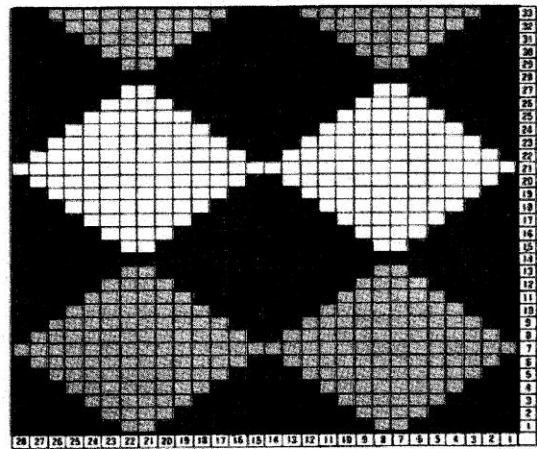
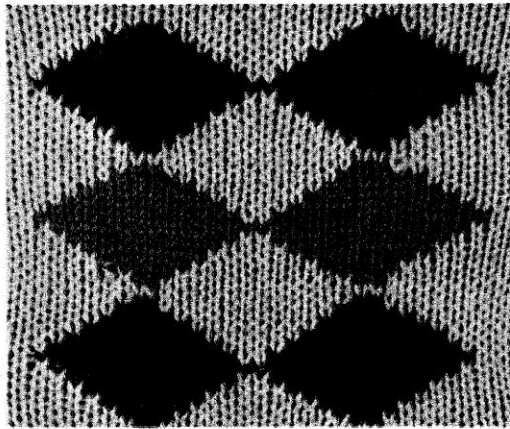


Fig.7B

(2) Diamond Pattern In Three Colours



Each point where the different colour is introduced should be moved row by row, but the pattern can be knitted in the same manner as described in the preceding paragraph

PART KNITTING

(1) Increasing Slope

- (a) At the opposite end to the carriage, hold the fabric firmly back against the sinker plate and at the same time bring forward into holding position (E) from position (D) the number of needles not required for the increase. Lay the yarn into the hooks of those needles in position (D). (Fig.8) Set both RCLs to "Position 2". (Fig.9).

Knit one row across all working needles in positions (D) and (E).

- (b) Pass the yarn under the end needle in position (E) nearest the needles in position (D), and lay the yarn into the needles in position (D), at the opposite end to the carriage. (Fig.9) Knit one row.

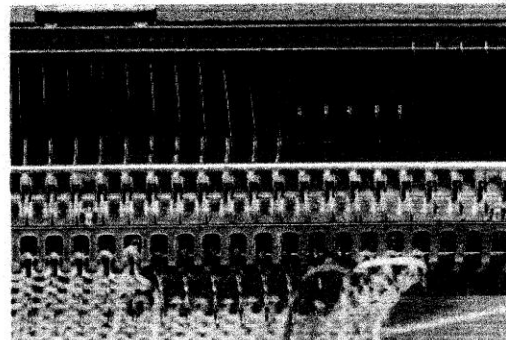


Fig.8

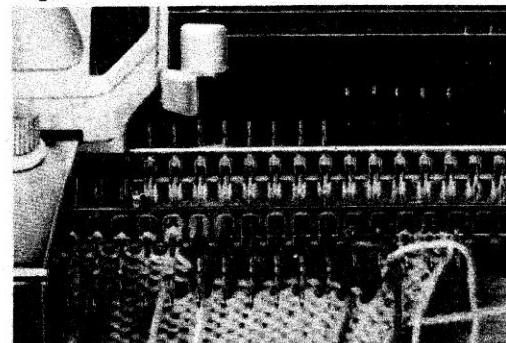


Fig.9

- (c) Push back from position (E) into position (D) the number of needles according to the degree of slope required. Lay the strands of yarn into the hooks of needles in position (D) and knit. (Figs. 10 & 11)

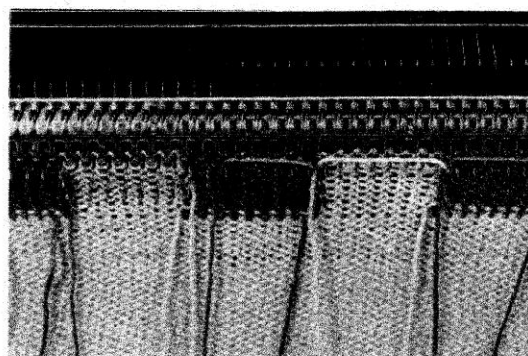


Fig.10

- (d) Repeat the above procedure until all the working needles are returned into position (D).

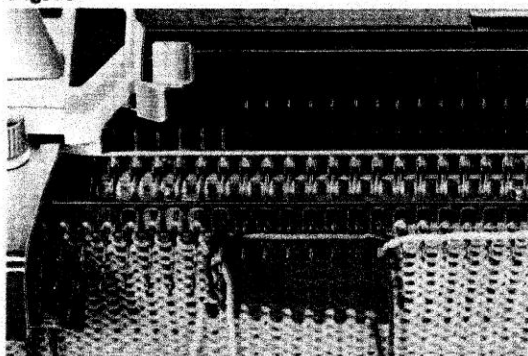


Fig.11

(2) Decreasing Slope

- (a) At the opposite end to the carriage, bring forward into position (E) from position (D) the number of needles not required for increase.

Lay the strands of yarn into the hooks of needles in position (D). (Fig.12) Push back both RCLs to "Position 2". Knit one row.

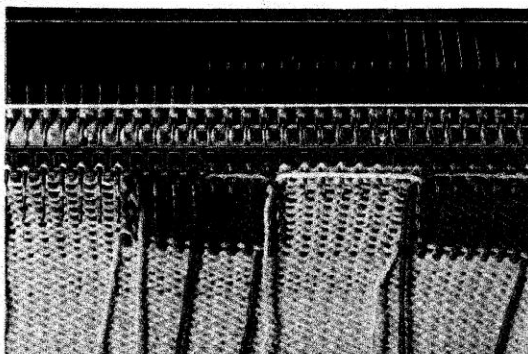


Fig.12

- (b) Pass the yarn under the end needle in position (E) nearest the needles in position (D) and lay in the strands of yarn at the opposite end to the carriage. (Fig.13) Knit one row.

- (c) Bring forward from position (D) into position (E) the required number of needles farthest from the carriage, and lay the strands of yarn into the hooks of needles in position (D). Knit one row.

Repeat the above procedure.

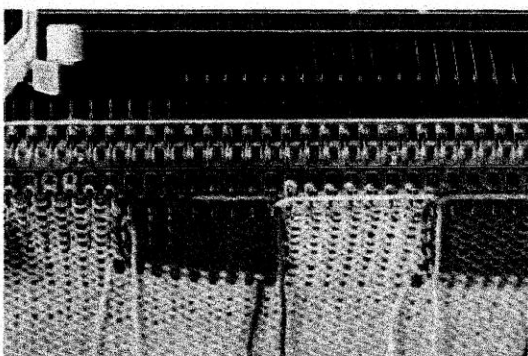
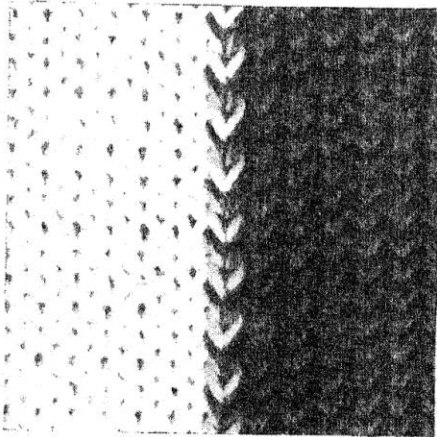


Fig.13

INTARSIA WITH A PLAITED STITCH :



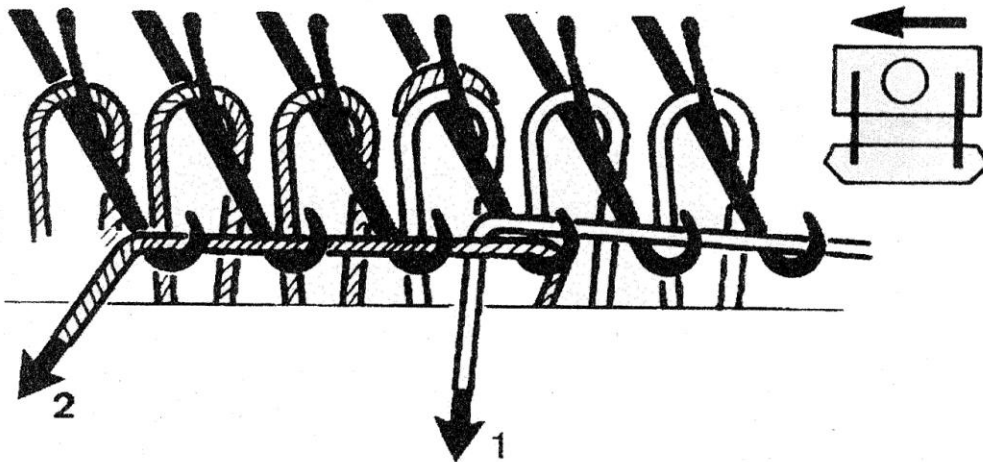
The join between each different coloured yarn is obtained by knitting both yarns on the same or common needle.

At the carriage side, lay the yarn over the needles which have to use the first colour, up to the common needle.

Lay the second yarn onto the following needles making sure to lay it over the common needle as well.

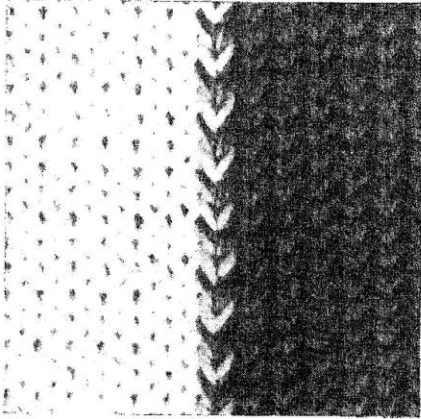
Move the Intarsia Carriage across.

Now repeat the same operation in the opposite direction (always lay the yarns across in the direction the carriage will be moved).



A

INTARSIA WITH STITCHES SIDE BY SIDE :

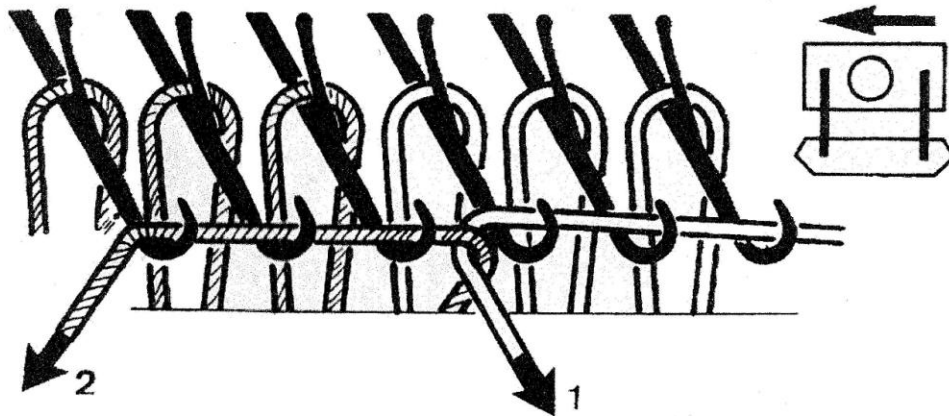


The link between each different colour is obtained by crossing both yarns between two needles.

From the carriage side, lay the yarn over the needles making sure to cross both yarns between the two needles for separation.

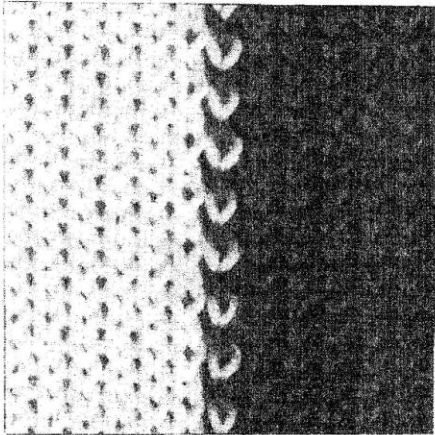
Take the Intarsia Carriage across.

Now repeat the same operation in the opposite direction (the yarns are always laid over the needles in the direction the carriage will be moved).



B

INTARSIA WITH A BIRDS EYE STITCH :



The Separation between each colour is obtained by alternately knitting over an extra needle.

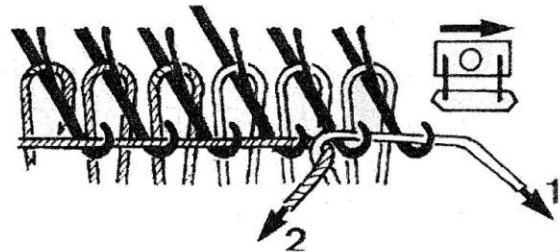
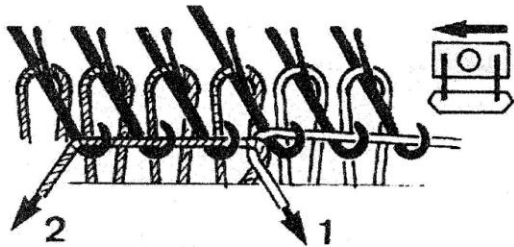
At the carriage side, lay the yarn over the needles which have to knit the first colour and then over an extra needle at the side of the separation.

Lay the second yarn onto the following needles making sure to cross both yarns between the two needles for separation.

Move the Intarsia Carriage across.

Repeat the same operation in the opposite direction (the yarns are always laid over the needles in the direction the carriage will be moved).

Note : This time the extra needle which was previously knitting in the first colour, will now knit the second colour.



C