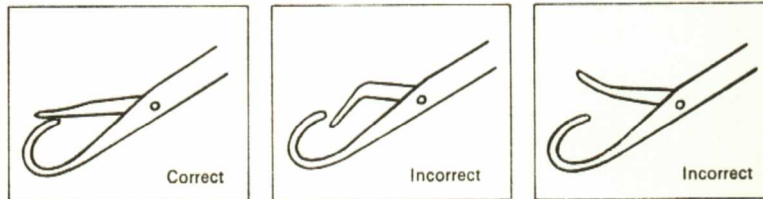


Lesson 1

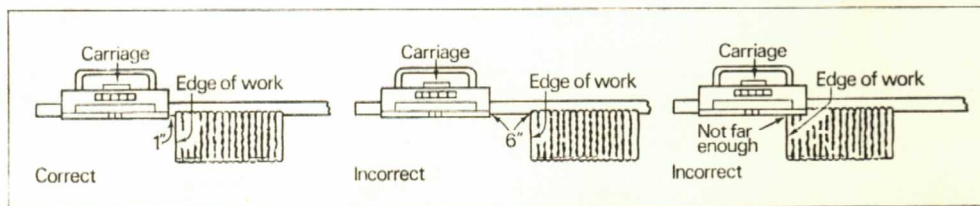


Brother home knitting tuition Lesson 1

- Question 1** Did the wool tug when you were knitting **Yes/No?**
- 2 Did you use a shop wound ball of wool **Yes/No?**
- 3 Do you have a wool winder **Yes/No?**
- 4 If no to question 3 did you make sure there was plenty of wool free to run through the machine before you started knitting **Yes/No?**
- 5 Did you use 4 ply wool **Yes/No?**
- 6 When you knitted a few rows: (a) was the knitting even **Yes/No?**
(b) did the end stitches stay on **Yes/No?**
- 7 If no was the wool flowing freely **Yes/No?**
- 8 Did you have the upper thread tension unit threaded correctly **Yes/No?**
- 9 Did you take the carriage far enough to knit the row **Yes/No?**
- 10 Did you take the carriage too far and make a loop which would cause the stitches to drop **Yes/No?**
- 11 Did you continually get loops at the end of the row **Yes/No?**
- 12 Were you taking the carriage too far **Yes/No?**
- 13 Is the upper thread tension unit threaded correctly **Yes/No?**
- 14 Was the knitting soft **Yes/No?**
- 15 If no did you use the tension suggested **Yes/No?**
- 16 Was the knitting soft but firm **Yes/No?**
- 17 If no was the tension too loose **Yes/No?**
- 18 Was the upper tension unit threaded correctly **Yes/No?**
- 19 Did the machine jump or stick at the edge of the knitting **Yes/No?**
- 20 If yes was the wool flowing freely **Yes/No?**
- 21 Was the wool free of knots or loops **Yes/No?**
- 22 Were the needles not in use right in A position **Yes/No?**
- 23 Were all the needles in use right in B position **Yes/No?**
- 24 Did you check whether the latch of a needle was bent after the machine jammed **Yes/No?**



- 25 Did the wool wrap round the weaving brushes **Yes/No?**
- 26 If yes did you check the weaving buttons were off before starting **Yes/No?**
- 27 Is the upper tension unit correctly threaded **Yes/No?**
- 28 Did you go too far past the end of the work **Yes/No?**



- 29 Did you leave the carriage at one side for some time and then when starting to knit forget to pull in the slack before you took the carriage across Yes/No?
- 30 Did you get a loop of wool instead of a row Yes/No?
- 31 If yes was the plain button fully depressed to release all the other buttons before allowing it to come out again Yes/No?
- 32 Or did you complete the row by taking the carriage 1" past the end of the work before knitting the next row Yes/No?

In either case press in both of the part buttons. Return the carriage to the opposite side. Press the plain button firmly. Continue knitting.

Now cast on, using this method. Knit a few rows. Take the cam box to the middle of the row going from right to left. Then stop as if you had jammed the machine. To unravel this imaginary jam first unfasten the white plastic screws holding the sinker plate assembly. Lift the sinker plate slightly upwards and pull it towards you at the same time. This will remove the sinker plate assembly without knocking any stitches off the needles. It is now possible to lift the handle of the carriage so that the carriage tilts back clear of the needles and the carriage can be moved back to the beginning of the row, i.e. to the right. Refit the sinker plate assembly. This is partly indicated in diagram 48. It is now possible to unravel the stitches which have not yet been knitted and to clear the stitches which have been knitted by pulling as indicated in the photograph and diagram 49 and 50. When the yarn has been unravelled back to the beginning of the row, check the threading up of the machine and pull in slack. Push the needles forward into 'E' position. When pushing needles to 'E' position keep hand against knitting below the needles to stop the knitting coming forward. Place the HCL onto No. 3 and then continue knitting.

- 33 Did you drop any stitches Yes/No?
- 34 If yes did they drop as you were unravelling Yes/No?
- 35 Were all the stitches to be unravelled in the hook of the needle Yes/No?
- 36 Were all the needles back far enough to hold the stitches firm before you started to unravel Yes/No?
- 37 Did you make sure the stitch from the row below fell into the hook before moving on to the next stitch Yes/No?
- 38 Did they drop as you started knitting Yes/No?
- 39 If yes did you push all the needles forward to E position before starting to knit Yes/No?
- 40 Did you have the carriage on the same side as the spare wool Yes/No?
- 41 Did you pull in the slack before starting to knit Yes/No?
- 42 Did you check for a knot or loop which may have caused the machine to jam Yes/No?
- 43 Did you check to see the needle latches were in good order Yes/No?

Following the diagrams and instructions on pages 20, 21, 22 and 23 you can now try two forms of simple hem. This is the first stitch required for a garment.

- 44 Did the first row after the hem prove difficult to knit Yes/No?
- 45 If yes did you pull in the slack before starting Yes/No?

To make the carriage easier to push on this row try the following method. After the hem is turned up bring forward the needles with work on them to E position but remember to keep your hand against the knitting below the needles to stop the work coming forward. Now pull in the slack. Make sure the HCL's are on 3. Take carriage slowly across and continue knitting.

The waste wool referred to in the instruction book is any length of a strongly contrasting yarn which is thrown away after the hem is turned. To thread the yarn below the yarn feeder merely break off the waste wool and rethread with the main colour yarn.

Brother home knitting tuition

How the course works

When you buy your machine the retailer sends us a card notifying us of your name and address. When we receive this card your name and address are entered in our records and you will start to receive the course.

We despatch lessons 1, 2 and 3 together with the wool for your first garment. This is packed in a magnificent binder in which you will be able to keep all your lessons for future reference. Please accept the wool for your first garment with our compliments, you will find the pattern when you reach lesson 3.

When you receive a lesson, whatever stage in the course you have reached, it is important that you proceed in the following way.

Step 1. Without trying to use the machine read the lesson and relate this to your instruction book.

Step 2. Start with the first step in lesson and work steadily through. If you have done step 1, you will find that most problems will solve themselves.

Step 3. Write any queries on the work in the lesson in block capitals on a sheet of paper.

Step 4. Write your name and address in block capitals on the sample card and on your sheet of questions. Then send these with your progress sheet to this office.

Step 5. If your samples do not look like the illustrations please attach the sample in question to the sample sheet before you send it in.

Step 6. If you have no query or incorrect samples then send your progress sheet only. Send it to this office in the envelope supplied.

**THE WHOLE SYSTEM OF THE POSTAL COURSE
REVOLVES AROUND THE PROGRESS SHEET SO
YOU MUST RETURN THIS PROGRESS SHEET EVERY
TIME YOU WRITE TO US— WE HAVE SUPPLIED AN
ENVELOPE FOR THIS PURPOSE!**

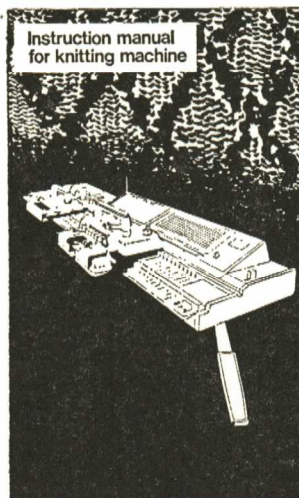
If it is not returned we cannot send you the next lesson. Any samples sent in without the sample card and progress sheet will be impossible to identify and will have to be thrown away.

The course for the sake of simplicity is split up in the following manner: Lessons 1–4 cover all the basic knitting and include the wool and pattern for first garment. This is seen in lesson 3. Lessons 5–7 cover more advanced knitting with patterning and special effects included and the beginnings of pattern conversion. Lessons 8–12 cover the making up of garments to specific measurements and garment design. Having completed lessons 1–4 you should be proficient with all basic knitting on the machine and should be ready to progress on to the intermediate stages of lessons 5–7. Only after you have completely understood the basic and intermediate sections should you progress on to the advanced section of lessons 8–12. There are two further extensions of the course for those who have purchased either the knitleader or the Ribbing Attachment. Lessons 13–18 cover the knitleader and all its' different facets and lessons 19–24 cover the Ribbing Attachment.

Brother home knitting tuition Lesson 1

Open the Instruction Book to pages 1 and 2 and read carefully.

(All numbered diagrams refer to diagrams in your instruction book.)
i.e. (Diag. 10 page 5) refers to diagram 10 on page 5 of your instruction book.



- 1 Open the fastening clamps.
- 2 Lift the lid as indicated in Diag. 2.
- 3 Remove the lid from the tool box as indicated in Diag. 3.
- 4 Take the two clamps from the tool box.
- 5 Fix the clamps as indicated in Diag. 5 and 6.

The machine can then be placed on a table or stand ready to have the remainder of the parts fitted. Careful study of pages 1 and 2 will soon help you to learn the different names of the parts.

1. Remove the CARRIAGE LOCK (Diag. 8). Provided all needles are in position 'A' the carriage should run smoothly from side to side. (for needle positions see diagram 22)

Now look at the underside of the lid where you will see the LACE CARRIAGE and SINKER PLATE ASSEMBLY held in by two spring loaded fastenings. By pressing the fastening down and removing it from under the catch these parts can easily be removed.

- Remove**
- 1 The LACE CARRIAGE (Diag. 9 page 5).
 - 2 The SINKER PLATE ASSEMBLY (Diag. 10 page 5).
 - 3 The UPPER TENSION UNIT.
 - 4 The COMBS.
 - 5 The EXTENSION RAILS, and place them on the table.
 - 6 Slot the UPPER TENSION UNIT into the machine (Diag. 17 page 6).
 - 7 Fit the SINKER PLATE ASSEMBLY (Diag. 11 page 5).
 - 8 Fit the EXTENSION RAILS. (This is not vital at this stage but worth trying if everything else is going smoothly). See Diag. 146 page 49.
 - 9 Place the LACE CARRIAGE on the EXTENSION RAILS and fit the handles to both LACE CARRIAGE AND MAIN CARRIAGE (Diag. 12 page 5).
 - 10 Fit ROW COUNTER onto the two steel buttons in front of the accessory tray.
 - 11 Fit SET LEVER (Diag. 31 page 12).
 - 12 Following diagrams 14, 15, 16 and 17 assemble the UPPER THREAD TENSION UNIT to the working position. YOU SHOULD BE READY TO START KNITTING NOW.
Before starting read pages 8 and 9 very carefully.
N.B. For repacking see instructions on pages 61 – 64.

It is very important when first using the machine to get the feel of its operation at its best. 4 ply and 3 ply yarns are best for practising because you will be able to feel any tightness or pulling which is caused by knots or looping in the wool. If you use a double knitting wool you will find that the machine is harder to push and you will not realise when the machine is tugging due to the thickness of the wool or when it is tugging due to some fault of the threading or in the yarn. A wool winder is not essential but is very useful if you cannot buy wool where the yarn comes from the centre of the ball. If it has to be taken from the outside of the ball there is a tendency for the ball to jump up and down and this will cause unevenness in the knitting.

On page 8 read carefully the two articles, one on wool tension and the other on TENSION DIAL. It is important to remember these paragraphs particularly the one concerning the TENSION DIAL as for hand knitting the larger the number needle, the smaller the size stitch, whereas with a machine tension dial the smallest number is the smallest stitch and the largest number is the largest stitch.

Approximate Tension Guide

2 ply	Tension 2 – Tension 4
3 ply	Tension 4 – Tension 6
4 ply	Tension 5 – Tension 8
D.K.	Tension 7 – Tension 10

On page 9 are some pictures or diagrams of the correct and incorrect settings for needles when normal knitting is being carried out.

Page 10 states that when needles are in position B most machines will make a slight click when the row is completed. However this is not always to be heard when the machine is set for patterns or well oiled.

Read the section on the carriage buttons very carefully to familiarise yourself with the names as this will save you turning back when they are mentioned in future lessons.

(Figure 36 shows two yarns threaded but only use the left hand one for the moment). Following page 14 thread up the TENSION UNIT in the manner indicated leaving the ball on the table and continue with the cast on described on pages 15, 16 and 17. Cast on over 50 needles (25 either side of '0') Continue at a steady pace.

Try to move the CARRIAGE smoothly as this will enable you to get an even pressure which will be less tiring than jerking the machine. To remove work take the wool out of the YARN FEEDER and take the CARRIAGE across and the work will drop off. Try this method for casting on many times until you can complete it without reference to these instructions.

Brother home knitting tuition Lesson 1

Knitting Uneven?

Lines in your work?

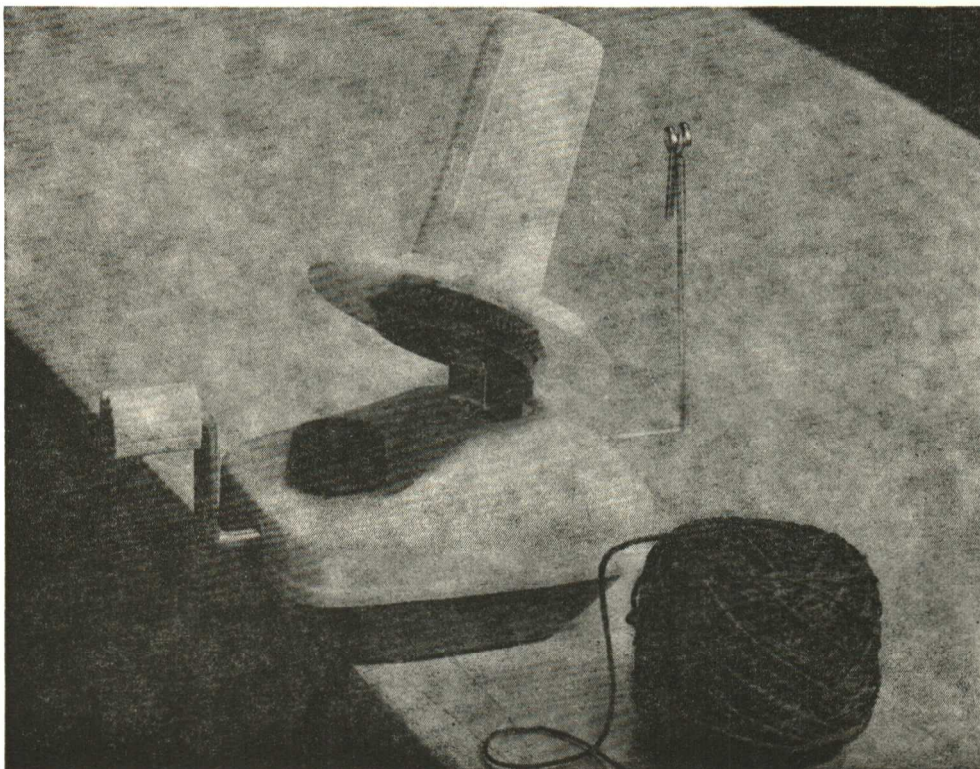
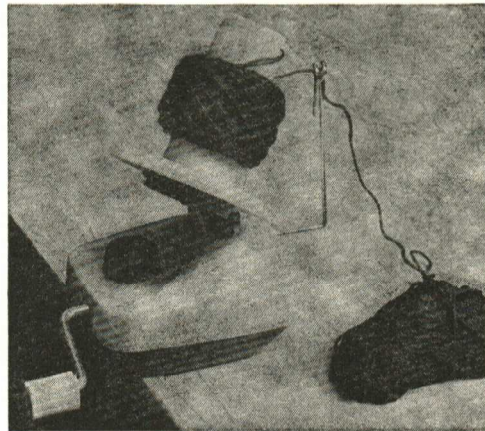
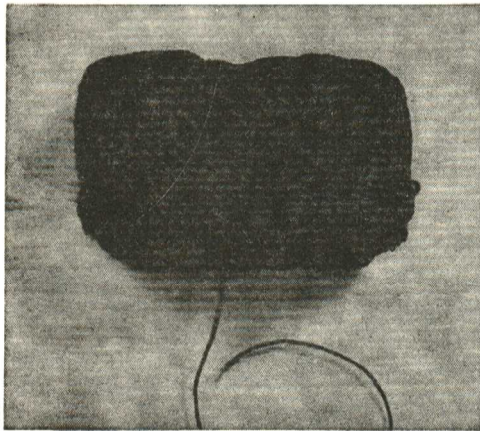
Stitches dropping at the edge?

Machine stiff?

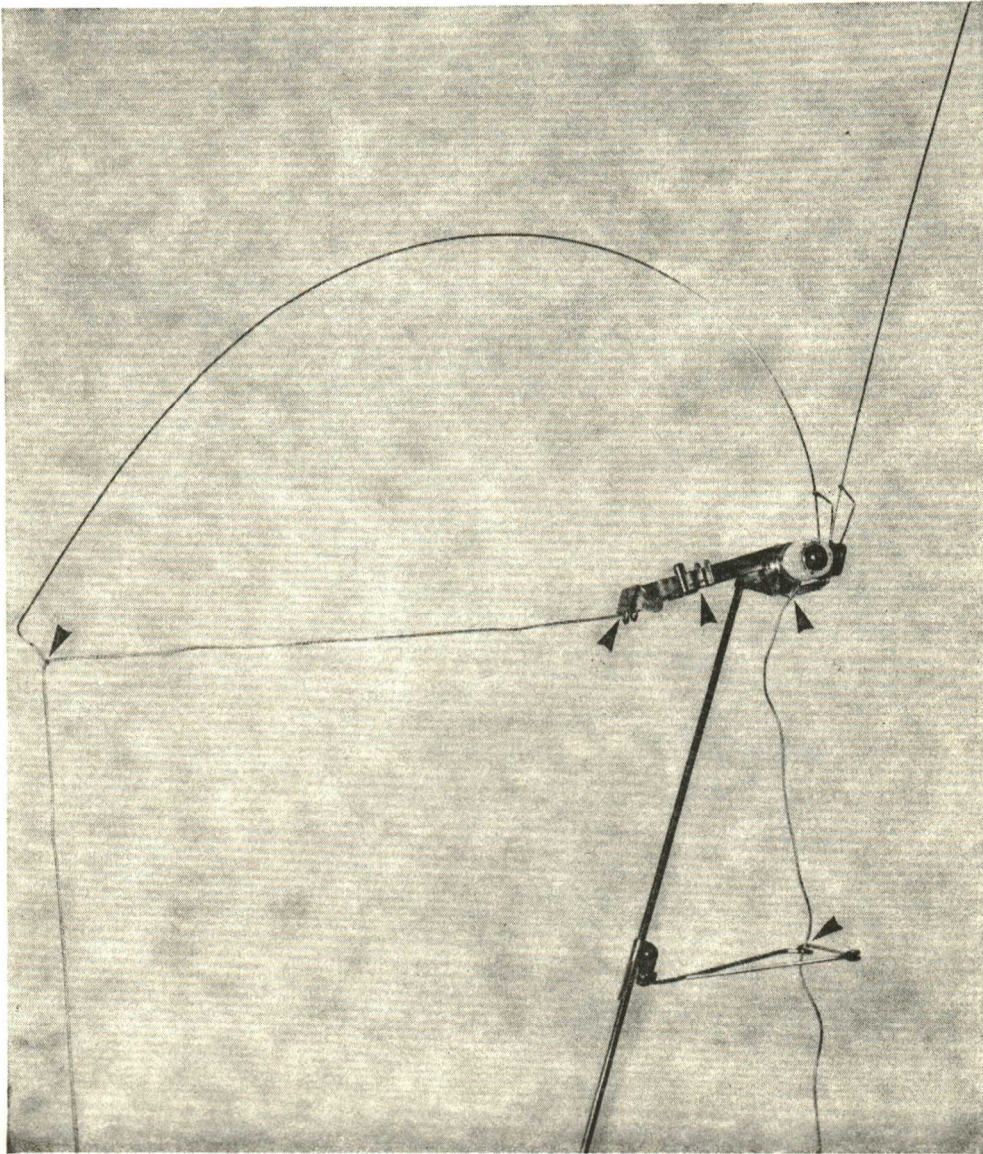
Machine jamming?

All these disagreeable snags can occur if the wool is tugging.

With our wool winder, wool feeds smoothly from the centre of the ball so the ball stays still on the table right to the end of the ounce.



Great attention must be paid to the path of the wool particularly at the points arrowed in the diagram.



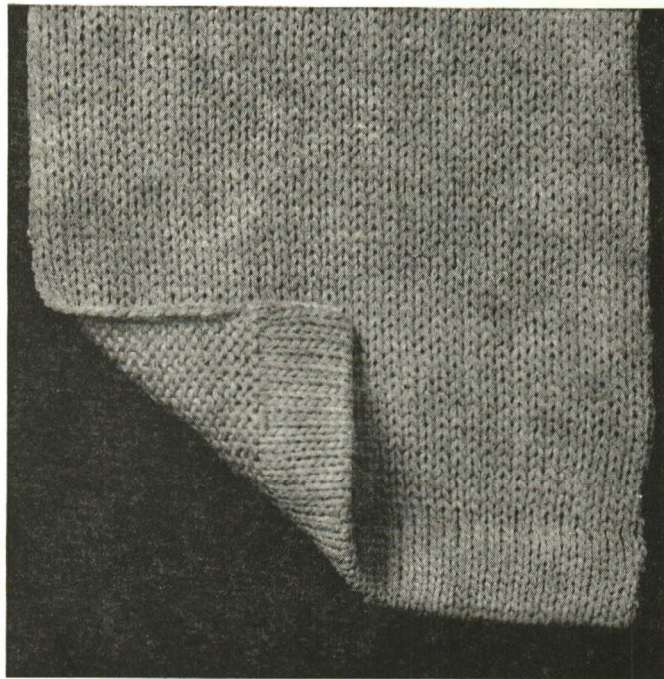
Brother home knitting tuition Lesson 1

Samples

If your samples look like the photographs and you have no queries on them please do not send them to us. If you have a query on the sample please fasten it to a query sheet and print your query in block capitals. If this is sent to us we will solve the problem for you.



2 x 1 Mock Rib



Simple hem

Name.....DONNA ERICKSON,c/o M. Holzer.....BLOCK CAPITALS PLEASE
Address.....522 4th Ave. W.,
Washburn, Wisconsin 54891



Brother home knitting tuition Lesson 2

On page 24 there is an automatic method for casting on which is a quick way to start a sample. This is occasionally useful and should be practised. Cast on 20 stitches using this method. Please try the method on page 25, if when using this method you cast on too tightly the first row will be very hard to push. (Bring forward all needles to 'E' position for the first 2-3 rows and have the weaving buttons on 'T').

Cast on using an open edge method with a contrast colour and knit 10 rows. Change to main colour and knit 20 rows following the instructions on page 26, use the lace carriage to get a row of holes. Knit a further 20 rows and turn up the hem along the line where the contrast colour wool joins the main wool. Unravel the waste. Knit 20 rows. Now practice dropping a stitch and picking it up as in Diagrams 65-68 also try picking up some stitches with the latch tool going through from the front. This will form a purl stitch and can be used to obtain some attractive stitches. (See sample sheet (A) for picot hem and illustration of stitch picked up).

Use of Transfer Tool

Cast on 20 stitches. Knit 20 rows. Turn to Page 27 in instruction book. This is one of the most important parts of machine knitting. Practise this as much as possible, it will enable you to use your machine far more quickly. Follow Diagrams 69-72 on Page 27.

Practice

- 1 Transfer the stitch on the second needle onto the first.
- 2 Transfer the stitch on the fourth onto the third.
- 3 Transfer the stitch on the sixth onto the fifth.
- 4 and so on to the end of the knitting.
- 5 Bring all the empty needles to B position.
- 6 Knit 10 rows.

You should now have a row of holes. This should have given you plenty of practise on the use of the transfer tool. (See sample sheet (B) for row of holes).

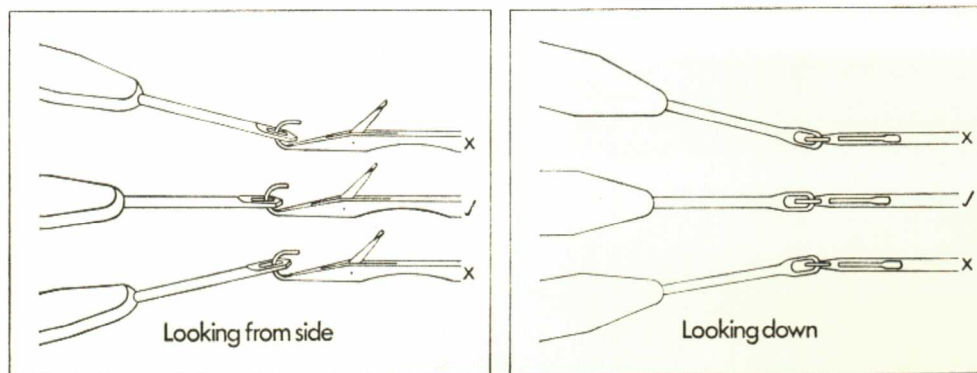
- A
- | | | | | | | |
|--|----|----|----|----|----|---------|
| Did the wool split | .. | .. | .. | .. | .. | Yes/No? |
| 1 If yes, did you keep the tool in line with the needles | .. | .. | .. | .. | .. | Yes/No? |

It is important that the needle shaft is in line with the transfer tool throughout the operation.

See diagrams below for correct method ✓ = right ✗ = wrong

- B
- | | | | | | | |
|---|----|----|----|----|----|---------|
| Did you drop a stitch | .. | .. | .. | .. | .. | Yes/No? |
| 2 Did you make sure the stitch was on the next needle before removing the Transfer tool | .. | .. | .. | .. | .. | Yes/No? |

Diagrams of needles in line with Transfer tools correct and incorrect as photos.



Increasing

- 1 Using method A (One stitch at either edge). Increase 1 stitch at the beginning of the next 20 rows.
See sample sheet (C)
- 2 Using method B (fully-fashioned method) (Page 28). Increase 1 stitch at beginning of next 10 rows.
See sample sheet (D)
- 3 **Increasing several stitches at either edge.** (Page 28)
See sample sheet (I)

A With CARRIAGE at right increase 5 stitches at right.

B Knit 5 rows slowly. At this stage if you wind the wool too tightly the CARRIAGE will be hard to move. If this is the case bring forward the needles onto which you have just wound stitches. Keep the stitches against the gate pegs and push the needles forward to 'E' POSITION. With the HCL's on 3 knit 1 row. Once more push the same needles forward and knit another row. This will make the carriage easier to push. You can then carry on normally. **N.B.** This is not always necessary, it depends on how tightly you cast on the increased stitches.

C CARRIAGE at left increase 5 stitches at left.

D Knit 5 rows slowly.

Increasing one stitch in centre of row (Page 28)

Increase 1 stitch twelve stitches in from the left.

Increase 1 stitch twelve stitches in from the right.

Questions

- 1 Did the stitches pick up properly Yes/No?
- 2 Did you increase on the side of the carriage Yes/No?
- 3 When you increased more than 1 at a time was the carriage hard to push Yes/No?
- 4 Did you bring the increased needles to E position for the first 2 or 3 rows Yes/No?

Transferring to hand knitting needles (Page 29)

- 1 Follow Diagrams on Page 29.
 - (a) Take all stitches off machine into stitch holder or hand knitting needle.
 - (b) Replace on machine with the right side of the work facing you.
 - (c) Knit 10 rows.
 - (d) Take all stitches off machine onto stitch holder or hand knitting needle.
 - (e) Replace on machine reversing stitches once again.

Reversing the knitting See sample sheet (E)

- 1 Did you split the wool Yes/No?
- 2 Did you concentrate on keeping the Transfer tool in line Yes/No?
- 3 Did you hold the Transfer tool too tightly or press too hard on the needles Yes/No?

Brother home knitting tuition Lesson 2

Decreasing Stitches (Page 30) See sample sheet (F)

- 1 Following simple method (A) decrease one stitch at the beginning of the next 20 rows.
- 2 Following method (B) fully fashioned decreasing, decrease 1 stitch at beginning of next 10 rows.
- 3 **Decreasing 1 stitch in the centre of the row** (Page 30)
 - (i) Decrease one stitch twelve stitches in from the left.
 - (ii) Decrease one stitch twelve stitches in from the right.
- 4 **Decreasing several stitches in a row.** See sample sheet (G)
 - (i) Take stitches onto hand knitting needles starting at right.
 - (ii) Starting at left side replace, but put two stitches on every fourth needle. Knit 10 rows.
- 5 **Casting off.**

Using method (A) cast off loosely across the work, Diag. 85-88.
Also try the method on page 31 which starts in the third paragraph.

Decreasing or Casting Off See sample sheet (H)

- 1 Did the stitches sometimes catch at the edge after you had taken the carriage across **Yes/No?**
 - 2 Did you pull the work down at the edge to make sure the stitches knitted off **Yes/No?**
 - 3 Are you working with the tension too tight **Yes/No?**
 - 4 When you decreased more than 1 at a time did you get a tight edge .. **Yes/No?**
 - 5 Did you pull the needle back far enough to pull the wool through when you knitted the two together **Yes/No?**
- (Not far enough gives a tight edge and too far gives a loose edge)**

PRACTICE MAKES PERFECT

Buttonholes

Cast on 20 stitches. Knit 20 rows.

Small

- 1 Transfer the 10th stitch to the 11th.
- 2 Knit 10 rows.
- 3 Repeat.

Medium and Large

The methods on Pages 32 and 33 can be used but the method preferred by a large number of knitters is set out below.

- 1 Bring forward the number of needles required for the buttonholes to E position (i.e. on sample bring forward centre 5 needles).
- 2 Place a contrast colour in the hook of the latches of those needles.
- 3 Pull those needles back by hand to B position so that the stitch on the needle knits off into the contrast colour yarn.
- 4 Leave the needles in B position and continue knitting.

When the garment is complete the contrast yarn can be removed to leave a hole which will have to be finished off by hand. Try four or five buttonholes with 10 rows between each. Complete two by removing the wool and sewing by hand, leave the remainder. Cast off loosely using method you prefer.

	Cause	Treatment
Carriage Jams.	1 Wool not feeding in correctly.	1 Check the path of the wool from the ball through the yarn tension unit.
	2 Needles bent or needle latches bent.	2 Replace bent needles.
	3 Needle butts were not all in a straight line in one of the 5 positions. (A,B,C, etc.)	3 Reset needles.
	4 Insufficient lubrication.	4 Oil sides of cams, nylon runners beneath carriage, and needle butts.
	5 Knot in wool caught in yarn feeder.	5 Ease knot through yarn feeder using transfer tool.
Wool breaking or splitting.	1 Poor quality wool.	1 Use better quality, or wax the wool when winding or knitting.
	2 Knots in wool becoming untied.	2 Use reef knot, or weavers knot.
	3 Tension too small.	3 Set large tension, on carriage tension dial.
Uneven knitting.	1 Wool not feeding in properly.	1 Check path of wool and check if ball is wound too tight.
	2 Sinker plate unit loose.	2 Loosen the thumb screws and push the unit all the way back towards carriage until it locks in. Tighten both thumb screws.
	3 Wool uneven or knotted.	3 Check wool quality.
Tight stitches near the edge.	1 Taking carriage too far away from edge of knitting.	1 Stop carriage movement immediately after hearing "Click" at end of row.
	2 Tension on the yarn tension unit too tight.	2 Loosen by turning the dial towards the (-) sign.
	3 Yarn wound too tight.	3 Check whether yarn comes up from ball freely; if not, wind the yarn again.
Stitches dropped at side.	1 Taking carriage too far.	1 Stop carriage movement immediately after hearing "Click" at end of row.
	2 Tension too tight (or too loose).	2 Set correct tension for yarn used.
	3 Faulty needle.	3 Replace needle.
Stitches dropped in centre.	1 Latch brushes worn.	1 Replace brushes.
	2 Faulty needle.	2 Replace needles.

Brother home knitting tuition Lesson 2

	Cause	Treatment
In knitting lace pattern, the stitches keep hooking on the gate pegs. Stitches are not uniform.	<ol style="list-style-type: none">1 Gate pegs are bent outward too far.2 Gate pegs bent sideways.	<ol style="list-style-type: none">1 Straighten the bent peg.2 Straighten the bent peg.
L carriage is jammed while sliding.	<ol style="list-style-type: none">1 Tension dial is not set at the proper position.2 L carriage is moved without fitting securely into the needle bed.3 The needles are not in a line.	<ol style="list-style-type: none">1 Adjust the position of the tension dial.2 Press the L carriage softly as you operate it.3 Reset the needles.
In lace pattern knitting, stitches are sometimes hooked on the gate pegs.	<ol style="list-style-type: none">1 Tension dial is not set at the proper position.2 The L carriage speed is too fast.3 Gate pegs are bent.	<ol style="list-style-type: none">1 Adjust the position of the tension dial.2 Operate the L carriage slowly.3 Repair the gate pegs.
Stitches are sometimes hooked on the gate pegs. Stitches are sometimes dropped when the L carriage is moved from left to right or right to left.	<ol style="list-style-type: none">1 Latch of the needle is not working properly.2 Gate pegs are bent.	<ol style="list-style-type: none">1 Replace the needle.2 Repair the gate pegs.
Marks appear on the work because the machine is	<ol style="list-style-type: none">1 Dusty.2 Has not been properly cleaned after last being used.3 Is over oiled.4 The wool has been allowed to trail on the floor and has got dirty in places.	<ol style="list-style-type: none">1 Clean machine.2 Clean all fluff off machine.3 Wipe off surplus.4 Keep wool on table or in container.

Brother home knitting tuition Lesson 2

Samples

If your samples look like the photographs and you have no queries on them please do not send them to us. If you have a query on the sample please fasten it to a query sheet and print your query in block capitals. If this is sent to us we will solve the problem for you.

A Picot Hem.

B Use of transfer tool (Row of holes).

C Increasing Stitches Method A.

D Increasing Stitches Method B.

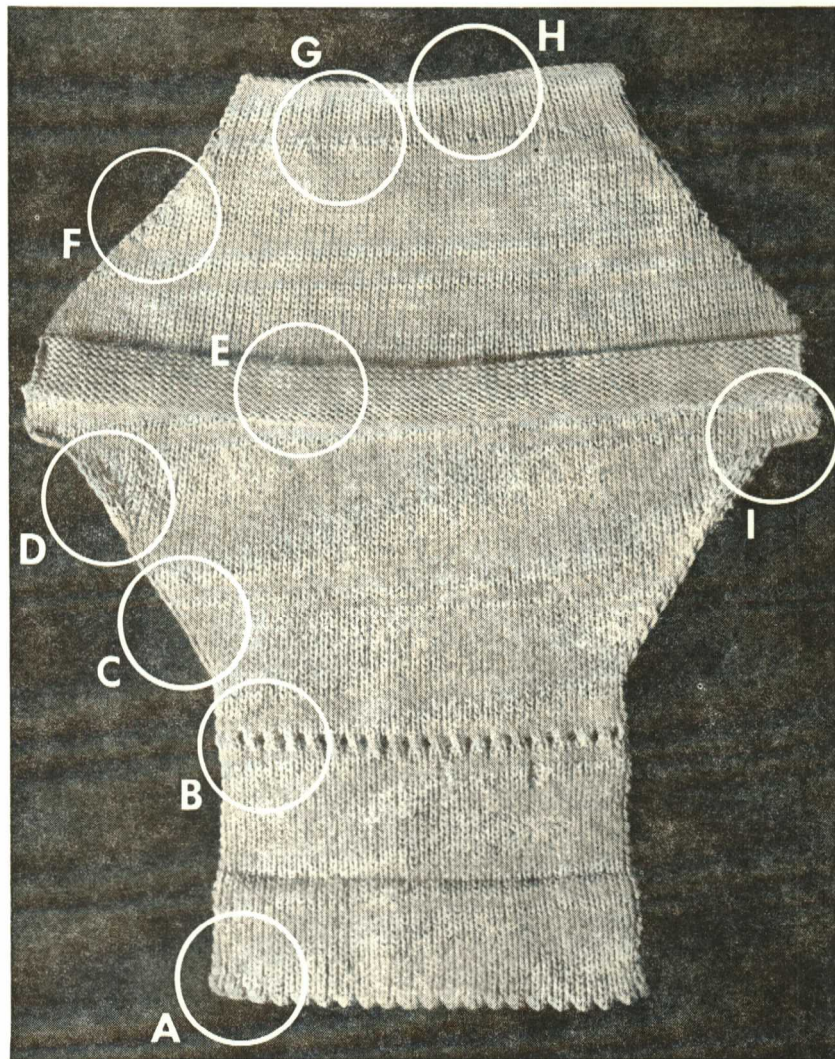
E Reversing the knitting.

F Decreasing stitches, method A.

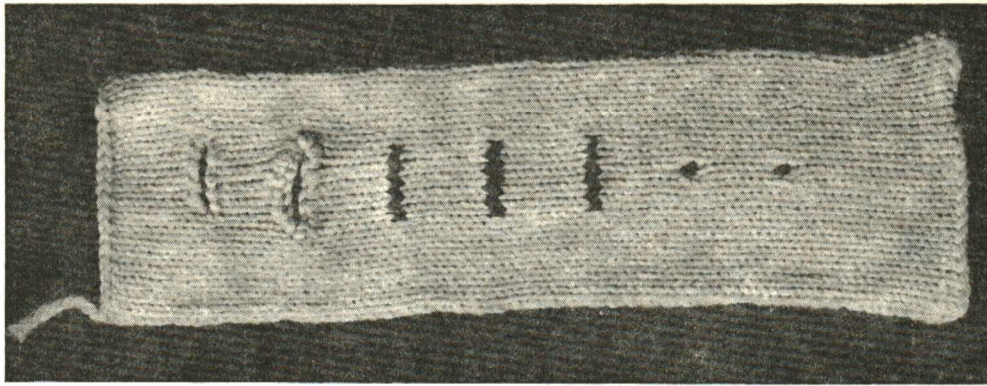
G Decreasing several stitches in the row.

H Decreasing or casting off.

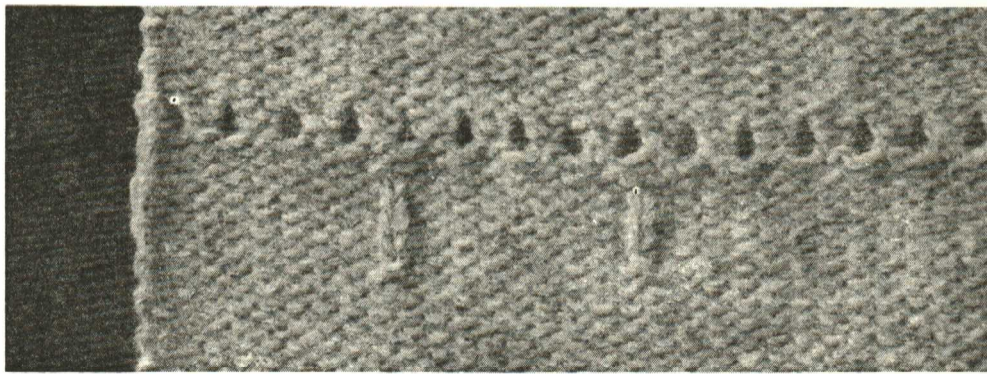
I Increasing several stitches on either edge.



Name..... DONNA ERICKSON, c/o M. HOLZERBLOCK CAPITALS PLEASE
Address 522 4th Ave. W.,
..... WASHBURN, WISCONSIN 54891

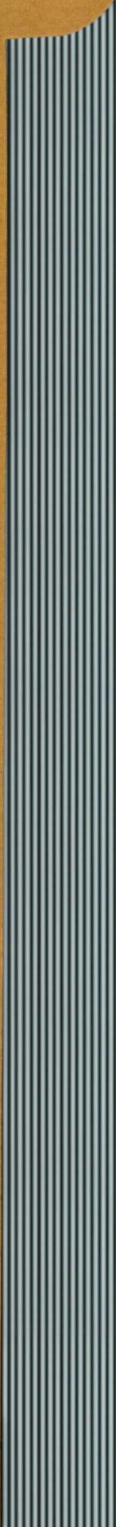


Buttonholes



Showing reverse of row of holes and stitch picked up with latch tool going through from front.





Brother home knitting tuition Lesson 3

You are now ready to knit your first garment and for this we have enclosed 7 ounces of wool and a pattern of a girls cardigan.

N.B. If you have knitted the garment to your own satisfaction please tick the box below.

If you have queries please send the garment for comment and we will return it with our advice.

Please accept the wool for this garment with our compliments and congratulations on mastering the basic use of your knitting machine.

Girls Cardigan

Materials

7 ozs. 4-ply wool; 5 buttons.

Measurements

To fit bust size 24 ins.

Finished measurement 26 ins.

Length at back neck 15½ ins.

Sleeve seam 11 ins.

Tension

14 sts. and 20½ rows to 2 ins. after pressing.

Abbreviations

Sts., stitches; dec., decrease; rep., repeat; foll., following; alt., alternate; T., tension; 000, return row counter to 000.

Notes

Fully fashioning at raglan edges is worked by transferring 4th st. onto 5th needle and moving end 3 sts. 1 needle in. Fully fashioning at neck edge is worked by transferring 3rd st. onto 4th needle and moving end 2 sts. 1 needle in.

Back

Cast on 93 sts. for 1 x 1 rib. * Knit 2 circular rows. T3/3. Knit 14 rows. Transfer sts. to main bed for st.-st. (**Single machines**, push 93 sts. to B position. ** Take every alternative needle back to A position. Using contrast colour cast on over remaining sts. Knit a few rows. Change to main wool. T.5. Knit 29 rows. Make a hem and knit the row **. 000. T7. Knit 76 rows. This will give a length of 9 ins. from cast-on edge. Adjust length here if required *.

Shape Raglan Armholes

000. Cast off 2 sts. at beg. of next 2 rows. Knit 1 row. Dec. 1 st. (see Notes) at both ends of next and foll. 3rd row and then every foll. alt. row until 29 sts. remain. Knit 1 row. Knit 1 loose row. Cast off using chain method.

Right Front

Cast on 43 sts. for 1 x 1 rib. Knit as back from * to *. (**Single machines**, Push 43 needles to B position. Knit as Back from ** to *.)

Shape Raglan Armholes

000. Cast off 2 sts. Knit 2 rows. Dec. 1 st. (see Notes) at raglan edge on next row. Knit 2 rows. Dec. 1 st. at raglan edge on next and every foll. alt. rows at the same time dec. 1 st. at neck edge (see Notes) on next and every foll. 6th row until 6 sts. remain. Dec. 1 st. at raglan edge on foll. 2 alt. rows only then dec. 1 st. at neck edge (not fully fashioning) until 2 sts. remain. Cast off.

Left Front

Knit as Right Front reversing all shapings.

Sleeves (two alike)

Cast on 47 sts. for 1 x 1 rib. Knit 2 circular rows.

T3/3. Knit 14 rows. Transfer sts. to main bed for st.-st. (**Single machines**, Push 47 needles to B position. Knit as Back from ** to **. 000. T7. Knit 8 rows. Inc. 1 st. at both ends of next and every foll. 10th row until there are 67 sts. Knit straight until 98 rows have been worked. This will give a sleeve seam of 11 ins. Adjust length here if required.

Shape Raglan Top

000. Cast off 2 sts. at beg. of next 2 rows. Knit 1 row. Dec. 1 st. (see Notes) at both ends of next and every foll. 3rd row 8 times in all and then every alt. row until 9 sts. remain. Knit 1 row. Cast off.

Front Band

Mark right front for 5 buttonholes, the first ¼ inch above cast-on edge and the last at beg. of next shaping. Space remainder evenly between. Cast on 13 sts. for 1 x 1 rib. Knit 2 circular rows. T3/3. Make buttonholes to match marker over centre 5 sts. (**Single machines**, Cast on 17 sts. by hand. T.6. Knit to match markers making buttonholes over sts. 4, 5 and 6 inclusive from each end.) Knit until long enough to go up fronts, across sleeve tops and back neck, stretching to fit. Cast off.

To Make Up

Pin out and press with a hot iron over a damp cloth. Join side, sleeve and raglan seams. Sew front band in position, neaten buttonholes and sew on buttons. Press seams.



Page 34. Cast on 40 stitches and knit 10 rows. Stop with CARRIAGE on right and push the 20 needles furthest from the carriage to 'E' POSITION put HCL to 2. Knit six rows, break off yarn and bring forward remaining 20 needles to 'E' POSITION. Take carriage to left and re-thread wool feed, set HCL to 1, push 20 needles nearest to carriage to POSITION DI, knit 6 rows. Set HCL to 3, continue knitting on all needles. You have now made a vertical buttonhole. Knit 10 rows and repeat twice more for practice.

Now on the same sample make a pocket as indicated on Page 34 over the centre 15 stitches.

Following Page 35 cast on 40 stitches and knit 20 rows. Divide for a V-neck. Decrease at the neck edge on the side you are working until all stitches are decreased and then repeat for the other side of the V.

'V' Neck (Alternative Method)

- 1 Bring the 20 stitches at left of "0" (centre) to position "E".
- 2 RC. 000. HCL to position 1.
(Position 3 knits every position except "A" (non-working).
Position 1 knits every position except "A" & "E" (holding).
Position 2 knits ONLY "B" position and if any stitches are further forward, or in the "SET" position, they will be thrown to the "E" position and held in a holding position without being knitted).
- 3 Knitting on the right half only, Decrease 1 stitch at NECK edge on the 1st and every following 4th row until only 6 sts. remain and the R.C. 56, ending with the carriage on right (COR) of knitting.
- 4 Cast off these 6 stitches from right to left (Armhole towards neck).
- 5 Put R.C. back to 000, and HCL to 3.
- 6 Rejoin wool and knit left half to match right half but reversing all shapings and casting off the final 6 stitches at R.C. 57 and from left to right.



Band (Classic)

R.C. 000. With wrong side towards you, pick up down one side of neck down to the V point, twisting the centre loop into a stitch. (Approx. 42 stitches) Weaving brushes to "T", bring stitches to "E" position and knit as follows.

Row 1 T 7 Knit

„ 2 T 7 DECREASE 1 st. at V and knit
 „ 3 T 7 „ 1 „ V „ „
 „ 4 T 6.2 „ 1 „ V „ „
 „ 5 T 6.2 „ 1 „ V „ „
 „ 6 T 6.1 „ 1 „ V „ „
 „ 7 T 6 „ 1 „ V „ „
 „ 8 T 5.2 „ 1 „ V „ „
 „ 9 T 5.1 „ 1 „ V „ „
 „ 10 T 5 „ 1 „ V „ „
 „ 11 T 8 (Crease row) Knit plain

Row 12 T 5 Increase 1 st. at V and knit

„ 13 T 5.1 „ 1 „ V „ „
 „ 14 T 5.2 „ 1 „ V „ „
 „ 15 T 6 „ 1 „ V „ „
 „ 16 T 6.1 „ 1 „ V „ „
 „ 17 T 6.2 „ 1 „ V „ „
 „ 18 T 6.2 „ 1 „ V „ „
 „ 19 T 7 „ 1 „ V „ „
 „ 20 T 7 „ 1 „ V „ „
 „ 21 T 7 Knit plain (back to 42 sts). Cast off.
 Knit other half of band to match first half.

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Practice Piece

Double Hem

- 1 Put comb on 50-50. Row counter (RC) to 000.
- 2 Bring forward to position "B" (Working position), 40 stitches.
- 3 Tension 10. **Press in BOTH PART buttons.**
- 4 Insert pattern card 8 and SET lever.
- 5 Knit 1 row. **Press PLAIN button**, and change to tension 6. Drop comb.
- 6 Knit a further 9 rows so that your row counter should now read "10".
- 7 Change to tension 9 and knit 1 row to give a crease edge.
- 8 Tension 6, knit a further 10 rows, (making RC 21 rows in all).
- 9 SET lever and then bring the forward needles at position "D" to "E" position
- 10 Transfer the stitches from comb up to needles in position "E".
- 11 Tension 8 and holding work well down, knit 1 row.
- 12 Tension 7 continue to knit and after a few rows, draw up loose thread.

Round Necks

Cast on 40 sts. Bring to E position 25 sts. on opposite side from carriage. HCL's on 2. Working on 15 sts. knit across. Come back bringing forward 1 needle to E position on neck edge. Knit across. Knit back bringing 1 needle to E position at neck edge. Continue the same until 8 of the 15 sts. are left in working position. Knit 8 plain rows then cast off 7 sts. shifting the 8th st. over onto an empty needle, then pick up the 7 end sts. at the neck edge of the knitting on the 8 rows just knitted and place them on the empty needles between those in E position and the 8th st. Break off wool. Put the 8 sts. in E position. Take the carriage across to the other side. HCL on 1. Pull back the 15 sts. to C position then knit one row across. Knit back bringing out one needle. Repeat until 8 sts. are left. Knit 8 plain rows. Cast off 7 sts. as before then pick up and place the 7 neck edge sts. on an empty needle beside the 8th stitch.

Neckband

Knit 12 rows, then 4 rows waste. Take off machine.

Round Necks (Alternative Method)

Place centre stitches on spare wool. Knit and decrease the same as for V-neck with one side being placed in holding position until one stitch remains. Cast off. Change carriage to opposite side and move HCL to 3. Knit to correspond with other side.

Boy's 'V' Neck Raglan Pullover (Abbreviated Version)

Materials: 4-ply wool – 7 (8, 9) ozs.

Measurements: Chest – 26 (28, 30)
Length – 15 (16½, 18½)
Sleeve seam – 12" (adjustable)

Tension: 6½ stitches and 9 rows to 1 inch.

Back

(Using alt. N.) * cast on 94 (102, 108) sts. T.3. K 30 rows and turn hem for Continental Rib. T.7 and st.-st. (all needles in 'B' position). K. 70 (80, 90) rows.

Shape Armholes. Cast off 3 st. at beg. of next 2 rows *. Dec. 1 st. ff. at each end of next 10 rows. Dec. 1 st. ff. at each end of every alt. row until 30 (32, 34) st. rem. Take off onto stitch holder or waste wool.

Front

As Back from * to *.

Shape Armholes & 'V' neck. HCL to 2. Place 47 (51, 54) sts. to 'E' pos. on side furthest from car. K. on rem. sts.

Dec. 1 st. at armhole edge on every row for 10 rows. Then dec. 1 st. at 'V' neck every 4th row **and at the same time** dec. 1 st. at armhole edge on every alt. row until 2 sts. rem. Cast off. HCL 3. K. other front reversing shaping.

Sleeves

(Using alt. N.). Cast on 48 (54, 60) sts. T.3. K. 30 rows and turn hem for Continental Rib. T.7 and st.-st. (all needles in 'B' position). Inc. at each end of next and every 6th row until 76 (82, 88) sts. K. until 120 (130, 150) rows.

Shape Armholes. Cast off 3 sts. at beg. of next 2 rows. Dec. 1 st. at each end of next 10 rows. Dec. 1 st. at each end of every alt. row until 12 (12, 14) sts. rem. Take off onto stitch holder or waste wool.

Neckband

Place sts. from one side of the 'V' and one sleeve onto the machine. HCL 3. Bring all N. to 'E' pos. K. 1 row. Dec. 1 st. at 'V' neck edge every alt. row 6 times (12 rows). Inc. 1 st. at 'V' neck every alt. row 6 times (12 rows). Cast off.

Place sts. from other side of 'V' and other sleeve and back onto the machine and complete similar neckband. Sew seams. Set in sleeves. Catch down edge of 'V' band.

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Boy's 'V' Neck Raglan Pullover (Unabbreviated Version)

Materials: 4-ply wool—7 oz., 8 oz., 9 oz.

Measurements: Chest—26" : 28" : 30"
Length—15" : 16½" : 18½"
Sleeve seam—12" (adjustable)

Tension: 6½ stitches and 9 rows to 1 inch.

Back

(Using alternate needles) * Cast on 94 (102, 108) stitches. Tension 3. Knit 30 rows and turn hem for Continental Rib. Change to Tension 7 and Stocking Stitch. (all needles in 'B' position). Knit 70 (80, 90) rows.

Shape Armholes. Cast off 3 stitches at beginning of next 2 rows *. Decrease 1 stitch Fully Fashioned at each end of next 10 rows. Decrease 1 stitch Fully Fashioned at each end of every alternate row until 30 (32, 34) stitches remain. Take off onto stitch holder or waste wool.

Front

As Back from * to *.

Shape Armholes & 'V' neck. HCL. to 2. Place 47 (51, 54) stitches to 'E' position on side furthest from carriage. Knit on remaining stitches.

Decrease 1 stitch at armhole edge on every row for 10 rows. Then decrease 1 stitch at 'V' neck every 4th row **and at the same time** decrease 1 stitch at armhole edge on every alternate row until 2 stitches remain. Cast off. Set HCL to 3. Knit other side reversing shaping.

Sleeves

(Using alternate needles)

Cast on 48 (54, 60) stitches. Tension 3. Knit 30 rows and turn hem for Continental Rib. Tension 7 and Stocking Stitch. (all needles in 'B' position). Increase at each end of next and every 6th row until 76 (82, 88) stitches. Continue until 120 (130, 150) rows.

Shape Armholes. Cast off 3 stitches at beginning of next 2 rows. Decrease 1 stitch at each end of next 10 rows. Decrease 1 stitch at each end of every alternate row until 12 (12, 14) stitches remain. Take off onto stitch holder or waste wool.

Neckband Place stitches from one side of the 'V' and one sleeve onto the machine. HCL. 3. Bring all needles to 'E' position. Knit 1 row. Decrease 1 stitch at 'V' neck edge every alternate row 6 times (12 rows). Increase 1 stitch at 'V' neck every alternate row 6 times (12 rows). Cast off.

Place stitches from other side of the 'V' and other sleeve and back onto the machine and complete similar neckband. Sew seams. Set in sleeves. Catch down edge of 'V' band.

Common Abbreviations

RA., ribbing attachment	PB., part buttons
LB., lower bed	RPB., right part button
MB., main bed	LPB., left part button
COA., cast on automatically	TB., tuck buttons
alt., alternate (alternating)	RTB., right tuck button
CK., set machine for circular knitting	LTB., left tuck button
RK., set machine for plain rib knitting	tog., together
trans., transfer	rep., repeat(ing)
HCL's., holding cam levers	YTU., yarn tension unit
BY., break yarn	W., set machine for weaving
CL., cam levers	SL., set lever
LCL., left cam lever	RC., row counter
RCL., right cam lever	CK., change knob
TL., tucking lever	CL., change lever
HPL., half pitch lever	beg., beginning
RL., racking lever	rem., remaining (remainder)
T., tension	COBH., cast on by hand over every needle
N., needle(s)	trans., transfer
st(s) ., stitch(es)	(adjust.) ., adjust length at this stage if required
K., knit	HCL's., holding cam levers
pos., position	BY., break yarn
COR., carriage on right	MDE., make double edge by placing each loop at cast on edge onto needles in B position
COL., carriage on left	alt., alternate (alternating)
000., set row counter to 000	in(s) ., inch(es)
fol(s) ., following (follows)	LC., lace carriage
fin., finishing	st.st., stocking stitch
cont., continue	f.f., fully fashioned
patt., pattern(s)	
inc., increasing (increase)	
dec. decrease(ing)	

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Samples

If your samples look like the photographs and you have no queries on them please do not send them to us. If you have a query on the sample please fasten it to a query sheet and print your query in block capitals. If this is sent to us we will solve the problem for you.

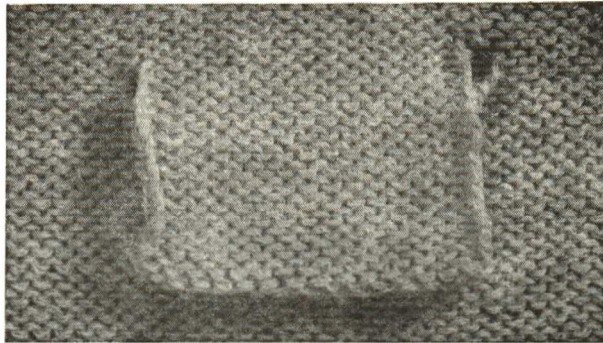
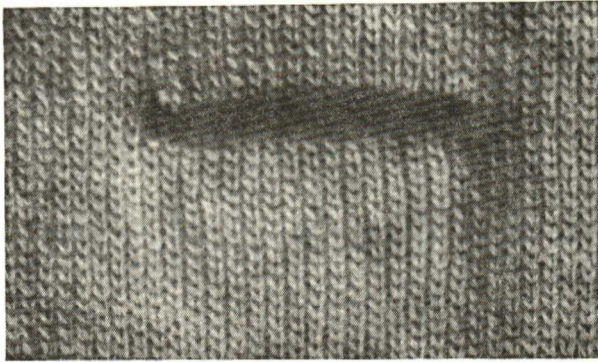
Vertical buttonhole



V-neck

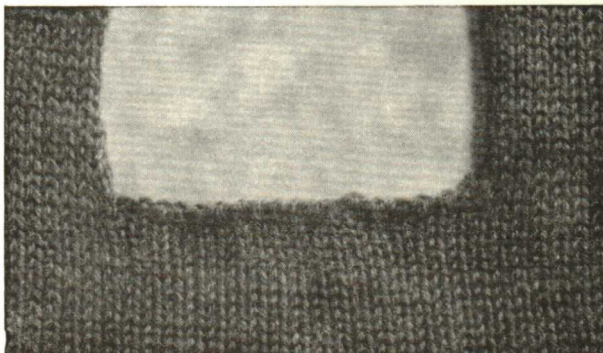
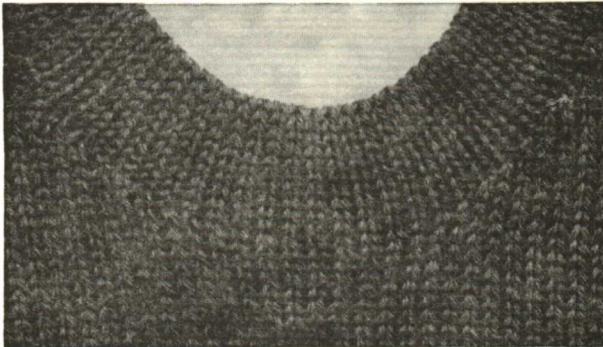


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Pocket

Round and Square





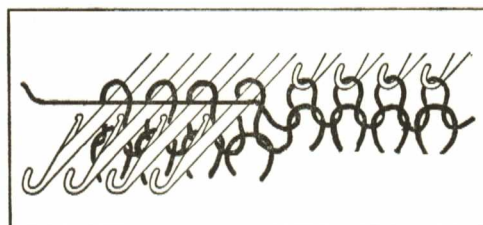
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Short Row Knitting

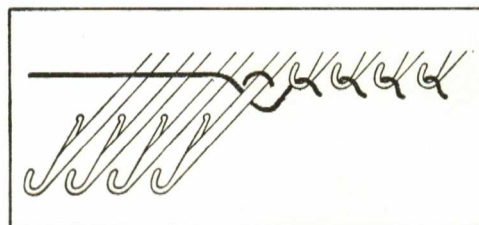
- 1 Cast on 40 stitches.
- 2 Knit 20 rows.
- 3 Put HCL's to 1.
- 4 CARRIAGE at right.
- 5 Push end 2 needles at left to E POSITION.
- 6 Knit across to left.
- 7 Bring forward 3rd needle from left edge to E POSITION.
- 8 Knit to right.
- 9 Push 4th and 5th to E POSITION.
- 10 Knit to left.
- 11 Push 6th needle to E and so on until only 3 stitches remain in B POSITION.
- 12 CARRIAGE on right.
- 13 'Push back first 4 nearest the CARRIAGE in E POSITION to D POSITION and knit to left. Push needle in B POSITION nearest to those in E POSITION forward to E POSITION. Knit to right.' Repeat until all stitches are in B POSITION. You will find the knitting is longer on the right than it is on the left.

Alternative Method

- 1 Cast on 40 sts.
- 2 K. 20 rows.
- 3 HCL's to 1.
- 4 COR.
- 5 Push end 3 needles at left to E pos.
- 6 Knit across.
- 7 Take wool round last needle in E POSITION.



Before



After

- 8 K to right.
- 9 Push next 3 sts. at left to E pos.
- 10 K to left and take wool round last needle.
- 11 Continue above operations till 3 sts. remain.
- 12 COR. Push back 3 sts. in E pos. nearest carr. back to C pos. take wool round last needle. K 2 rows. Repeat till all sts. in B pos. Compare your samples from both methods Use the method you prefer.

Uses

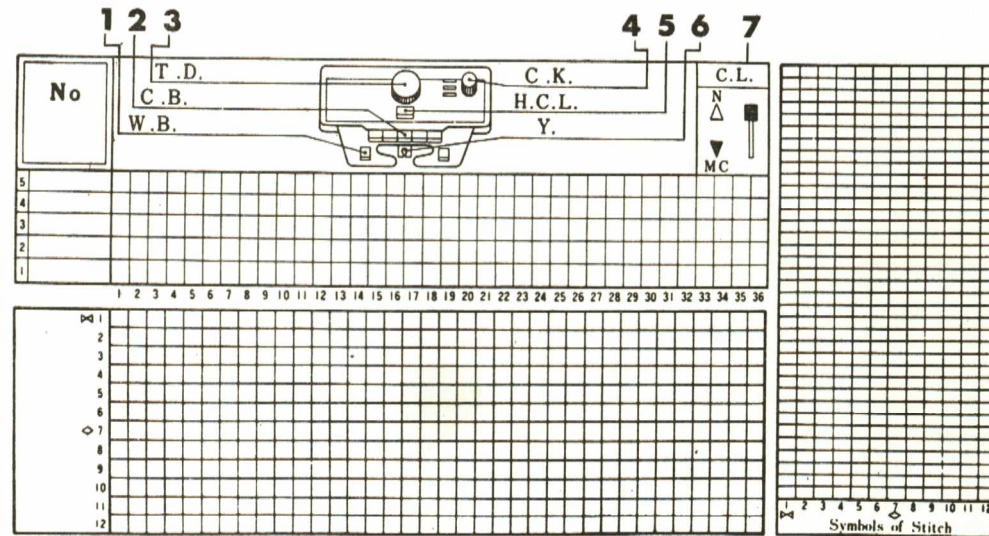
Heels in socks (see enclosed pattern) Darts Some types of shoulder shaping. Flared skirts (knitted from side seam to side seam).

How to work Pattern Stitches on your Knitting Machine

You are able to knit all kinds of beautiful pattern stitches on your knitting machine with amazing ease only by learning how to read the Operation chart and Symbols which are used on the diagrams throughout the book.

How to read the operation chart

- 1 This mark indicates the position at which the button for the weaving pattern brush should be set. Set the button at either the 'N' or 'T' position according to the operation chart.
- 2 This mark indicates which of the carriage buttons should be depressed, if necessary. When PLAIN is shown on the table, it is necessary to depress the PLAIN cam button. However, this only releases the other buttons and does not stay depressed. When right and left TUCK are indicated, depress both TUCK buttons and when the Right TUCK or Left TUCK is indicated depress the TUCK button specified. When Right and Left PART are indicated, depress both PART buttons and when Right Part of Left Part buttons are indicated, depress the Part button indicated.
- 3 A number here indicates the graduation on the tension dial, at which the dial should be set. Adjust the graduations on the dial depending on the thickness of the yarn used and your personal taste concerning the size of the stitches.
- 4 This mark indicates the position at which the change knob should be set. Set the change knob at any of the 3 positions – N, T and M.C. as indicated.
- 5 This mark indicates the number of the position at which the holding cam lever (H.C.L.) should be set. Set the H.C.L. at any of the 5 positions indicated.
- 6 This mark indicates yarn used for coloured knitting. Select the colour of the yarn according to your personal taste.
- 7 The marks \triangle and ∇ indicate the positions at which the change lever should be set. When this mark appears, \triangle shift the lever away from yourself, and when this mark appears, ∇ shift the lever towards yourself.



All this indicates the order of steps of operation

Note: a vertical line across the squares denotes the end line for pattern knitting and the mark \blacktriangle shows the position at which the pattern repeat regulator shall be set.

Set Lever (S.L.)

When a mark (/) is shown in the set lever column, first swivel the set lever and then operate the other steps in order.

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Direction of carriage movement

The mark ← or → indicates the direction of the K carriage movement and the K carriage should be moved according to the direction of this arrow.

Direction of L carriage movement (L.C.)

When a lace pattern, pull up and lace pattern or weaving and lace pattern is knitted, the L carriage must be used. Move the L carriage in the direction of the arrow. If your Lace carriage is on the wrong side for the direction required, move it to the other side *before* you set the lever. (A) The lace carriage is always used before the knitting carriage, when knitting lace patterns.

Colour of yarn (Y)

Main yarn in the yarn feeder, is indicated by a mark (a) when the mark in this column changes, change the yarn as indicated.

Secondary yarn and laying in thread (L.Y.)

When a multi-colour pattern or weaving pattern is knitted, it is necessary to use a secondary colour yarn or laying in thread. When the mark b, c or d is shown in the secondary colour yarn and laying-in thread column, knit the pattern by laying secondary colour yarn or laying-in thread over the needles.


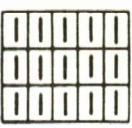
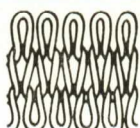
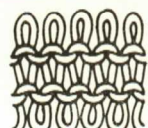

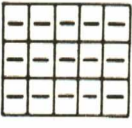
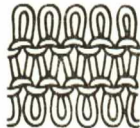
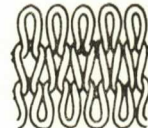

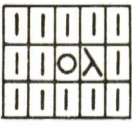
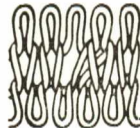
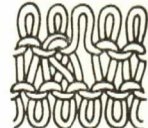

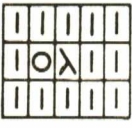

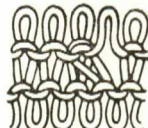

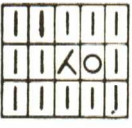
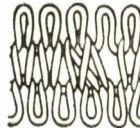
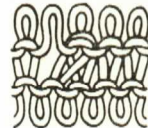

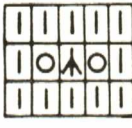
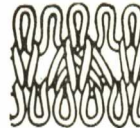
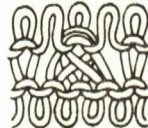

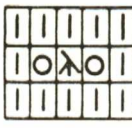
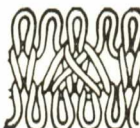
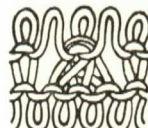

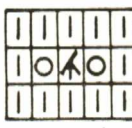
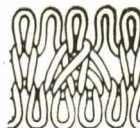
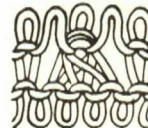

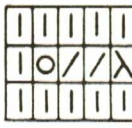

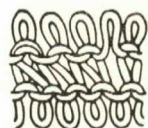

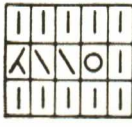
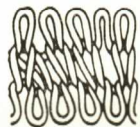
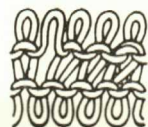
Step indicating lever movement (S.I.L.)

In the operation card for the lace patterns, pull up and lace patterns or weaving and lace patterns a step indicating lever movement column is provided. When this mark **↓** is shown in this column, move the S.I.L. one step to right by operating the feeding lever once by hand.

Hole punching positions for needle selector


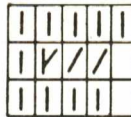

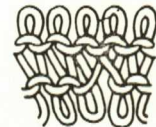

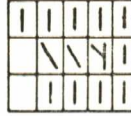

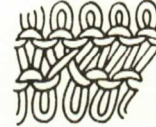

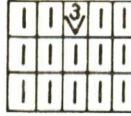

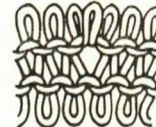

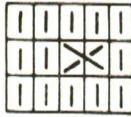
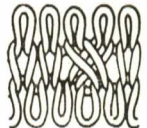
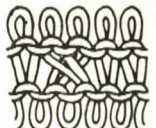

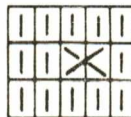
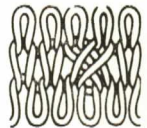
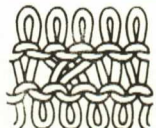


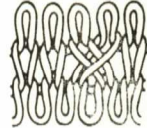
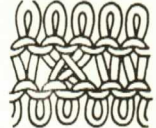

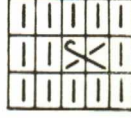
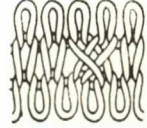
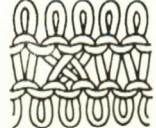

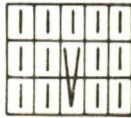
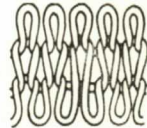
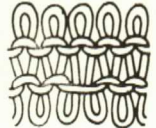

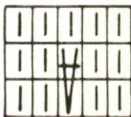
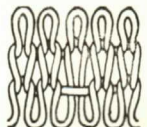
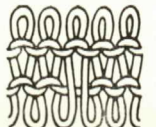

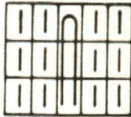
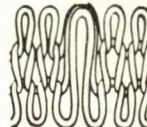

The mark **O** represents the positions at which a hole should be punched on the spare card by using the punch.

Knitting Symbols

Symbol & Name	How to Work			
Knit stitch 	Face loop of plain stitch.			
Purl stitch 	Back loop of plain stitch.			
Hole 	Hole made by transferring the stitch to the next needle.			
Two stitches together 	Transfer right stitch to the adjacent left needle.			
Two stitches together 	Transfer left stitch to the adjacent right needle.			
Three stitches together 	The centre stitch on top of the left and right stitches.			
Three stitches together 	Right stitch on top.			
Three stitches together 	Left stitch on top.			
Lean stitch to the right 	Lean stitch to the right.			
Lean stitch to the left 	Lean stitch to the left.			



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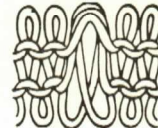
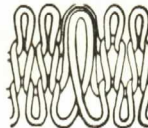
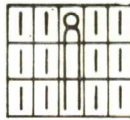
Symbol & Name	How to Work			
<p>Increased stitch to the right</p> 	<p>Increase one stitch to the left.</p>			
<p>Increased stitch to the left</p> 	<p>Increase one stitch to the right.</p>			
<p>Three stitch increase</p> 	<p>The loops made by winding the wool around the needles.</p>			
<p>Crossing, right over the left</p> 	<p>Cross the stitches with the right stitch over the left.</p>			
<p>Crossing, right over the right</p> 	<p>Cross the stitches with the left stitch over the right.</p>			
<p>Cross stitch through left stitch</p> 	<p>Crossed stitches with the right side stitch through the stitch on the left side.</p>			
<p>Cross stitch through right stitch</p> 	<p>Crossed stitches with the left side stitch through the stitch on the right side.</p>			
<p>Slip stitch</p> 	<p>A loop marked is pulled up with yarn across behind it.</p>			
<p>Float stitch</p> 	<p>A loop marked is pulled up with yarn across in the front.</p>			
<p>Tuck stitch</p> 	<p>A few loops on marked rows pulled up onto one needle.</p>			

Symbol & Name	How to Work
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Twisted tuck stitch



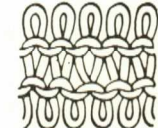
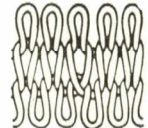
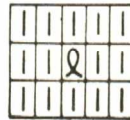
A stitch twisted and pulled up onto a needle above.



Twisted stitch



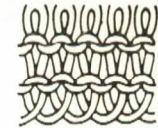
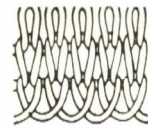
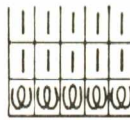
A stitch is twisted.



Winding stitch

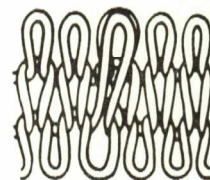
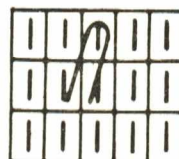
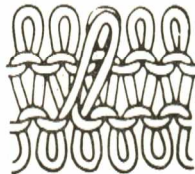
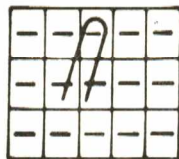


The loops made by winding the wool around the needles.

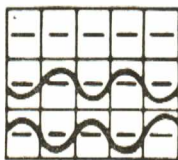


Remarks

- 1 As a rule, the symbols are used for the right side of the garment. When it especially calls for the wrong side of the garment, the stockinette sts. are indicated by marks.
- 2 Diagram of symbols: In order to represent the structure of the pattern sts. the square sections are usually used having each symbol in the centre of the section.
- 3 Sinker loops: In order to represent the sinker loops the symbols are placed in between the sections as shown by the figure No. 1, and the row below it in the figure is to line the row below the mark in the diagram of symbols.



- 4 Woven in wool: The wool in contrasting colour woven in the garment is indicated like the figures No. 2.



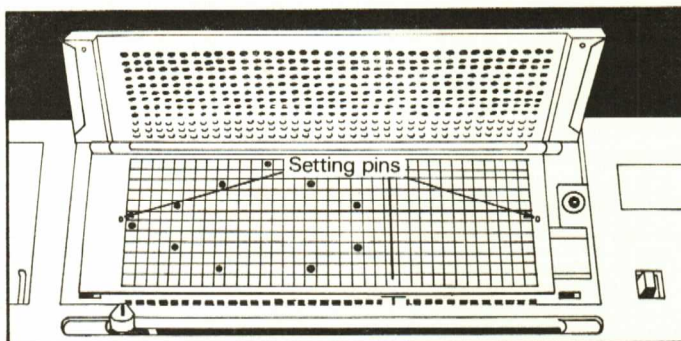
Here and on pages 38, 39 and 40 details are given on reading a machine pattern chart and relating it to the machine buttons.

Let's start with the Pattern Selector Buttons. There are eight of these at the back of the machine at the right hand end and we have used them once in the automatic cast on edge. There is also a release button at the left hand end of the set of eight.

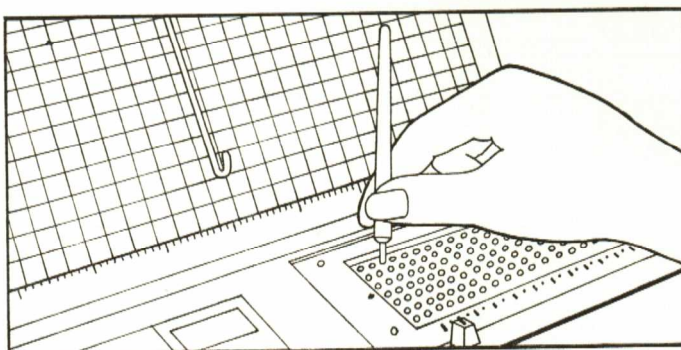
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How to Punch Holes in a spare card

- (1) Push the release lever to the right which will open the card holder.
- (2) Insert a spare card and align it with the right and left pins in the cassette box.
- (3) Close the card holder.
- (4) Punch holes on the card according to the position for needle selection for the pattern desired using the puncher provided.

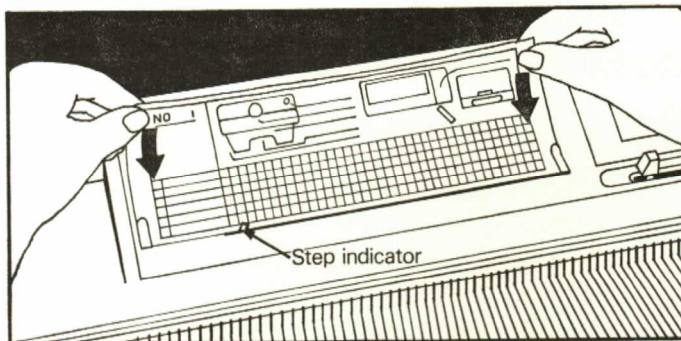


- Hold the puncher at a right angle to the card holder.
- Insert the puncher through the card holder hole as far as it will go and then pull it out being careful not to slant the puncher.
- When punching a hole in the position of the S.I.L. shift the S.I.L. a bit to do so.



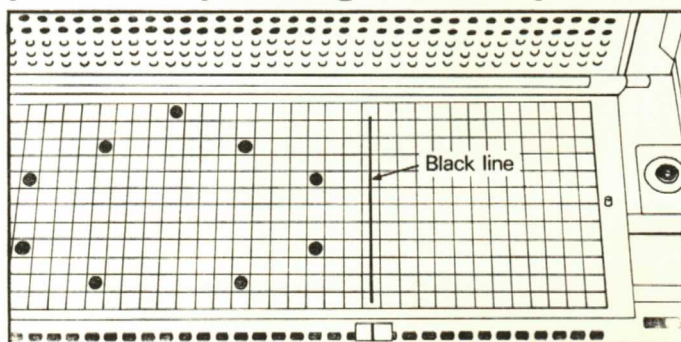
How to copy required items on the operation card and how to set the operation card in position when copying from a pattern book

- (1) Copy the required items from the operation chart on the operation card.
- (2) When setting the operation card in position, put the operation card between the card holder springs as shown in the illustration.



How to set the pattern repeat regulator in position

- (1) Push the release lever to the right and the card holder will be opened.
- (2) Slide the pattern repeat regulator to the position indicated by the mark ▲.



Pull-up or H.C.L. Pattern Stitches

What are Pull-up stitch patterns ?

The needles which have been arranged to the foremost resting position (E) by the operation of the '2' position of the HCL, do not knit for certain numbers of rows. After this, by setting the HCL on the next row to '3', all the crossing yarns in the needles will knit at the same time to form pull-up stitches.

Specialities of Pull-up stitches

It is the most widely used and favourite pattern stitch. The surface of the garment is uneven and the finished garments keep their shape well. Usually the wrong side of the knitting is used.

How to knit the Pull-up pattern stitches

The diagram shows a carriage with various controls labeled: T.D. (Tension Dial), C.B. (Carriage Button), W.B. (Weaving Button), C.K. (Change Knob), H.C.L. (Holding Cam Lever), Y. (Yarn in Feeder), and C.L. (Change Lever). Below the carriage is a pattern card with a grid. The grid has columns numbered 1 to 36 and rows numbered 1 to 12. The card contains symbols for K.C., H.C.L., and S.L. (Step Indicator). A legend below the grid shows symbols for needles 1 through 12. To the right of the grid is a photograph of the resulting diamond-shaped pull-up stitch pattern.

Preparation for knitting: Copy the required items from the pattern knitting table onto the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as follows.

Tension Dial (TD)	5	Change knob (CK)	N
Holding cam lever (HCL)	2	Carriage button (CB)	PLAIN
Weaving button (WB)	N	Yarn in feeder	a
- (2) Shift the change lever (CL) to Δ .
- (3) Push the release lever in the pattern centre to the right to open card holder. Next, set the pattern card in position and set the pattern repeat regulator at 12, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder using the puncher according to the illustration of the punched positions for needle selection.
Punch holes at (1), (5), (9) in the 1st column at (3), (7), (11) in the 7th column.
- (5) Set the step indicator at the starting position (the first step of the operating process).

Order of Operations

- 1 Swivel the set lever and select the needles, then move the K carriage from right to left.
 - 2 Move the K carriage from left to right.
 - 3 Move the K carriage from right to left.
 - 4 Move the K carriage from left to right.
 - 5 Shift the HCL to 3 and then move the K carriage from right to left.
 - 6 Move the K carriage from left to right.
 - 7 After swivelling the set lever, shift the HCL to 2 and move the K carriage from right to left.
 - 8 Move the K carriage from left to right.
 - 9 Move the K carriage from right to left.
 - 10 Move the K carriage from left to right.
 - 11 Shift the HCL to 3 and move the K carriage from right to left.
 - 12 Move the K carriage from left to right.
- ★ When all the 12 steps are finished, the step indicator will return to the first step automatically so that you can repeat the 12 steps.

Brother home knitting tuition Lesson 4

Tuck Stitch Patterns

What are Tuck stitches?

When you depress a TUCK button and operate the carriage once or twice, by the operation of the cams, the needles are pushed out just far enough so that the loops of the previous stitches do not go behind the latches, and the yarn catches in the hooks. By repeating the operation two or three times many yarns are hooked in the needles. Then on the following step stockinette stitches are knitted on all the needles to form Tuck stitch patterns.

Specialities of Tuck stitch patterns

This type of pattern has a particular structure of stitch and is applied for many purposes. Depending upon the patterns, it makes rather thick and soft garments.

How to work Tuck stitch patterns

The diagram shows a Brother knitting machine carriage with various controls labeled: T.D. (Tension Dial), C.B. (Carriage Button), W.B. (Weaving Button), C.K. (Change Knob), H.C.L. (Holding Cam Lever), Y. (Yarn in Feeder), and C.J. (Change Lever). Below the carriage is a pattern card with columns numbered 1 to 34 and rows numbered 1 to 12. The card contains symbols for K.C. (Knit Carriage Control), TUCK.B. (Tuck Button), and S.L. (Set Lever). To the right of the pattern card is a grid of symbols for needle selection, and further right is a photograph of the resulting tuck stitch fabric.

Preparation for knitting . . . Copy the required items from the operation chart onto the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operation card.
 Tension Dial (TD) 5 Change Knob (CK) N
 Holding cam lever 3 Carriage button (CB) both TUCK
 Weaving button (WB) N Yarn in feeder (Y) a
- (2) Shift the change lever to Δ
- (3) Push the release lever in the Pattern Centre to the right to open the card holder. Next set the pattern card in a position and the pattern repeat regulator at 12, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder using the puncher according to the illustration of the punched positions for needle selection.
 Punch hole at (1), (3), (5), (7), (9), (11) each in the 1st, 3rd, 5th, 7th, 9th, columns and at (2), (4), (6), (8), (10), (12) in the 2nd, 4th, 6th, 8th, and 10th, columns.
- (5) Set the step indicator at the starting position (the first step of the operating process)

Order of operations

- 1 After selecting the needles using the set lever, move the K carriage from right to left
 - 2 After selecting the needles using the set lever, move the K carriage from left to right.
 - 3 After selecting the needles using the set lever, move the K carriage from right to left.
 - 4 After selecting the needles using the set lever, move the K carriage from left to right.
 - 5 After selecting the needles using the set lever, move the K carriage from right to left.
 - 6 After selecting the needles using the set lever, move the K carriage from left to right.
 - 7 After selecting the needles using the set lever, move the K carriage from right to left.
 - 8 After selecting the needles using the set lever, move the K carriage from left to right.
 - 9 After selecting the needles using the set lever, move the K carriage from right to left.
 - 10 After selecting the needles using the set lever, move the K carriage from left to right.
 - 11 Depress the PLAIN buttons and move the K carriage from right to left.
 - 12 While the PLAIN buttons remain, move the K carriage from left to right.
- ★ Repeat all these steps.

Pull-up Tuck Stitch Patterns

What are Pull-up tuck stitch patterns?

Pull-up tuck pattern stitches are the designs worked by using the (HCL) and the tuck buttons together. Namely, on one row some stitches are pulled up, and on the next tuck stitches are worked. In this way pull-up stitches and tuck stitches are alternatively worked on the garment.

Specialities of Pull-up tuck stitch patterns

Unique pattern stitches are worked by these very simple operations. This type of knitting has less elasticity. One of the representative pattern stitches of this type is called 'Modified Fishermans' Rib'.

How to work Pull-up tuck stitch patterns

2 sts. 8 rows = 1 pattern

Preparation for knitting . . . Copy the required items from the operation chart onto the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operation card.
Tension dial (TD) 6 Change knob (CK) N
Holding cam lever (HCL) 4 Carriage button TUCK right
Weaving button (WB) N Yarn in feeder a
- (2) Shift the change lever to Δ
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next set the pattern card in position and set the pattern repeat regulator at 8, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder by using the puncher according to the illustration of the punched positions for needle selection.
Punch a hole at (1), (3), (5), (7), (9) and (11) in the 1st, 3rd, 5th and 7th columns.
- (5) Set the step indicator at the starting position (the first step of the operating process).

Order of operations

- 1 Select the needles using the set lever and move the K carriage from right to left with yarn colour (a).
 - 2 Move the K carriage from left to right.
 - 3 Select the needles using the set lever and move the K carriage from right to left.
 - 4 Move the K carriage from left to right.
 - 5 Select the needle using the set lever and move the K carriage from right to left.
 - 6 Move the K carriage from left to right.
 - 7 Select the needles by using the set lever and replace the yarn in the yarn feeder with another colour yarn (b), then move the K carriage from right to left.
 - 8 Move the K carriage from left to right.
- ★ When all the 8 steps are finished, the step indicator will return to the first step of the operating process automatically so that you can repeat the steps.

Brother home knitting tuition Lesson 4

Open Pattern Stitches

What are the Open patterns?

Open patterns are worked with a certain number of needles placed in the non-operating position (A). In this position you can work very interesting pattern stitches by using pull-up stitches or tuck stitches.

Specialities of Open patterns

Even simple pattern stitches will appear quite differently by omitting a certain number of needles.

When fine wool or cotton thread is used in this way, it will give the garment a lacy look while when heavy yarn is used it will give a bulky look. By changing the materials you can enjoy many different effects on the garment by this simple operation.

How to work Open patterns

The diagram illustrates the setup for working an open pattern stitch. It includes an operation card with the following settings: T.D. 5, C.K. N, C.I. N, C.B. PLAIN, H.C.L. 2, and W.B. N. The pattern card shows a grid with symbols for needle selection (1-12) and carriage movement (K, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z). A photograph of the resulting fabric texture is shown on the right.

Preparation for knitting:—Copy the required items from the operation chart on to the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operation card.
Tension dial (TD).....5 Change knob (CK).....N
Holding cam lever (HCL).....2 Carriage button (CB).....PLAIN
Weaving button (WB).....N Yarn in feeder (Y).....a
- (2) Shift the change lever in the pattern centre to \triangle
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next set the pattern card in position and the pattern repeat regulator at 6, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder using the puncher according to the illustration of the punched positions for needle selection.
- (5) Set the step indicator at the starting position (the first step of the operating process)
- (6) Push back the needles corresponding to the (1) and (3) position in a set of twelve to the A position by reference to the pattern card. (If there is a stitch on these needles transfer it to the adjacent needle and return the empty needle to A position).

Order of Operations

- 1 Select the needles by use of the set lever and move the K carriage from right to left.
 - 2 Move the K carriage from left to right.
 - 3 Shift the holding cam lever to 3 and move the K carriage from right to left.
 - 4 Select the needles by using the set lever and shift the holding cam lever to 2, then move the K carriage from left to right.
 - 5 Move the K carriage from right to left.
 - 6 Shift the holding cam lever to 3 and move the K carriage from left to right.
- ★ When the six steps are finished, the step indicating lever will return to the first step automatically so that you can repeat all the steps.

Lace like Patterns

What are lace like patterns?

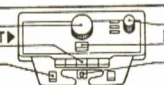
Lace-like patterns are worked by using Tuck buttons and Part buttons in combination. The effects appear on the surface of the garment as tuck stitches and slip stitches, forming interesting lace-like designs.

Specialities of Lace-like patterns

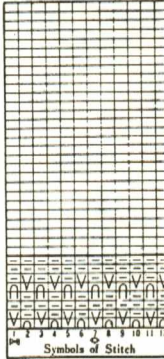

Lace-like patterns are mostly soft and you may enjoy the changes by simply altering the tensions. The right side of the garment is rather uneven, but it is good for keeping the shape of the garment. The wrong side of the knitting is often used in these intricate pattern stitches.

How to work Lace-like patterns

No	T. D.	6	C. K.	N	C. L.
	C. B.	← TUCK. PART →	H. C. L.	3	N
	W. B.	N	Y.	a	MC



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

Symbols of Stitch
(2 stst, 8 rows - 1 pattern)

Preparation for knitting . . . Copy the required items from the operation chart onto the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operating card.
Tension Dial (TD) 5 Carriage button (CB) Depress both the left Holding cam lever (HCL) 3 TUCK and right PART button simultaneously.
Weaving button (WB) N ly.
Change Knob (CK) N Yarn in feeder (Y) a
- (2) Shift the change lever to \triangle
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 8, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder using the punch according to the illustration of punched positions for needle selection.
Punch a hole at (1), (3), (5), (7), (9), and (11) in the 1st and 6th columns at (2), (4), (6), (8), (10), (12) in the 2nd and 5th columns.
- (5) Set the step indicator at the starting position (the first step of the operating process).

Order of Operations

- 1 Select the needles by using the set lever and move the K carriage from right to left.
 - 2 Select the needles by using the set lever and move the K carriage from left to right.
 - 3 Depress the PLAIN button and move the K carriage from right to left.
 - 4 Move the K carriage from left to right.
 - 5 Select the needles by using the set lever and depress the left TUCK and right PART buttons simultaneously, then move the K carriage from right to left.
 - 6 Select the needles by using the set lever and move the K carriage from left to right.
 - 7 Depress the PLAIN button and move the K carriage from right to left.
 - 8 Move the K carriage from left to right.
- ★ When the 8 steps are finished, the step indicator will return to the first step automatically so that you can repeat all the steps.

- (5) Set the step indicator at the starting position (the first step of the operating process).

Order of Operations

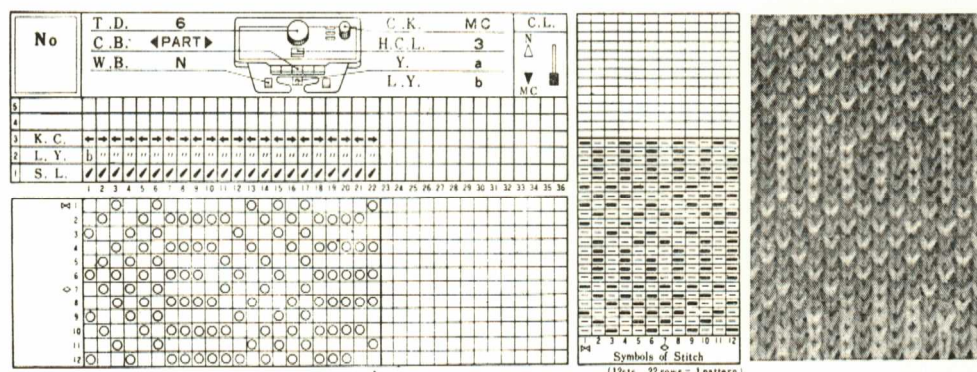
- 1 Select the needles using the set lever and move the K carriage from right to left (yarn A)
 - 2 Select the needles using the set lever and move the K carriage from left to right.
 - 3 Select the needles using the set lever and change the yarn in the yarn feed from (A) to (B) then move the K carriage from right to left.
 - 4 Select the needles using the set lever and move the carriage from left to right.
 - 5 Select the needles using the set lever and change the yarn in the yarn feed from (B) to (A) then move the K carriage from right to left.
 - 6 Select the needles and move the K carriage from left to right
 - 7 Select the needles and change the yarn in the yarn feed from (A) to (B) and then move the K carriage from right to left.
 - 8 Select the needles and move the K carriage from left to right.
 - 9 Select the needles using the set lever and change the yarn in the yarn feeder from (A) to (B) then move the K carriage from right to left.
 - 10 Select the needles using the set lever and move the K carriage from left to right.
 - 11 Select the needles using the set lever and change the yarn in the yarn feeder from (B) to (A) then move the K carriage from right to left.
 - 12 Select the needles and move the K carriage from left to right.
- ★ When all the 12 steps are finished, the step indicator will return to the first step automatically so that you can repeat all the steps.

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Fairisle Patterns

Explanation of Fairisle Patterns

By the two step Needle Selection structure of this machine two yarns of different colours are knitted simultaneously by the simple method of putting the contrasting colour over the needles.



The diagram shows a Brother knitting machine carriage with various controls labeled: T.D. (Tension Dial), C.B. (Carriage Button), W.B. (Weaving Button), C.K. (Change Knob), H.C.L. (Holding Cam Lever), Y. (Yarn in Feeder), L.Y. (Laying-in Yarn), M.C. (Machine Control), and C.L. (Change Lever). Below the carriage is a pattern card with a grid of symbols (circles and squares) representing needle selections for two yarns (a and b) over 36 rows. To the right is a photograph of the resulting Fairisle fabric, showing a repeating pattern of two colors.

Preparation for knitting: Copy the required items from the operation chart onto the operation card.

- (1) Before setting the carriage controls knit one or two rows with the change knob on M.C. This brings all the needles in use to a forward working position. Stop with carriage on right.
Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operation card.
Tension Dial (TD) 6
Holding cam lever (HCL) 3
Weaving button (WB) N
Change knob (CK) MC
Laying in yarn, thread the automatic yarn tension unit (b)
Yarn in feeder a
Carriage button (CB) both PART
- (2) Depress both PART buttons simultaneously
- (3) Shift the change lever to ▼
- (4) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 22, then close the card holder.
- (5) Punch holes on the pattern card from above the card holder by using the punch according to the illustration of punched positions for needle selection.
- (6) Set the step indicator at the starting position (the first step of the operating process).

Order of Operations

- 1 Select the needles by using the set lever and put the laying-in yarn (b) into the left yarn guide. Then move the K carriage from right to left. (If you prefer the laying-in yarn (b) can be laid across the needles in D1 position. You will find this easier as it saves moving this yarn (b) from one yarn guide to another every row).
- 2 Select the needles by using the set lever and put the laying-in yarn (b) into the right yarn guide. Then move the K carriage from left to right.
- 3 Repeat the above process according to the operation card until the 22nd step.
- ★ When the 22 steps are finished, the step indicator will return to the first step automatically so that you can repeat all the steps.

Mens Socks

Materials — **Long Socks:** 4 (4, 5) ozs. Paton & Baldwins Nylox 4 ply.

Short Socks: 3 (3, 4) ozs. Nylox 4 ply.

Measurements: Length of foot 9 (10, 11) inches.
Length of leg to bottom of heel. LONG 16 ($16\frac{1}{2}$, 17) inches.
SHORT 10 ($10\frac{1}{2}$, 11) inches.

Tension: 15 sts. and 23 rows to 2 inches.

Note: Ribbing could be knitted by hand.

Long Socks (Both Alike)

Cast on 69 sts. T.3. K. 48 rows. Drop every 3rd st. down to 1st row and knit up as for ribbing (if ribbing is knitted by hand cast on with odd yarn and K. 6 rows. Pick up sts. on to a knitting needle (size 11) when sock is finished. K. 48 rows and cast off loosely in rib). T.5. Inc. 1 st. at right edge. K. 56 rows. Dec. 1 st. (3 sts. in by transferring the 4th st. to 5th needle and moving 3 end sts. 1 needle in) at beg. of next 2 rows and every foll. 11th and 12th (12th and 13th, 13th and 14th) rows 5 times alt. (60 sts.), K. 14 (16, 18) rows without shaping. ** Break off wool. Slip 15 sts. from both edges and on to st. holders (30 sts. remain).

Instep:

K. 70 (80, 92) Rows.

Shape toe:

HCL 1. * Always take yarn round first inside needle in E. po. Bring 1 needle opposite carr. end to E. pos. on the next 18 rows and back to C. pos. on the foll. 18 rows.
* Break off yarn and slip sts. on to st. holder. Using a flat seam, join back seam.

Shape Heel:

Bring 30 needles to B. pos. With purl side facing replace 15 sts. from each st. holder.
Work as for toe from * to *.

Sole:

K. 70 (80, 92) rows. Slip sts. on to st. holder and graft to heel sts. on st. holder.

Short Socks

Cast on 65 sts. T.3. Work 18 rows rib (see instructions for long socks). T.5, Inc. 1 st. at right edge. K. 26 (28, 30) rows. Dec. 1 st. (see instructions for long socks) at beg. of next 2 rows and every foll. 18th and 19th (19th and 20th, 20 and 21st) row 3 times alt. (60 sts.). K. 14 (16, 18) rows. Now follow instructions for long socks from ** to end.

To Make Up:

Using a flat seam, join side of foot seams and press.

Brother home knitting tuition Lesson 4

Approximate Tension Guide

2 ply Tension 2 – Tension 4

3 ply Tension 4 – Tension 6

4 ply Tension 5 – Tension 8

D.K. Tension 7 – Tension 10

Nowadays there is no fixed standard by which the thickness of wool is judged. The 4 ply in one brand may be the same thickness as 3 ply in another. This means that a sample tension piece must be done before starting the garment. If it is not done before the garment is knitted there can be no guarantee that the garment will fit correctly.

There is another reason for knitting a test piece. With a domestic knitting machine there is always a certain amount of movement on the carriage towards the back or front of the machine. This means that if you knit a sample on Tension 5 make sure you push lightly to the back whilst knitting and then knit the same sample in the same brand and ply wool but pull slightly to the front whilst knitting. The tensions of the two samples will vary. This is one of the reasons that two knitters will sometimes produce a slightly different size garment using the same wool and tension.

Finally the dyes used to colour the wool do affect the yarn in different ways and occasionally you will find that a garment knitted in one colour will turn out a slightly different size in another colour even when knitted on the same tension. This sometimes leads to more wool being necessary than stated in the pattern.

Fault Finding

When following a pattern if:-

- 1 GARMENT RIGHT WIDTH BUT TOO LONG
- 2 GARMENT RIGHT LENGTH BUT TOO WIDE
- 3 GARMENT RIGHT WIDTH BUT TOO SHORT
- 4 GARMENT RIGHT LENGTH BUT TOO NARROW

Fault

Too FEW rows per inch but stitches per inch correct.

Too FEW stitches per inch but rows per inch correct.

Too MANY rows per inch but stitches per inch correct.

Too MANY stitches per inch but rows per inch correct.

When following a machine knit pattern designed for your machine you should always be able to obtain the correct stitches and rows to the inch **provided** you are using the same brand of wool suggested by the designer although your tension dial setting may differ. If you are using a different brand of wool you may be lucky, however it is more likely that one of the above faults will occur. If this is the case always use the tension which gives you fault (1) or (3) as it is easier to adjust rows than stitches.

Trials

- 1 Take one ounce of 4 ply wool and wind it into two $\frac{1}{2}$ ounce balls. Set machine on tension 7. Cast on 40 stitches in waste yarn and knit 10 rows. Change to first $\frac{1}{2}$ ounce ball. Knit this $\frac{1}{2}$ ounce, making sure you push the carriage firmly to the back of the machine all the time you are knitting. Take the sample off when the $\frac{1}{2}$ ounce is used up and put it to one side after marking it (i.e. Sample 1).
- 2 Repeat from beginning with second $\frac{1}{2}$ ounce but this time pull the carriage lightly towards you whilst knitting. Knit up the $\frac{1}{2}$ ounce and remove from machine (Sample 2). Mark both samples to enable you to identify them and leave them for 2 or 3 days. After that time take them and measure the stitches and the rows to the inch and you will find a **very slight** difference in tension between the two. It is preferable to always keep a slight pressure towards the back of the machine when knitting as this will keep the sinker plate assembly firmly against the knitting.
- 3 Again using two $\frac{1}{2}$ ounce balls of the same wool, cast on as before and always keeping a slight pressure towards the back, knit one sample with the upper thread tension on + and the other sample with the upper thread tension on -. Again leave both samples for 2 or 3 days and then compare. The tension will vary. It is preferable to keep the upper thread tension as near to the minus as possible provided you do not start to get loops at the end of the row.

To adjust a Machine Knit Pattern

(The same operation can be carried out with a hand knitting pattern).

Enclosed are the instructions for a man's sweater. Using this as an example let us suppose you can get the right number of stitches to the inch but the wrong rows to the inch. ($6\frac{1}{2}$ stitches and 8 rows to 1 inch).

Let us suppose your sample gives $6\frac{1}{2}$ stitches but 10 rows to 1 inch. Let's adjust the back first. We will work on the first size with raglan sleeves.

Back

- 1 Cast on 120 stitches. This is correct and you have the same number of stitches to the inch.
- 2 Knit 16 rows. This we should alter—(a) Divide 16 by the rows to the inch suggested by the pattern. $16 \div 8 = 2$, (b) multiply 2×10 (the rows to the inch in your sample) = 20, therefore 20 rows. Knit 1 row for fold line. Repeat 20 rows and turn hem.
- 3 Then knit 116 rows. This number of rows we must alter in the same way as before. That is by: (a) $116 \div 8$ (the number of rows to the inch suggested by pattern) = 14.5×10 (the number of rows to the inch on your sample) = 145. Therefore knit 145 rows.
- 4 Cast off 5 stitches at beginning of next two rows. This is all right.
- 5 You are now left with 110 stitches which you must decrease until 42 stitches remain. That is a total of 68 stitches to decrease.
- 6 According to the pattern you decrease 2 stitches at each end of every fourth row. Therefore the decreasing is going to take place over 68 rows. We must adjust the rows as before. (a) $68 \div 8$ (the number of rows to the inch suggested by the pattern) = 8.5. (b) 8.5×10 (the number of rows to the inch on your sample) = 85.
- 7 Your decreasing of 68 stitches is going to take place over 85 rows.
- 8 You are going to have to knit 17 more rows without decreasing therefore decrease ff2 each end of every 5th row 17 times. (We are fortunate in this pattern as this works exactly but in other patterns you may have to have so many decreasing every 4th row and so many every 5th row. It is best to do the required number of decreases every 4th row first and then every 5th row.
- 9 42 stitches now remain. Cast off loosely and the back is completed.

The front will be identical as far as the armhole shaping is concerned, only the neck will differ. As this is only a round neck shaping the difference will only be a matter of $\frac{1}{4}$ of an inch and therefore the shaping can be taken as per the pattern but remembering the different shaping of the armhole.

Sleeves

You will find the shaping of the top of the sleeves is the same as the back. However, the lower arm is as follows:-

- 1 Cast on 52 stitches and make same size hem as on back.
- 2 You are going to increase from 52 stitches to 92 (that is a total of 40 stitches).
- 3 There are 4 rows between the first 10 increases and 6 rows between the second 10 increases. You are going to increase 20 lots of stitches (one each end). Therefore the first $10 \times 4 = 40$ rows, the second $10 \times 6 = 60$ rows (100 rows altogether). These rows must be altered as before. $100 \div 8$ (number of rows to inch suggested by pattern) = 12.5. 12.5×10 (number of rows to inch in your sample) = 125. You are going to increase 20 times in 125 rows. The easiest way to do this is to increase 1 stitch at both ends of every 6th row which then leaves you 5 more rows to knit straight.

The pattern then states adjust. This straight portion can be lengthened or left out depending on the length of the sleeves required. As your sample measured 10 rows to the inch, you must take the length of the underarm required and multiply by 10. The total number of rows in the sleeve from cuff to underarm must then not exceed the answer to this multiplication

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Plain Classic Sweaters

with raglan, set-in or saddle sleeves and crew, turtle and V-necklines

Materials 20 (22, 24, 26, 28, 30) ozs. Patons and Baldwins Double Knitting Wool.

Measurements To fit 34 (36, 38, 40, 42, 44) ins. Bust or Chest.

37 (39, 41, 43, 45, 47) ins. at underarm.

24½ (26, 27½, 29, 30½, 32) ins. length (adjustable).

8½ (9, 9½, 10, 10½, 11) ins. raglan depth.

8 (8½, 9, 9½, 10, 10½) ins. armhole depth for set-in and saddle sleeves.

14 (15, 16, 17, 18, 19) ins. sleeve width at widest point.

17½ (18, 18½, 19, 19½, 20) ins. sleeve seam (adjustable).

Tension 6½ sts. and 8 rows to 1 inch on T10.

Check your tension very carefully.

Abbreviations T., tension; COBH., cast on by hand over every N.; st(s), stitch(es); K., knit; MDE., make double edge by placing each loop at cast on edge onto N. in B pos.; COR(L), carriage on right or left; 000., set row counter to 000; (adjust.), adjust length at this stage if required; beg., beginning; foll., following; ff1., transfer the 4th st. to the 5th N., move up the 3 edge sts. to fill space, push back to A pos. the empty edge N.; ff2., transfer the 4th and 5th sts. to the 6th N., move up the 3 edge sts. to fill space, push back to A pos. the 2 empty edge N.; ff3., transfer the 4th, 5th and 6th sts. to the 7th N., move up the 3 edge sts. to fill space, pass back to A pos. the 3 empty edge N.; N., needle(s); alt., alternate; fin., finishing; pos., position; HCL's., holding cam levers; dec., decrease; inc., increase; rem., remaining; cont., continue.

Note Instructions for the larger sizes are in (), where only 1 figure is given this will apply to all sizes.



Back * T7. COBH 120 (128, 136, 144, 152, 160) sts. K. 16 rows. T10. K. 1 row for foldline. T7. K. 16 rows. MDE. T10. K. 1 row. COR. 000. K. 116 (124, 132, 140, 148, 160) rows. (adjust.)

Shape Armholes Cast off 5 (6, 7, 8, 9, 10) sts. at beg. of the next 2 rows. 110 (116, 122, 128, 134, 140) sts. 000. *

For Raglan Version ff2 each end of every foll. 4th row 17 (18, 19, 20, 21, 22) times to 42 (44, 46, 48, 50, 52) sts. K. 2 rows. Cast off loosely or K. a few rows with scrap yarn and take work off machine.

Set-in and Saddle Sleeve Versions ** ff1 each end of every alt. row 9 (10, 11, 12, 13, 14) times to 92 (96, 100, 104, 108, 112) sts. ** K. to 66 (70, 74, 78, 82, 86) rows for set-in sleeve version, K. to row 54 (58, 62, 66, 70, 74) rows for saddle sleeve version.

Shape Shoulders Cast off 5 (5, 5, 5, 6, 6) sts. at beg. of the next 8 rows. Cast off 5 (6, 7, 8, 5, 6) sts. at beg. of the next 2 rows. 42 (44, 46, 48, 50, 52) sts. Cast off loosely or K. a few rows with scrap yarn and take work off machine for set-in sleeve version. Cast off loosely for saddle sleeve version.

Front Rep. from * to * as on back.

For Raglan crew and turtle neck versions ff2 each end of every 4th row 13 (14, 15, 16, 17, 18) times to 58 (60, 62, 64, 66, 68) sts. fin. COR.

Shape Neck Cast off loosely or thread up and take off machine the centre 20 (22, 24, 26, 28, 30) sts. Push to E pos. the left 19 sts. HCL to 2. Cont. on right 19 N., dec. 3 st. on every foll. row 8 times on neck edge, at same time still ff2 as before on raglan edge every foll. 4th row 4 times more to 3 sts. rem. K. 2 rows and cast off. HCL's to 3. Cont. on left N. at match reversing shapings.

For Set-in and saddle sleeve crew and turtle neck versions Rep. from ** to ** as on back. K. 54 (58, 62, 66, 70, 74) rows.

For Set-in Sleeve Version Cast off loosely or thread up and take off machine the centre 24 (26, 28, 30, 32, 34) sts. Push to E pos. the left 34 (35, 36, 37, 38, 39) N. HCL to 2. Cont. on right N. dec. 1 st. every row 9 times on neck edge. 25 (26, 27, 28, 29, 30) sts. K. to 66 (70, 74, 78, 82, 86) rows fin. COR.

Shape Shoulder Cast off 5 (5, 5, 5, 6, 6) sts. at beg. of the next row and at the same edge every alt. row 3 times more fin. COR. Cast off rem. 5 (6, 7, 8, 5, 6) sts. HCL's to 3. Cont. on left N. to match reversing shapings.

For Saddle Sleeve Version Cast off loosely or thread up and take off machine the centre 24 (26, 28, 30, 32, 34) sts. Push to E pos. the left 34 (35, 36, 37, 38, 39) N. HCL to 1. Cont. on right N. dec. 1 st. every row 9 times on neck edge, at same time casting off 5 (5, 5, 5, 6, 6) sts. at beg. of the next row and at the same edge every alt. row 3 times more fin. COR. Cast off rem. 5 (6, 7, 8, 5, 6) sts. HCL's to 3. Cont. on left N. to match reversing shapings.

For Raglan V Neck Version Push left 55 (58, 61, 64, 67, 70) N. to E pos. HCL to 1. ff2 every foll. 4th row on neck edge twice, then ff1 every 4th row on neck edge 13 (14, 15, 16, 17, 18) times, at same time ff2 every foll. 4th row on raglan edge 17 (18, 19, 20, 21, 22) times to 4 sts. rem. K. 2 rows and cast off. HCL's to 3. Cont. on left N. to match reversing shapings.

For Set-in and Saddle Sleeve V Neck Versions Push left 55 (58, 61, 64, 67, 70) sts. to E pos. HCL to 1. Cont. on right N. ff1 every alt. row on armhole edge 9 (10, 11, 12, 13, 14) times, at same time ff2 every foll. 4th row on neck edge 9 times. 28 (30, 32, 34, 36, 38) sts. ff1 every foll. 4th row on neck edge 3 (4, 5, 6, 7, 8) times. 25 (26, 27, 28, 29, 30) sts. K. to 66 (70, 74, 78, 82, 86) rows for set-in sleeve version. COR. K. to 54 (58, 62, 66, 70, 74) rows for saddle sleeve version. COR.

Shape Shoulder Cast off 5 (5, 5, 5, 6, 6) sts. at beg. of the next row and at this same edge every alt. row 3 times more fin. COR. Cast off rem. 5 (6, 7, 8, 5, 6) sts. HCL to 3. Cont. on left sts. to match reversing shapings.

Sleeves T7. COBH. 52 (54, 56, 58, 60, 62) sts. K. 20 rows. T10. K. 1 row for foldline. T7. K. 20 rows. MDE. T10. K. 1 row. COR. 000. Inc. 1 st. each end of every foll. 4th (4th, 4th, 3rd, 3rd, 3rd) row 10 (13, 17, 14, 17, 21) times to 72 (80, 90, 86, 94, 104) sts. Inc. 1 st. each end of every foll. 6th (6th, 5th, 5th, 4th, 4th) row to 10 (10, 9, 15, 15, 14) times to 92 (100, 108, 116, 124, 132) sts. K. to 124 (128, 132, 136, 140, 144) rows. (adjust.)

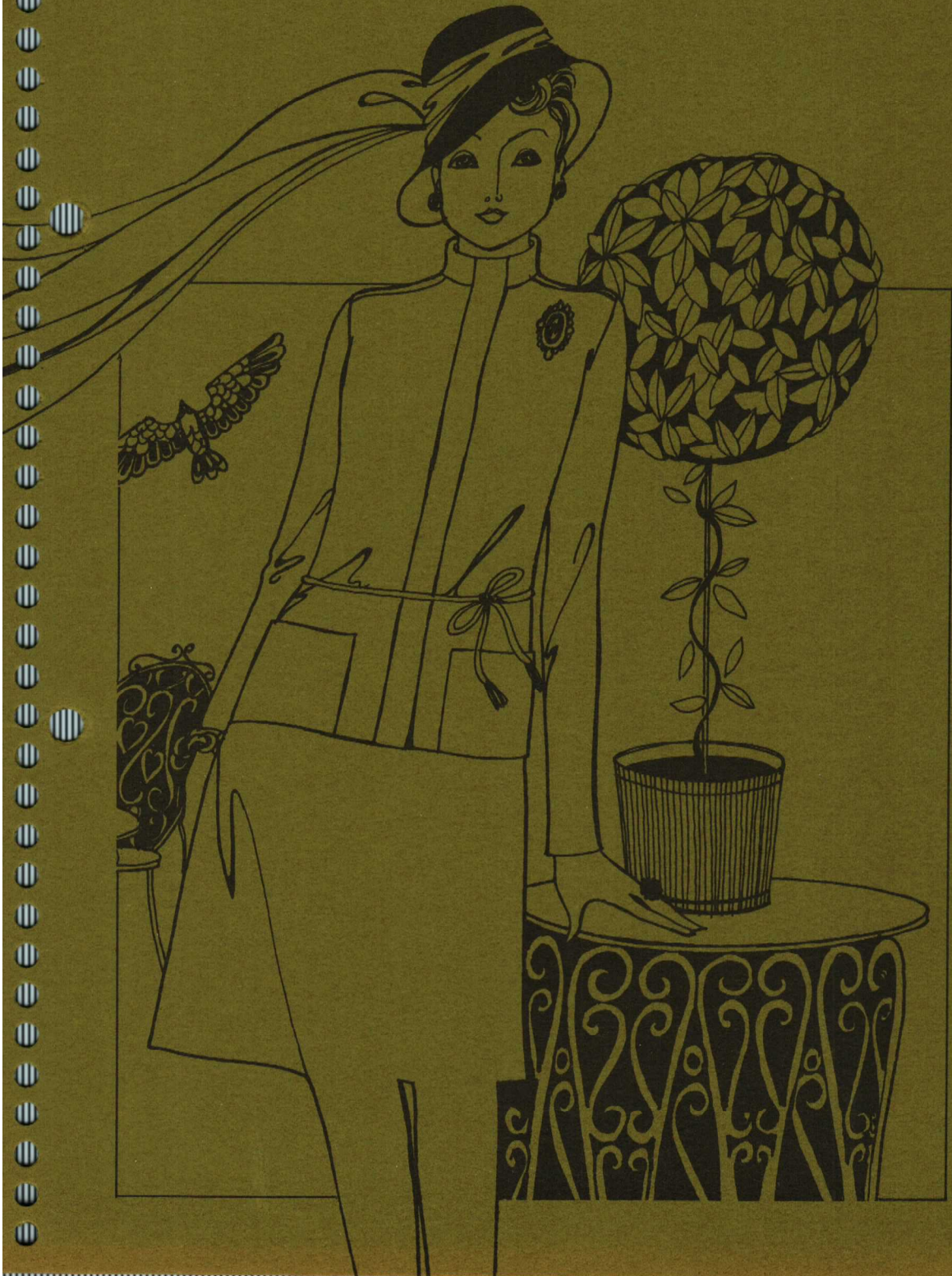
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- Shape Armholes** Cast off 5 (6, 7, 8, 9, 10) sts. at beg. of the next 2 rows. 82 (88, 94, 100, 106, 112) sts. 000.
- For Raglan Sleeve Top** ff2 each end of every foll. 4th row 15 (16, 17, 18, 19, 20) times to 22 (24, 26, 28, 30, 32) sts. ff3 each end of every foll. 4th row twice to 10 (12, 14, 16, 18, 20) sts. K. 2 rows. Cast off loosely or K. a few rows with scrap yarn and take work off machine.
- For Set-in and Saddle Sleeve Top** ff2 each end of every foll. 4th row 9 (10, 11, 12, 13, 14) times. 46 (48, 50, 52, 54, 56) sts. K. 2 rows. Cast off 3 (3, 3, 4, 4, 4) sts. at beg. of the next 6 rows. 28 (30, 32, 28, 30, 32) sts. Cast off 4 (5, 6, 4, 5, 6) sts. at beg. of the next 2 rows. (20 sts.)
- For Set-in Sleeve** Cast off.
- For Saddle Sleeve** K. 30 (32, 34, 36, 38, 40) rows for left sleeve, K. 29 (31, 33, 35, 37, 39) rows for right sleeve.
- Shape Side Neck** Cast off 10 sts. at beg. of the next row. (10 sts.)
- For Back Neck** K. 26 (28, 30, 32, 24, 26) rows. Cast off.
- Crew and Turtle Necks for Raglan Sleeve Version**
* T7. COBH. 102 (106, 110, 114, 118, 122) sts. K. 16 rows for crew neck, 20 rows for turtle neck. T10. K. 1 row for foldline. K. 16 rows for crew neck, 20 rows for turtle neck. MDE. * Press sweater pieces, join raglan seams except the left back raglan seam. With right side of work facing machine and working from right edge of N. place back neck to first 40 N. at same time dec. evenly along back neck 2 (4, 6, 8, 10, 12) sts., place sleeve top to next 9 (10, 11, 12, 13, 14) N. at same time dec. 1 (2, 3, 4, 5, 6) sts. evenly along sleeve top, side neck to next 12 N., front neck to next 20 (22, 24, 26, 28, 30) N., place rest of neck area to rem. N. to correspond. Cast off band and neck area together loosely.
- Crew and Turtle Neck for Set-in Sleeve Version** Rep. from * to * as crew and turtle neck on raglan sleeve version. Press sweater pieces, join right shoulder seam. With right side of work facing machine and working from right edge of N. place back neck to first 42 (44, 46, 48, 50, 52) N., side neck to next 18 N., front neck to next 24 (26, 28, 30, 32, 24) N., place rest of neck area to rem. N. to correspond. Cast off band and neck area together loosely.
- Crew and Turtle Neck for Saddle Sleeve Version** Rep. from * to * as on crew and turtle neck on raglan sleeve version. ** Press sweater pieces, join cast off edges of back neck saddle. Sew back saddle edge to shoulder and neck of sweater back. Sew front saddles to front shoulder seams. ** With right side of work facing machine and working from right edge of N., place back neck to first 42 (44, 46, 48, 50, 52) N., right saddle cast off side neck to next 10 N., cast off band and neck area loosely together to this point, front side neck to next 8 N. front neck to next 24 (26, 28, 30, 32, 24) N., cast off to this point, place rest of neck area to rem. N. to correspond and cast off loosely to end.
- V Neck for Raglan Sleeve Version** * T7. COBH. 154 (162, 170, 178, 186, 194) sts. K. 16 rows at same time ff2 each end of every alt. row to 122 (130, 138, 146, 154, 162) sts. T10. K. 1 row for foldline. T7. K. 16 rows at same time inc. 1 st. each end of every row back to cast on number of sts. MDE. Press sweater pieces, join raglan seams. With right side of work facing machine and working from right edge of N. place left neck edge from V point to left raglan seam, to first 48 (51, 54, 57, 60, 63) N., place left sleeve to next 9 (10, 11, 12, 13, 14) N. at same time dec. 1 (2, 3, 4, 5, 6) sts. evenly along sleeve top, cast off band and neck area loosely together to this point, place back neck to next 40 N. at same time dec. evenly along back neck 2 (4, 6, 8, 10, 12) sts., cast off to this point, place rest of neck area to rem. N. to correspond and cast off loosely to end.
- V Neck for Set-in Sleeve Version** Rep. from * to * as on V neck for raglan version. Press sweater pieces, join shoulder seams. With right side of work facing machine and working from right edge of N. place left neck edge from V point to shoulder seam to first 56 (59, 62, 65, 68, 71) N., cast off band and neck area together loosely to this point, place back neck to next 42 (44, 46, 48, 50, 52) N., cast off to this point, place rest of neck area to rem. N. to correspond and cast off loosely to end.

V Neck for Saddle Sleeve Version Rep. from * to * as on raglan version. Rep. from ** to ** as for crew and turtle neck for saddle sleeve version. With right side of work facing machine and working from right edge of N. place left neck edge from V point to shoulder (including cast off side neck of saddle), to first 56 (59, 62, 65, 68, 71) N., cast off band and neck together loosely to this point, place back neck to next 42 (44, 46, 48, 50, 52) N., cast off to this point, place rest of neck area to rem. N. to correspond and cast off loosely to end.

To Complete For raglan sleeve crew and turtle neck versions, join left back raglan and neck band seams. Join sleeve and side seams. For set-in sleeve crew neck version, join left shoulder and neckband seams. Sew in sleeves. Join sleeve and side seams. For saddle sleeve crew and turtle neck version, join neckband seam. Sew rem. of sleeves into armholes. Join sleeve and side seams. For raglan sleeve V neck version, join neckband at V point. Join sleeve and side seams. For set-in sleeve V neck version, join neckband at V point. Sew in sleeves. Join sleeve and side seams. For saddle sleeve V neck version, join neckband at V point. Sew in rem. of sleeves to armholes. Join sleeve and side seams. **Press all seams.**





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Hints on Pressing by Neville Rayner

Knitwear should never be pressed on an ironing board because the surface is too hard and is certainly not a large enough area to press out garment pieces in one piece. This hard surface could also crush the fabric during the pressing process.

There are two surfaces which are ideal for pressing knitwear. The first and the best is foam rubber and should be between 1½ to 2 inches in thickness. The actual pressing area will vary according to individual needs. For a knitter who produces mostly sweaters and cardigans a pressing area of 28 inches in width by 30 inches in length would be sufficient. For longer garments i.e. coats and dresses, a pressing area of 28 inches in width by 50 inches in length is ideal. For evening dresses a 60 inch length area would be required.

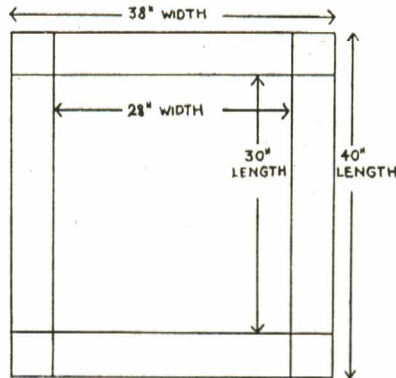
These measurements for pressing areas are only suggestions and can be adjusted to individual requirements. These foam pads can be laid for use on any suitably sized table and can be rolled, tied with string, and put away until needed again.

The second surface is composed of several layers of blanket or thick felt which must be covered with a piece of white cotton or sheeting.

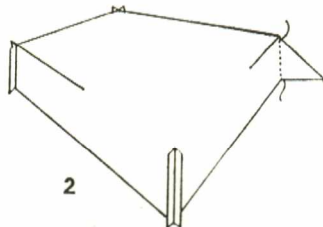
For the knitter who produces a great deal of knitwear a more permanent pressing area can be produced by using the following three main items.

Decide which pressing area measurement will be most useful for the range of work you produce. For the sake of argument we will refer to an area of 28 inches by 30 inches. Purchase some foam rubber which is from 1½ to 2 inches in thickness, and some hardboard. Both of these materials must be to the same pressing area measurement, i.e. 28 inches by 30 inches. A fitted cotton cover is now required which must measure 10 inches more than the pressing area in width and length, i.e. 38 inches by 40 inches.

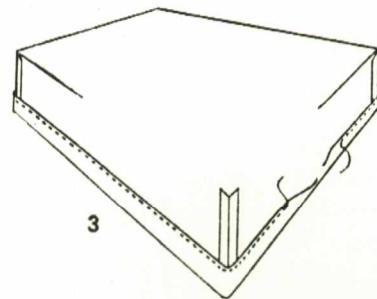
This cotton cover can be made from an old sheet or calico. If the calico is new, wash it thoroughly to remove the dressing which will stick to your iron, pressing cloth and knitting. Allow for the fact that some shrinking will take place in this washing.



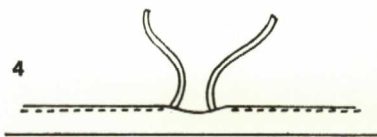
1 To make the cover for this pressing pad mark the pressing area on the cotton, at the same time allowing for a 5 inch border. Mark from the pressing area corners to the outer edges. See fig. 1.



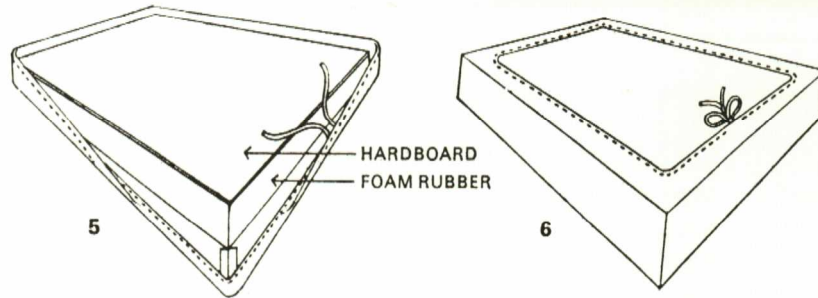
2 Place these marked corners next to each other and stitch together. Cut away the corner leaving a ¼ inch seam. See fig. 2.



3 Turn in and stitch down the outer edge to the inside making a ¼ inch slot around the outer edge to the inside making a ¼ inch slot around the edge, leaving an opening of about 2 inches. See fig. 3.



4 Thread ½ inch tape through this slot leaving the ends coming out of the 2 inch opening. See fig. 4.



Place this cover on a flat surface with the underside uppermost. Place the foam rubber onto this cover, then place the hardboard onto the foam rubber. See fig. 5.

Draw up the tape tightly and tie into a bow. See fig. 6.

Your pressing area is now complete, it can be easily dismantled for washing the cover, and possibly in due course, the foam rubber, depending on the amount of use.

Foam rubber is the most hygienic material to use, though several layers of blanket could be used instead for this pressing pad. The draw back from using blankets is that they take longer to 'dry out' and can, in time, smell of mildew unless washed frequently.

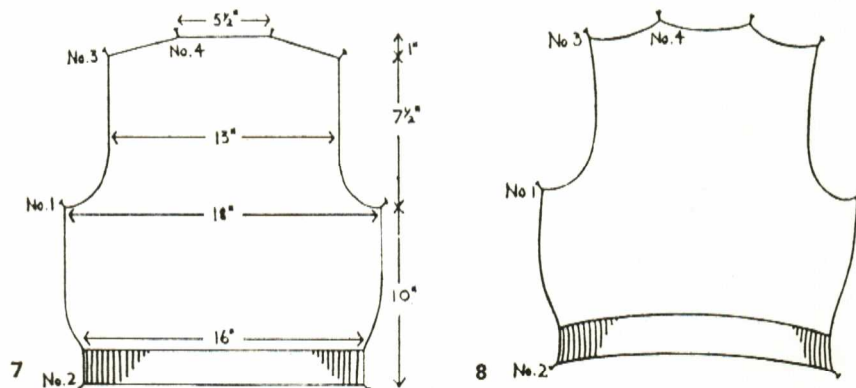
To make blocking out an easier process the cotton cover could be stitched with a machine, using contrast colour fast cotton, into 1 inch squares. You may be fortunate enough to purchase a fabric which has been printed or woven into 1 inch squares or checks, but first enquire as to whether the dyes are colour fast as they could stain your knitting.

The following pressing equipment is also required.

A thermostatically controlled iron with heat settings for various yarns. Plenty of rust proof pins, never use rusty pins or they will stain your knitting. An inch tape measure. A pressing cloth sufficient in size to cover the pieces of knitting to be pressed. The best material is white cotton and must be lightweight. Muslin is ideal which must have all its dressing removed before use. Thicker cotton fabrics are unsuitable as they hold too much moisture. This pressing cloth must be washed frequently as a dirty cloth can discolour white yarns.

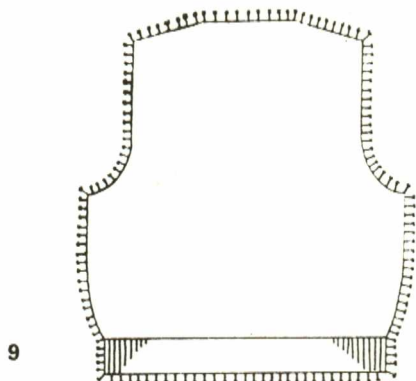
Blocking out refers to pinning out to the correct measurements the various garment pieces. Working from fig. 7 which is for a classic jumper with rib hem, place pins at the widest point at underarm, No. 1, then two pins from underarm to hem allowing the ribbing to 'pull' the work in at this point, No. 2. Measure the armhole depth and place pins for the shoulder points, at same time allowing for the armhole shaping, No. 3. Place two pins for back neck, allowing for the shoulder shaping, No. 4.

Always press all garment pieces with the wrong side uppermost unless otherwise stated in the instructions, i.e. Angora, (See PRESSING.)



Place the jumper back onto the pressing area and pin down the points just mentioned with the pins that are already in place. See fig. 8.

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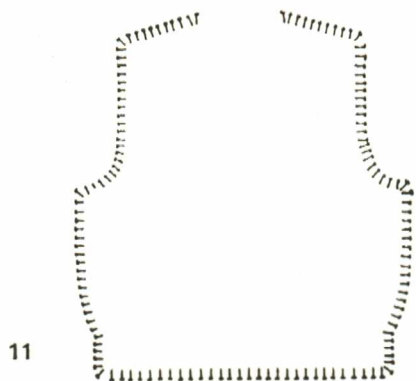
9

The basic shape has now been positioned. To complete the blocking process place pins along all edges and as near to the edge as possible at $\frac{1}{2}$ inch intervals. See fig. 9.

10



The pins must be placed into the pad as flat as possible to the surface, this will prevent the pressing cloth getting caught and the pins being broken by the iron. See fig. 10.

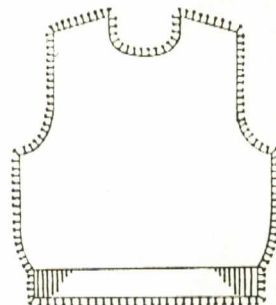


11

It is not necessary to push the pins far into the pad, but they must be placed firmly and sufficiently well to secure the knitting.

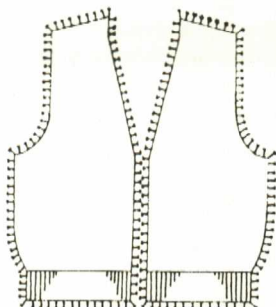
When the back has been pressed and to save re-measuring take out all the pins, one at a time, releasing the knitting from each pin, and then placing the pin back into the pad in the same position as before. Take off the jumper back. The area for the front is now positioned by the pins left in the pad. See fig. 11.

You can now pin out the front to match the back, the only difference being the front neck shaping. The front neck points should be placed at position No. 4 on fig. 7. See fig. 12.



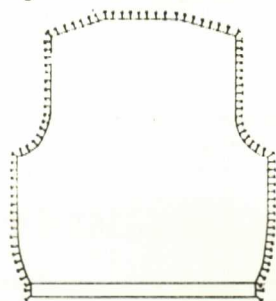
12

The same method of working can be applied to the sleeves. Block out and press the first sleeve, take out the pins one at a time, releasing the knitting, and place the pins back into the pad in the same position as before.



13

Block out second sleeve and press. For blocking out cardigan fronts, which always have the same measurements as the cardigan back on side, armhole and shoulder edges, replace the pins into the pad after pressing the back. The fronts can now be blocked out and pressed together, at the same time allowing for the front band width. See fig. 13.



14

This process can either make or mar the knitting you have produced. The following instructions, if read carefully, should help you to produce good results.

Never press the ribbing i.e. double ribbing produced on a single bed machine or ribbing produced with the ribber attachment, on hems, cuffs, neck and frontbands unless otherwise stated in the instructions. Double hems, cuffs, neck and front bands knitted over every needle are invariably pressed at the same time as the main part of the garment. When a design has this type of edging do not put pins into these double edgings as this will produce a 'mark' which is difficult to erase. See fig. 14.

(*Never press too heavily*) unless otherwise stated. To press too heavily on a fairly hard surface, i.e. several layers of blanket, could flatten the fabric and possibly destroy the patterning, especially in the case of synthetic yarns or yarns that have synthetic content. To press too heavily on a soft pliable surface, i.e. foam rubber, will cause the iron to make indentations on the fabric and would certainly have the same effect on synthetic yarns as those stated for a fairly hard surface.

The best method is to knit a test piece, block it out and press it to test the results before pressing the actual garment.

Below are listed the various yarns in general use today and the various pressing methods applicable to them. Always set the iron to the correct yarn setting. Never use the steam setting on the iron as this is invariably the incorrect heat for most yarns.

Wool

Press on the *wrong* side with iron at wool setting over a damp cloth. Plain fabrics, i.e. stocking stitch, can be pressed *firmly* but not heavily. Textured, rib and cable fabrics should be pressed *very lightly*. Fair Isle and multi-coloured fabrics, because of their thickness, should be pressed *lightly* with a *wet* cloth.

Cotton & Silk

Press on the *wrong* side *very lightly* with iron at cotton or silk setting over a wet cloth. Re-wet the cloth if it dries out during the pressing process. The pressing cloth should be slightly wetter for these yarns than for wool.

Synthetics

Press on the *wrong side very lightly* with iron at synthetic setting over a dry cloth. A slightly damp cloth can be used if a small percentage of synthetic yarn is present in a wool or cotton mixture and the iron can be set to a slightly warmer setting.

If synthetic yarns are pressed heavily with too warm an iron over a damp cloth any amount of washing will not eliminate the flat looking results. It must be remembered that too much heat will part-melt the yarn and will result in this flat look which is permanent.

Angora

Block out with the *right side uppermost*, set iron to wool setting. Angora is not actually pressed but is steamed by suspending the pressing cloth,

Points to Remember

1. Always check the yarn wrappings for fibre contents. Many so called wools marketed today contain a certain percentage of man-made fibres, always check these fibres before pressing.
2. Always knit a test piece or pieces in the yarn you have used for your garment. Test press them before pressing the actual garment. If the results are not satisfactory on pressing the first sample consider carefully the following points and adjust accordingly.
 - (a) Check yarn content or contents.
 - (b) Check pressing pressure and adjust accordingly.
 - (c) Pressing cloth too dry or not damp or wet enough.
 - (d) Perhaps you have pressed the sample for too long so that the pressing cloth dried out too soon, or the cloth was too wet. Adjust accordingly.
3. *Never* remove the knitting from the pad until it is absolutely dry, to do so would distort the fabric with handling. Always lay the pressed pieces flat and try to avoid folding them.
4. Always press the front and back on set-in sleeve designs before applying neck or front bands. Press the front, back and sleeves and sew in the sleeves on raglan designs before applying neck and front bands.
5. Always press pockets to correct size before sewing them to the garment.

which is wet, and the iron together about $\frac{1}{4}$ inch above the fabric itself. The steam formed by this method is sufficient to 'set' the fabric. In the case of angora only, the steam setting on the iron could be used, providing the iron does not come into contact with the fabric and is held at least $\frac{1}{4}$ inch above the knitting.

Mohair

Press *firmly on the wrong side* with iron at wool setting over a damp cloth for plain fabrics, i.e. stocking stitch. For rib fabrics press *very lightly*.

Cashmere

Press *very lightly* on the *wrong* side with iron at wool setting over a damp cloth. This method applies to any stitch patterning and any yarn that is mixed with cashmere.

Knop, Tweed, Boucle & Textured Yarns

These yarns should always be pressed on the *wrong side very lightly* on a soft pliable surface, whatever the yarn content. The iron should be set to the correct yarn content heat and a damp cloth used. The steam formed by just touching the pressing cloth with the iron will be sufficient to 'set' the fabric without crushing the yarn texture. To press any of these yarns *incorrectly* could destroy their textured character and in the case of synthetics, even washing will not revive the fabric.

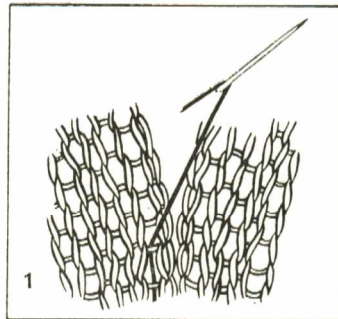
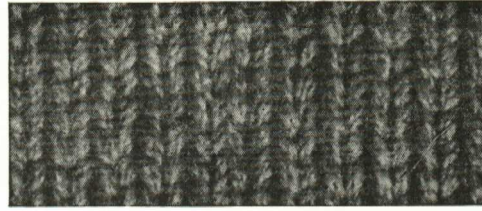
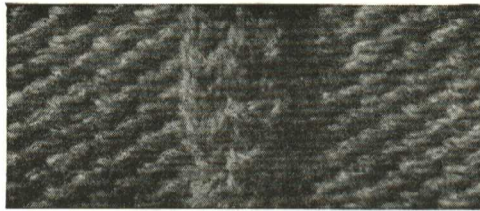
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Correct Sewing Up

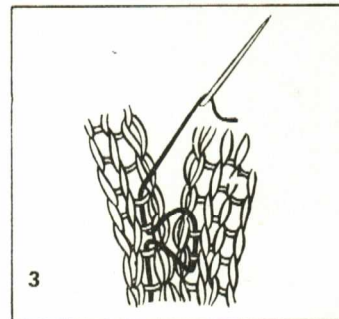
Many well knitted garments are spoiled by poor sewing up when assembling the pieces.

The method illustrated is ideal for jumpers, cardigans and skirt seams, and gives an invisible seam.

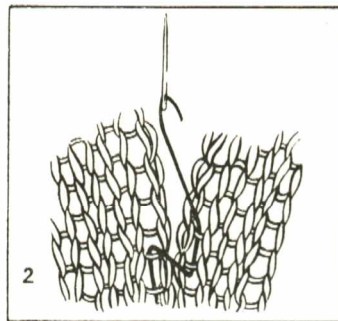
Be sure to keep the right side of both pieces upper-most and always pass the needle between the first and second stitches on either piece, follow the steps illustrated below.



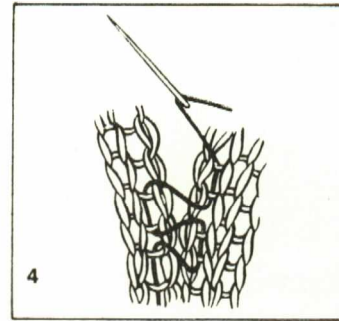
1. Left Hand Piece—Pass needle under threads of 1st and 2nd rows, bringing needle through to upper side.



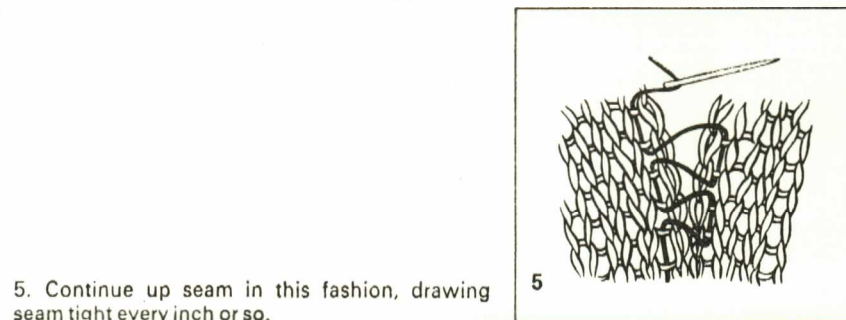
3. Left Hand Side—Pass needle under threads of 3rd and 4th rows, bringing needle through to upper side.



2. Right Hand Piece—Pass needle under threads of 2nd and 3rd rows, bringing needle through to upper side.



4. Right Hand Side—Pass needle under threads of 4th and 5th rows, bringing needle through to upper side.



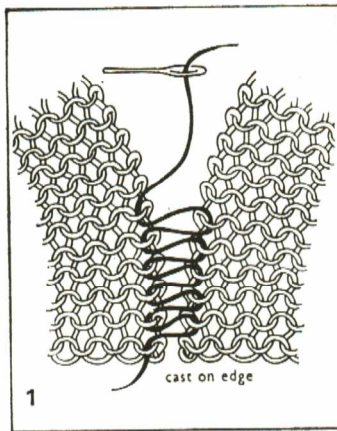
5. Continue up seam in this fashion, drawing seam tight every inch or so.

Making Up Knitwear by Neville Rayner

The correct way of making-up knitted pieces is of vital importance to the final appearance of the finished article. Many knitters, having produced the pieces for assembly, spoil the whole effect by not paying sufficient attention to the various making-up processes related to knitting. Good results can only be achieved by practice, and for each of the following processes, instructions have been included for knitting samples which can then be sewn together.

Knit these practice samples on tension 8 using oddments of 4-ply wool. Block out and press these samples on the wrong side with a warm iron over a damp cloth before sewing them together. After the sewing is completed, press the seams on the wrong side with a warm iron over a damp cloth.

The joining of one piece of knitting to another is *always* carried out with the right side of the knitting upwards, i.e. the right side of the fabric faces you throughout as you are working. For these samples it may help to use a 4-ply wool in a contrast colour for sewing up. *Always* use a needle specifically made for sewing up knitting.



SEAMS

Stocking Stitch Seam

(with plain side as right side)

This seam is used for side, sleeve and raglan seams. For Fig. 1 you require two pieces knitted as follows. Tension 8. Cast on by hand over every needle 18 stitches, knit 44 rows and cast off. Work another piece the same. Block out and press these pieces on wrong side to measure $2\frac{1}{2}$ inches by 5 inches. Thread up needle with about 14 inches of contrast wool. Working between the 1st and 2nd stitches throughout on each piece, commence as follows.

1. On the left piece pass the needle under the thread of the 1st row, at the same time leaving about $3\frac{1}{2}$ inches of sewing thread free at the cast on edge for sewing into the back of the seam.
2. On the right piece pass the needle under the thread of the 1st row.
3. On the left piece pass the needle under the thread of the 2nd row.
4. On the right piece pass the needle under the threads of the 2nd and 3rd rows.
5. On the left piece pass the needle under the threads of the 3rd and 4th rows.
6. Pass the needle under the next 2 threads on the right and then the left pieces.

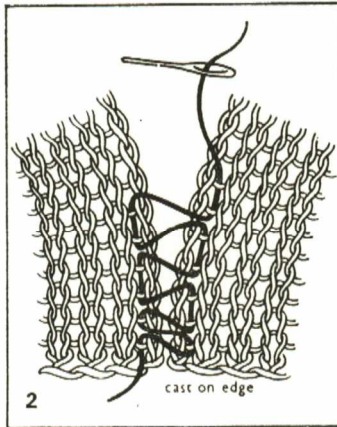
Continue along the seam in this way, passing the needle under the next 2 threads on each piece at the same time pulling the sewing thread tight every inch or so.

Note

The seam must have the same elasticity as the knitted pieces otherwise the sewing thread can "pull" up the knitting and can eventually break during wear. When pulling the sewing thread gather up the seam for the last inch of sewing, then pull this last inch out again, lengthwise, to obtain the desired elasticity.

The sewing up wool should not show on the right side, even if you are using a contrast colour. Pull the seams apart to check that the 2nd stitches on each piece are evenly apart and next to each other along the seam. Check the sewing wool and see that it is passing evenly backwards and forwards between each piece.

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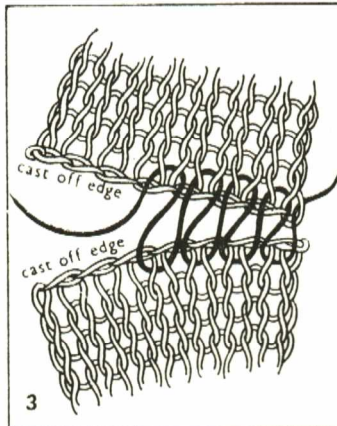
Stocking Stitch Seam

(with purl side as right side)

This seam can also be used for side, sleeve and raglan seams. For Fig. 2 knit two pieces as for Fig.1 and press as before on the wrong side, i.e. the plain side. Working between the 1st and 2nd stitches throughout on each piece, commence as follows.

1. On the left piece pass the needle under the thread of the 1st row, at same time leaving about $3\frac{1}{2}$ inches of sewing thread free at the cast on edge for sewing into the back of the seam.
2. On the right piece pass the needle under the thread of the 1st row.
3. On the left piece pass the needle under the thread of the 2nd row.
4. On the right piece pass the needle under the thread of the 2nd row.
5. Pass the needle under the thread of the next row on the left and then the right pieces.

Continue along the seam in this way, passing the needle under the next thread on each piece, at same time pulling up the sewing thread, then pulling it out again to achieve elasticity as on the first sample. The contrast sewing wool will show slightly on this seam. You can pass the needle under two threads at a time but this does not give such a neat appearance. Passing under two threads at a time is only suitable for textured yarns.



Shoulder Seam

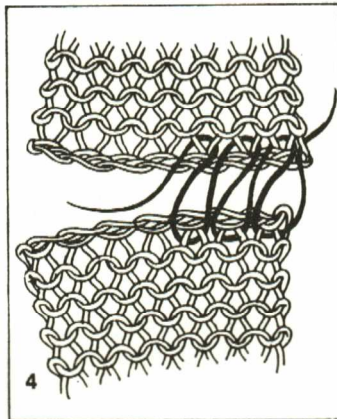
(with plain side as right side)

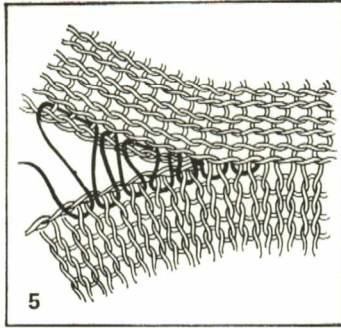
This seam is for garments with set in sleeves. For Fig. 3 you require two pieces knitted as follows. Tension 8. Cast on by hand over every needle 36 stitches, knit 22 rows and cast off. Work another piece the same. Block out and press these pieces on wrong side to measure $2\frac{1}{2}$ inches by 5 inches. Thread up needle with about 14 inches of contrast wool. Working between the cast off edge and the last row of knitting commence as follows.

1. On the upper piece pass the needle through the 1st half of the 1st stitch, at same time leaving about $3\frac{1}{2}$ inches of sewing thread free at edge of sample for sewing into the back of the seam.
2. On the lower piece pass the needle under the 2nd half of the 1st stitch and the 1st half of the 2nd stitch.
3. On the upper piece pass the needle under the 2nd half of the 1st stitch and the 1st half of the 2nd stitch.
4. On the lower piece pass the needle under the 2nd half of the 2nd stitch and the 1st half of the 3rd stitch.
5. On the upper piece pass the needle under the 2nd half of the 2nd stitch and the 1st half of the 3rd stitch.

Continue in this way passing the needle under the two halves of adjacent stitches, at the same time drawing up the sewing thread and pulling it out again to achieve elasticity after every $\frac{1}{4}$ inch or so.

Try working this seam with the purl side uppermost. See Fig. 4, which has the same basic method of sewing.



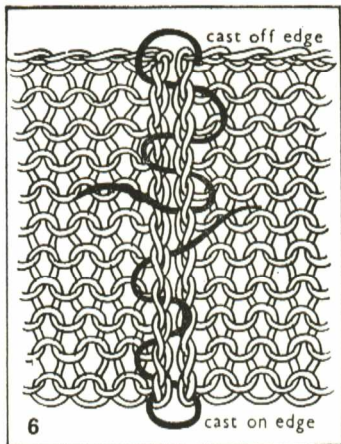


Set in Sleeve or Saddle Shoulder Seam

(with plain side as right side)

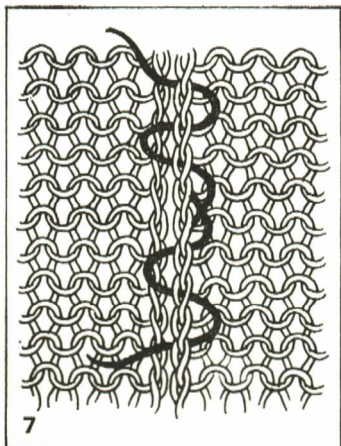
This seam in Fig. 5 is for joining two pieces of knitting that are placed in such a way that the formation of the knitted pieces are running in opposite directions to each other.

For the upper piece knit one sample as given in Fig. 1 and for the lower piece knit one sample as given in Fig. 3. Block out and press both pieces as before to the same measurements. For the sewing up of this seam work as follows. On the lower piece work exactly the same as given in Fig. 3, sewing between the cast off edge and the last row of knitting. On the upper piece work the same as given in Fig. 1, except that as there are invariably more rows than stitches to the inch it will be necessary to pass the needle under one, two or three rows of knitting between the 1st and 2nd stitches in order to "ease" in the rows of the upper piece to the stitches of the lower piece. Pull up and stretch out the sewing thread every inch or so as before. The cast off edge of the lower piece measures the same as the edge of the upper piece. Both pieces should begin and finish together at the same point, only practice will achieve this. It will help considerably if you pin the two pieces together along the seam before sewing taking out the pins as you work along both edges.



Neatening of Sewing Thread

Fig. 6. With the wrong side of work facing you, place the right side of the pieces together. Oversew once through the loops between the 1st and 2nd stitches at both the cast on and cast off edges and draw up tightly. Now weave in the sewing thread by passing it backwards and forwards under one of the edge stitches (i.e. the 1st edge stitch or the cast off edge which is now forming the seam) for about 1 inch. Draw up thread tightly and cut it off next to the seam. Press seam. This neatening off method applies to all seams whichever side of the knitting is uppermost.



Sewing in Ends

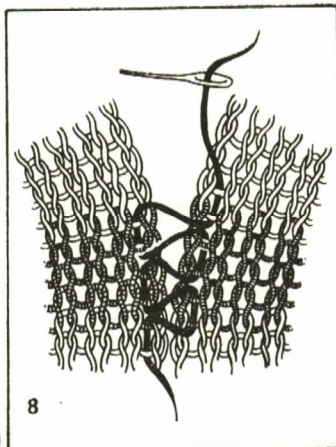
Fig. 7. Tie the two ends together firmly without distorting the edge of the knitting. Thread one end on to a needle. Weave in the thread by passing it backwards and forwards under one of the edge stitches as shown for about 1 inch. Draw up tightly and cut it off next to the seam. Work other thread the same in the opposite direction into the same edge stitch. This sewing in method applies to whichever side of the knitting is uppermost.

Note

Never weave the thread into the garment piece as this can distort the knitting.

Always make a join on the edge of the work, *never* in the middle of a row. The occasional long ends that are left from time to time can be used in the making-up of the garment.

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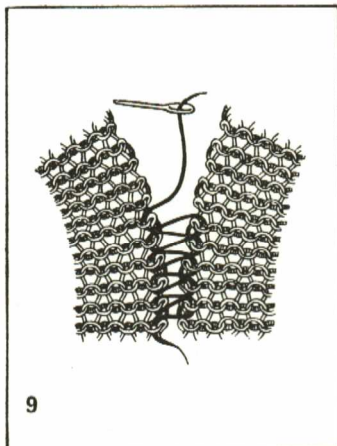


Seam for Stripe Patterns

Fig. 8. It is advisable to commence this seam on a garment well above the welt at the beginning of the first stripe. Work two samples the same as given for the stocking stitch seam in fig. 1 except that you knit a pattern of stripes. Press samples before sewing seam. Working between the first and second stitches on each piece, commence as follows.

- (1) On the left piece pass the needle under the thread of the last row of the first colour and also under the first row of the second colour. Pull sewing thread through at same time leaving sufficient thread to sew up seam in the opposite direction.
- (2) On the right piece pass the needle under the first two threads of the second colour.
- (3) On the left piece pass the needle under the second and third threads of the second colour.
- (4) On the right piece pass the needle under the third and fourth threads of the second colour.

Continue along the seam in this way, passing the needle under the next two threads on each piece at the same time pulling the sewing thread tight every inch or so as in fig. 1 and then pulling the seam lengthwise to achieve elasticity. Work towards the top of the second colour finishing on the right piece by passing the needle under the last two threads of the second colour, and on the left piece by passing the needle under the last thread of the second colour and the first thread of the following colour. Sew remainder of seam always passing the needle under one thread of each colour change at the beginning and ending of each stripe on the left piece only. Sew lower portion of seam to match.



Seam for Weaving Patterns

Knit two samples of nineteen stitches and forty-four rows each using the weaving apparatus and pressing buttons 1, 3, 5 and 7. Weave contrast wool into every row and cast off. Press samples before sewing seam.

The weaving seam, fig. 9, is basically the same as the purl seam in fig. 2. Sew up seam with the main and not the contrast weaving colour. Working between first and second stitches on each piece commence as follows.

- (1) On the left piece pass the needle under the first threads of both the main and weaving colours together.
- (2) On the right piece pass the needle under the first threads of both the main and weaving colours together.
- (3) On the left piece pass the needle under the second threads of both the main and weaving colours together.

Continue along the seam in this way, passing the needle under the threads of both the main and weaving colours, at the same

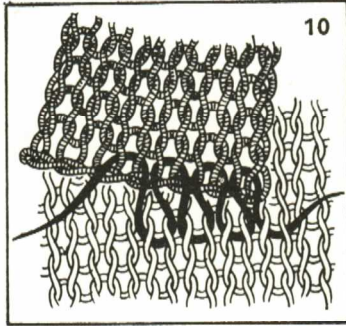
time pulling up seam every inch or so and then pulling the seam lengthwise to achieve elasticity.

On finer knitting pass the needle under two rows at a time under both the main and weaving colours as before.

Note: When working weaving patterns always push to the weaving position the edge needle of the knitting regardless of the pattern sequence. This will then take the weaving colour to the edge of the work.

Increase by pushing to the weaving position the empty edge needle. Decrease by transferring the second stitch to the third needle, move up the edge stitch to fill space, push back to A position the empty edge needle.

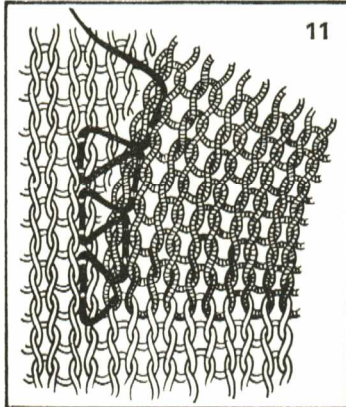
This method of increasing and decreasing will form an easier edge to the knitting for sewing up.



10

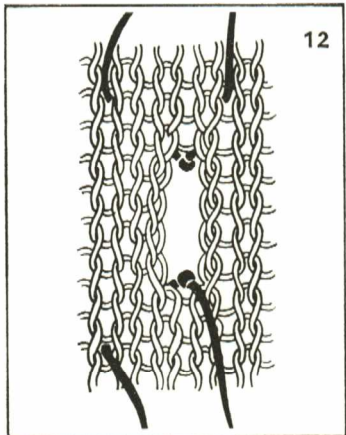
Sewing on Patch Pockets

Always sew on pockets by first working along the lower pocket edge, usually the cast off edge. On fig. 10 the darker knitting represents the pocket patch. Pass the needle through the loops of each half stitch working inside the cast off edge of pocket. On the garment work along a single row throughout, at the same time, working through the loops of each half stitch. Draw up sewing thread but leave sufficient yarn for sewing down each pocket side. Sew down sides as in fig. 11 working between the first and second stitches of the pocket passing needle under two threads at a time. On the garment work through the *centre* of a stitch, again passing the needle under two threads at a time. (The darker knitting again represents the pocket patch.)



11

The pocket top is usually knitted on a tighter tension whether in stocking stitch or rib. Because of this change in knitting tension pass the needle under only *one* thread on the garment but under two threads on the pocket top. For tops which are formed by two layers of stocking stitch sew down the under facing to the edge of the upper pocket top on the inside. Press pocket lightly on right side.



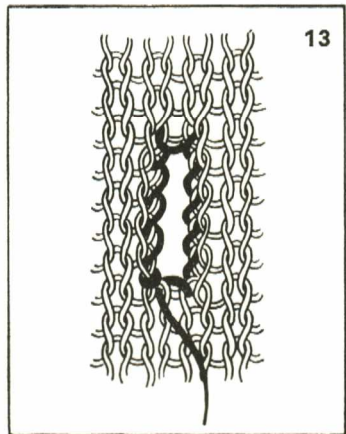
12

Buttonholes

The buttonhole in fig. 12 is knitted by using both B and E needle positions with the holding cam levers on II, thus producing a horizontal buttonhole on the front band, which is usually two layers of fabric. When this buttonhole has been knitted there are four lengths of yarn left free, two at each end of the opening. These lengths are due to the breaking and rejoining of yarn during the course of knitting. Pull these lengths through buttonhole to the right side of the band and tie each pair of lengths together firmly. Thread three of these lengths in at opening ends, passing needle through between both layers of band. Bring the needle and these lengths out again to right side of band about 1 inch away from the opening and cut away. See fig. 12.

Use the fourth length to oversew round the buttonhole working through both layers of band. Secure this fourth length and thread into band and cut away as before. See fig. 13.

Note: Always leave sufficient length when knitting this type of buttonhole for the finishing off.



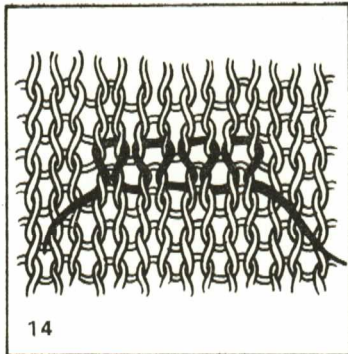
13

Do not pull the oversewing too tight. Test the first buttonhole with one of the buttons you intend to use on the finished garment.

The buttonhole in fig. 14 has been positioned in the fabric by knitting in by hand a length of contrast wool over the needles stated in the instructions.

To neaten buttonhole carefully take out the contrast wool. To form holding edge thread needle with main colour, secure this to one end of the opening. Pass needle through the loops of the stitches on the lower edge and secure holding thread at the opposite end. Pass needle through the loops of the stitches on the upper edge and secure holding thread at end of opening as in fig. 15. Test this opening with the buttons you intend to use before working the next stage.

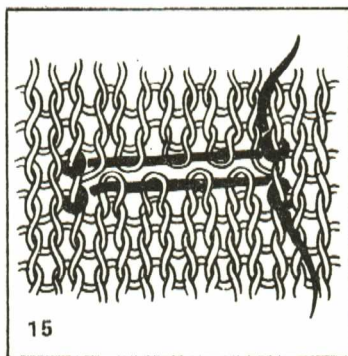
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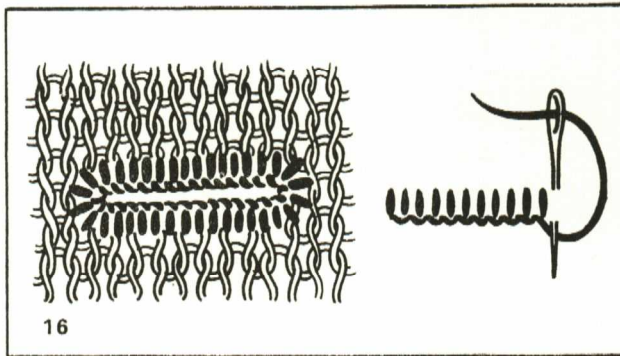
14

Still using main colour buttonhole stitch over the holding edge and into the knitting. See fig. 16. Sew both ends of the neatening threads into the back of the buttonhole stitching on the wrong side of the garment and cut away.

Note: This method of neatening can be applied to one or two layers of knitting. When working this type of buttonhole on two layers of knitting pass the needle through the loops of the stitches on the upper and lower fabrics together when forming the holding edge. Buttonhole stitch through both thicknesses of fabric.

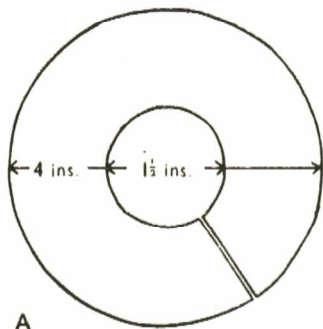


15

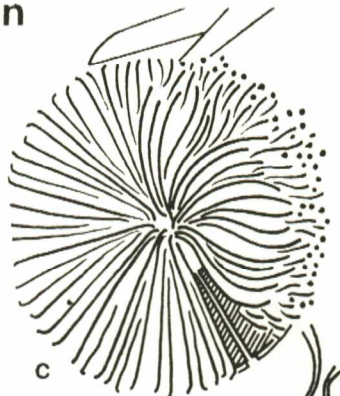


16

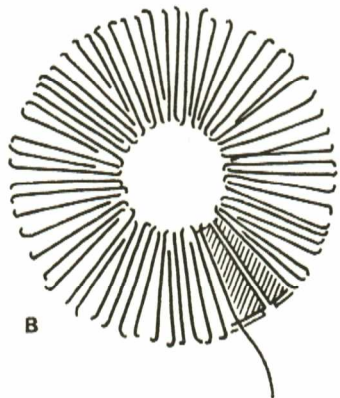
To make a Pompon



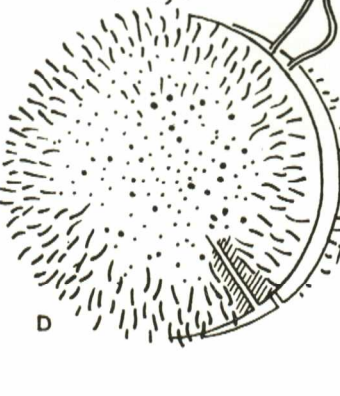
A



C



B



D

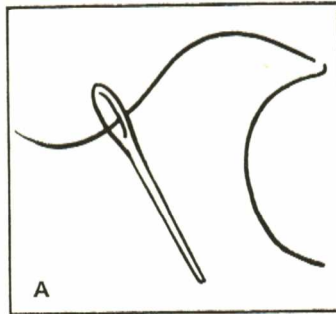
Cut out two circular pieces of card 4 inches in diameter. In the centre cut a circular hole $1\frac{1}{2}$ inches in diameter. Cut through both circles forming an opening. See A.

Place these circles together with the openings opposite each other. Passing each time through this opening wrap wool round both circles working backwards and forwards, until the central hole has been filled, leaving the opening edge free. See B.

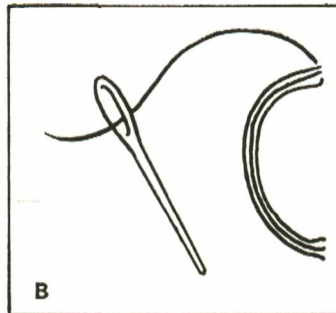
Place scissors between the circles and cut through all the wrapped wool. See C.

Place a length of double wool between the circles and tie the strands of the pompon together firmly. See D. Peel away the circles and arrange the strands into a ball. Trim any odd lengths away to form a smooth surface.

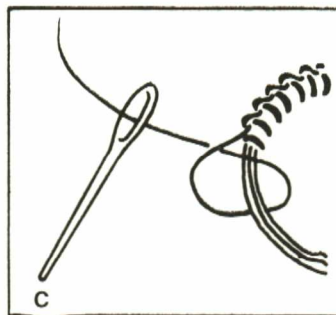
To make a Belt Carrier



Thread up needle with main colour. Leaving an end of about 3 inches pass the needle from wrong to right side of garment through the side seam. Allowing for the belt width or bulk pass the needle through the garment fabric further along the seam catching one stitch only, thus forming a slight 'arch'. See A.

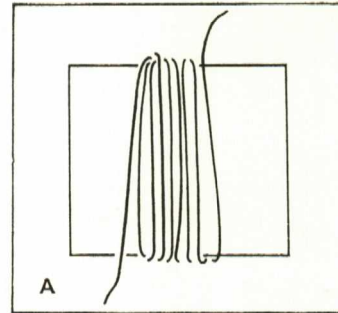


Now pass the needle through the fabric at opposite end of the 'arch' catching one stitch only. Repeat this process until there are three strands forming the 'arch' at same time passing through the stitch previously worked. See B.

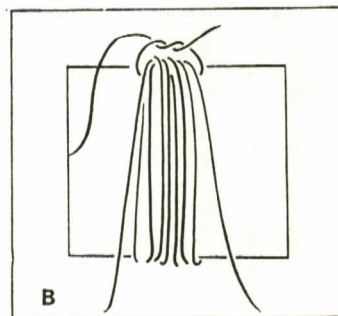


Work buttonhole stitch over the three strands until they are completely covered. Pass needle through seam and secure thread. Thread ends through the seam for about 1 inch and cut away (C).

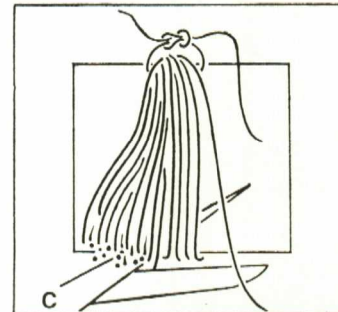
To make a Tassel



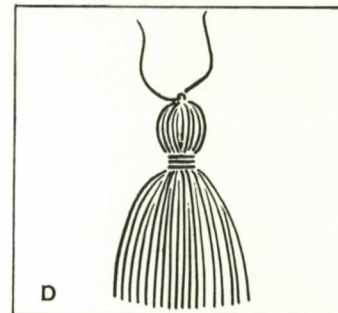
Decide on the length of tassel you require. Cut a square of thick card and wrap wool round it to required thickness. See A.



Pass a length of wool under the strands at the top of the card and tie the strands together firmly. See B.



Pass scissors under the strands at bottom of the card and cut tassel away. See C.

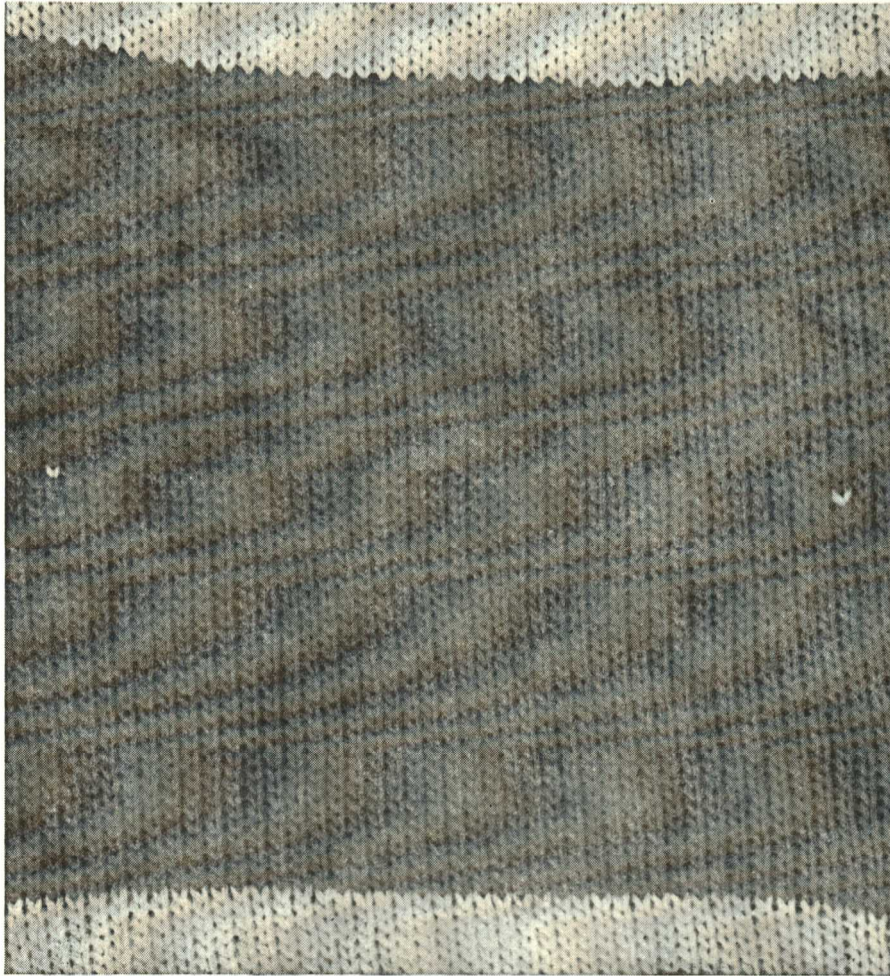


Wrap wool tightly round the tassel about $\frac{1}{2}$ inch from the tied top and secure. Sew in ends. Trim tassel to form smooth end. See D.

Brother home knitting tuition Lesson 5

Garment Assembly

Read the section "Garment Assembly" carefully as this part of knitting is often overlooked and a good piece of knitting is spoilt by the way the garment is sewn together. For this lesson please knit the following samples.



1. A sample piece 60 stitches wide with a marking stitch ten stitches in from either edge on the 30th row. Knit in the following manner:-

Cast on 60 stitches in waste wool. Knit 10 rows. Change to main yarn. Knit 30 rows.

10 stitches in from each edge bring forward 1 needle to 'E' POSITION. With contrast yarn knit these two stitches off onto contrast yarn leaving the contrast yarn on the needle with all the needles in 'B' POSITION.

Knit a further 30 rows. Change to waste wool and knit 10 rows. Take work off machine. Leave to settle for **48 hours**. Now measure as per diagram.

WIDTH WOOL { PLY
 LENGTH { BRAND
 TENSION.....

To get stitches to inch $\frac{40}{\text{width in inches}}$ To get rows to inch $\frac{60}{\text{length in inches}}$

Now please knit the following samples in the same wool and on the same TENSION DIAL setting.

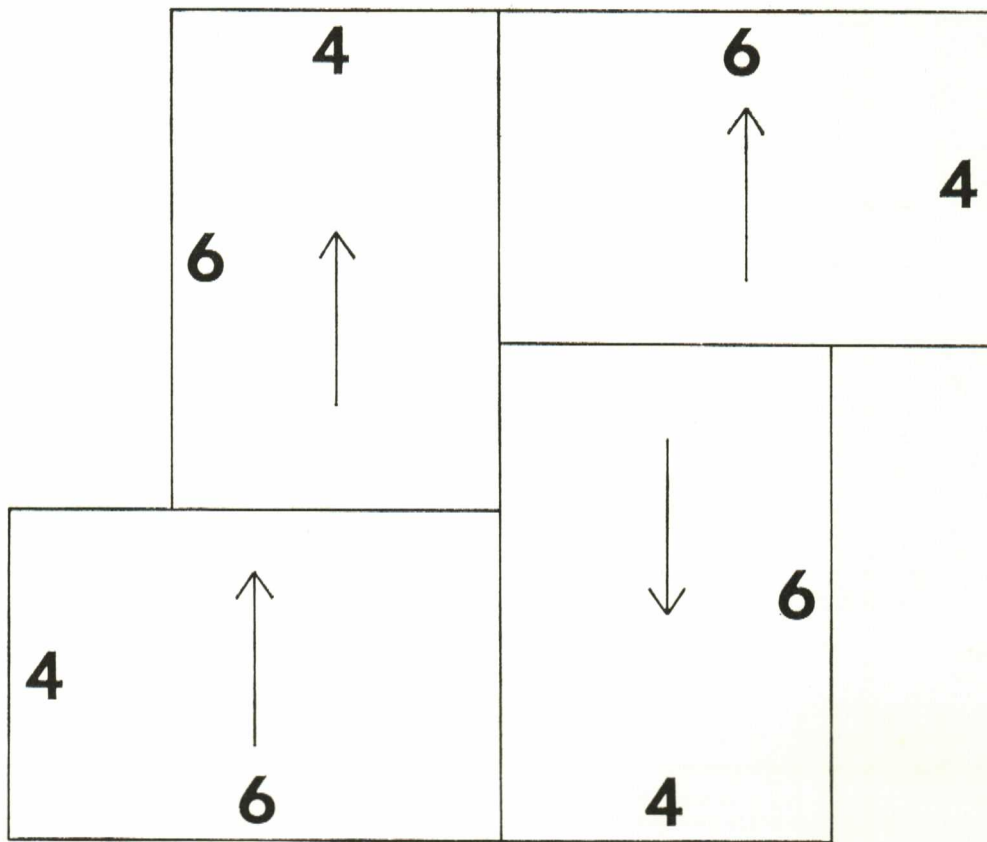
1. 4 inches wide by 6 inches long (2 pieces).
2. 6 inches wide by 4 inches long (2 pieces).

This is not difficult.

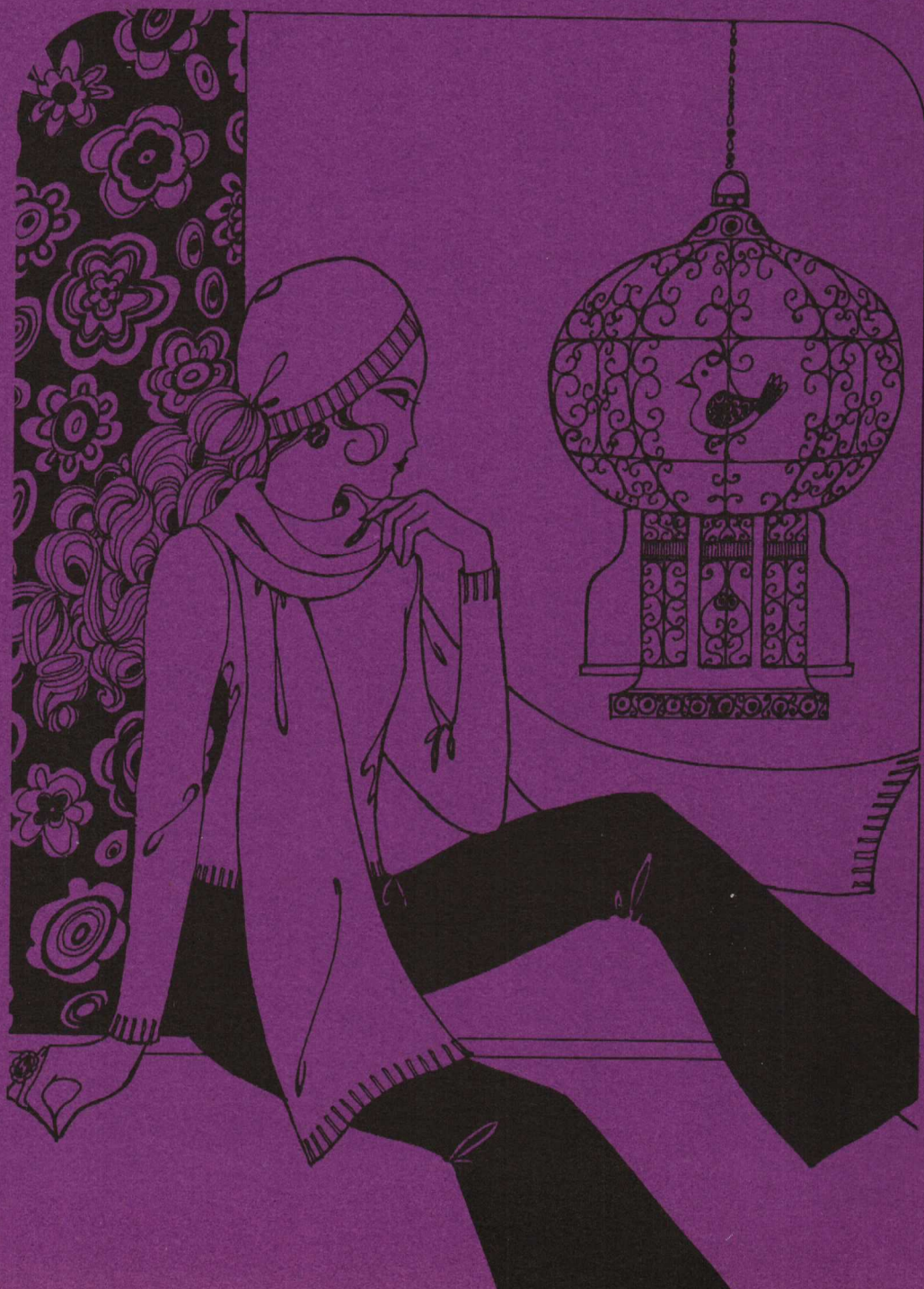
To do No. 1 you want a sample 4" wide. Therefore take the number of stitches to the inch from your sample piece and multiply by 4. The answer is the number of stitches you must cast on.

To make it 6 inches long you must take the number of rows to the inch from your sample and multiply by 6. The answer is the number of rows you must knit. Cast the sample off firmly but not tightly, the cast off edge should be approximately 4" long on this sample. Now take the sample and following the instructions on pressing, press it to size.

Having made the four samples sew them together in the following manner using the methods described in the article.



N.B. The arrows indicate the direction of the knitting and the figures quoted are the dimensions in inches.



Brother home knitting tuition Lesson 6

Lace Patterns

What are lace patterns?

Lace pattern stitches are worked by transferring the stitches to the adjacent needles, then knitting a row (or 2 rows) of plain knitting. Different kinds of beautiful lacy patterns will be obtained by the holes formed in the knitting.

Specialities of lace patterns

Lacy open work patterns are especially good for knitwear in the spring and the summertime.

Lace patterns have until now been worked by manually transferring the stitches from one needle to the other which requires a good deal of time and patience. Since the L-carriage was invented, lace patterns can be worked at an incredible speed.

How to work lace patterns

No	T.D.	4	C.K.	N	C.L.
	C.B.	PLAIN	H.C.L.	3	N
	W.B.	N	Y.	a	MC

(12sts. 16 rows = 1 pattern)

Preparation for knitting. Copy the required items from the operation chart on the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in the position as shown on the operation card.

Tension dial (TD) 4 Change knob (CK) N
 Holding cam lever (HCL) 3 Carriage button (CB) PLAIN
 Weaving button (WB) N Yarn in feeder (Y) a

- (2) Shift the change lever to Δ .
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 24, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder, using the punch according to the illustration of the punched positions for needle selection.
- (5) Set the step indicator at the starting position (the first step of the operating process).
- (6) Fasten the handle to the L-carriage (LC) and place the L-carriage on the left side of the machine body.

Order of Operations

- 1 After selecting the needles using the set lever, operate the L-carriage (LC) from left to right. Then push the step indicating lever (SIL) one step to right (Set the SIL onto 2nd step) (This is done by operating the feeding lever once by hand. Whenever the sign \perp is seen in step 4, after steps 1, 2 and 3 have been completed the SIL is moved one step to the right). Do not knit this step.
- 2 After selecting the needles using the set lever, operate the LC from right to left, then move the K carriage to left.
- 3 Move the K carriage to right.
- ★ Repeat the above process according to the operation card until 24th step. When the 24 steps are finished the step indicator will return to the first step automatically so that you can repeat all the steps.

Pull-up Lace patterns

What are Pull-up Lace Patterns?

Pull-up lace patterns are beautiful open patterns worked by combining the specialities of both automatic lace patterning and pull-up stitches.

Specialities of Pull-up Lace Patterns:

This new type of pattern stitch is especially designed for the wider use of knitting in the spring or summer season by giving a unique effect, different from mere lace patterns. Ideally they are used for the border of a garment.

How to knit Pull-up Lace patterns:

No	T.D.	4	C.K.	N	C.L.
	C.B.	PLAIN	H.C.L.	4	N △ ▽ MC
	W.B.	N	Y.	a	

S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
4	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																							
3	◄	◄	◄	◄	◄	◄	◄	◄	◄	◄	◄	◄	◄	◄																							
2	▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲		▲
1	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

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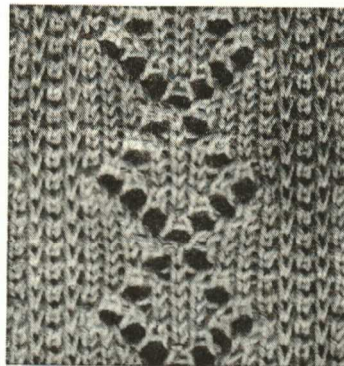
12	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
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Symbols of Stitch
(12sts, 16 rows = 1 pattern)

Preparation for knitting:- copy the required items from the operation chart onto the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operation card.

Tension dial (TD) 4
 Holding cam lever (HCL) 4
 Weaving button (WB) N
 Change knob (CK) N
 Carriage button (CB) PLAIN
 Yarn in feeder (Y) a



- (2) Shift the change lever to △.
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 23, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder by the use of the punch according to the illustration of punched positions for needle selection.
- (5) Set the step indicator at the starting position (the first step of the operating process).
- (6) Put the handle on the L carriage at the left end of the needle bed.

Order of Operations

- 1 Select the needles and move the L carriage from left to right. Push the step indicating lever (SIL) one step to right (Set the SIL onto 2nd step). This is done by operating the feeding lever once by hand. Whenever the sign **▲** is seen in step 4, after steps 1, 2 and 3 have been completed the SIL is moved one step to the right.



Brother home knitting tuition Lesson 6

- 2 Select the needles using the set lever and move the K carriage from right to left.
- 3 In that state, move the K carriage from left to right.
- 4 After selecting the needles, move the L carriage from left to right and push the SIL one step to right (onto 5th step).
- 5 After selecting the needles move the L carriage from right to left and push the SIL one step to right (onto 6th step).
- 6 Select the needles and move the K carriage from right to left.
- 7 Move the K carriage from left to right.
- 8 After selecting the needles using the set lever, move the L carriage from left to right and push the SIL one step to right (onto 9th step).
- 9 After selecting the needles using the set lever, move the L carriage from right to left and push the SIL one step to the right (onto 10th step).
- 10 Select the needles using the set lever and move the K carriage from right to left.
- 11 Move the K carriage from left to right.
- ★ Repeat the above process according to the operation card until 23rd step. When the 23 steps are finished, the step indicator will return to the first step automatically so that you can repeat all the steps.

Weaving (Thread Knitting) Patterns

What is weaving?

With weaving another kind of yarn or thread is woven between the basic stitches.

By changing the setting of the weaving apparatus, from N to T, and laying the yarn for threading over the hooks of the selected needles, the yarn is automatically woven into the knitting when the carriage is operated.

Specialities of Weaving Patterns:

Since the yarn for weaving does not form the stitches itself, some suitable yarn must be used for base knitting. Though normally the elasticity of the garment is considered as one of the greatest specialities of knitting, thread knitting is comparatively less elastic. But on the other hand it has the merit of keeping the shapes of the garment compared with the other types of stitches. A new type of non-stretch fabric has been created that is very popular for town wear or heavy coats. The fabric can also be cut and shaped, without the stitches running.

Basic yarn = medium heavy wool (ordinary 4 ply)

Yarn for threading = medium heavy wool (ordinary 4 ply), or thicker yarn.

How to work weaving patterns

The diagram shows a control card with the following settings: T.D. 6, C.K. T, C.L. N, C.B. PLAIN, H.C.L. 3, Y. a, W.B. T, L.Y. b. Below the card is a carriage diagram and a large grid with symbols for needles and stitches. To the right is a photograph of the resulting fabric texture.

Preparation for knitting. Copy the required items from the operation chart onto the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operating card.

Tension dial (TD) 6	Carriage button (CB) PLAIN
Holding cam lever (HCL) 3	Yarn in feeder (Y) a
Weaving button (WB) T	Laying in yarn (LY) – thread yarn (b)
Change knob (CK) T	into the upper tension unit.
- (2) Shift the change lever to Δ .
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 14, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder using the punch according to the illustration on punched positions for needle selection.
- (5) Set the step indicator at the starting position (the first step of the operating process).

Order of Operations

- 1 After selecting the needles by using the set lever, put the weaving thread into the left yarn guide and move the K carriage from right to left.
- 2 After selecting the needles using the set lever, put the weaving thread into the right yarn guide and move the K carriage from left to right.
- 3 Repeat the above process according to the operation card until the 14th step.
- ★ When the 14 steps are finished, the step indicator will return to the first step of the operating process automatically so that you can repeat all the steps.

Brother home knitting tuition Lesson 6

Thread Knitting and the Materials

Magic of knitting! Look at these 3 pictures below. All of them were worked by thread knitting using the same technique. As you see from these pictures, by changing the yarn for threading—quite different effects are obtained.

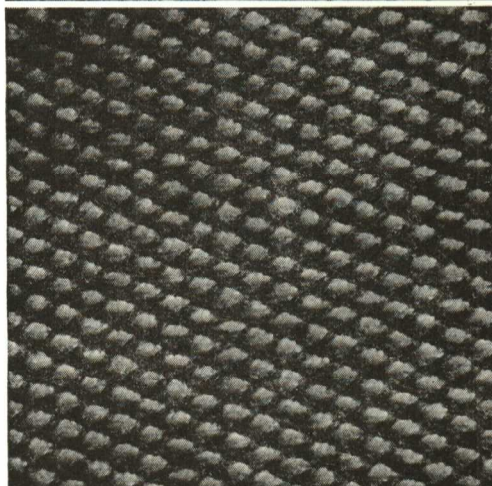
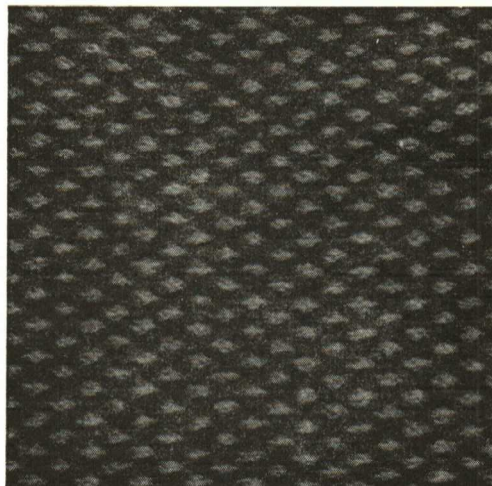
How to get the best effect in thread knitting:

We recommend using a finer yarn for basic knitting and a heavier yarn or fancy yarn for weaving. This way you will get the effect of an interesting contrast, and at the same time you can reduce the weight of the finished garment.

Pay special attention to the contrast of colours of basic knitting and the yarn for weaving. Always match them up by doing a sample piece. Be careful when holding the yarn for weaving. It should not be pulled too tight nor held too loosely. Care should be taken to hold the yarn evenly all the time. (Otherwise the knitting and patterns become uneven).

It is necessary to set the number on the tension dial according to the yarn for the weaving.

Usually 1 number looser in tension is used for weaving than for plain knitting. Do not set the tension too tight or the weaving yarn may catch in the stitches formed.



Woven-Lace Pattern Stitches

What are Woven-lace Pattern stitches?

These unique pattern stitches are worked by combining the operations of the L carriage which enables us to work the lace patterns automatically and the weaving apparatus together.

Specialities of Woven-lace Patterns:

You can obtain very interesting pattern stitches which have specialities of both lace and weaving pattern stitches. It gives a special attraction in which the woven yarn appears like dots through the open work.

How to work Woven-lace patterns:

No.	T.D. 5		C.K. T	C.L.
	C.B. PLAIN		H.C.L. 3	N Δ
	W.B. T		Y. a	MC
			L.Y. b	

5	S.I.L.	▲	▲	▲	▲	▲	▲	▲																					
4	K. C.	←←	←←	←←	←←	←←	←←	←←	←←	←←																			
3	L. Y.	b		b		b		b		b																			
2	L. C.	→		→		→		→		→																			
1	S. L.	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

	1																													
1			○			○				○				○					○											
2				○			○				○				○					○										
3					○				○				○							○										
4						○				○					○						○									
5							○				○					○						○								
6								○				○					○						○							
7									○				○					○						○						
8										○				○					○					○						
9											○				○					○					○					
10												○				○					○					○				
11													○				○					○								
12														○									○							

Symbols of Stitch
(12sts, 18 rows = 1 pattern)

Preparation for knitting. Copy the required items from the operation chart on the operation card.

- (1) Place the K carriage at the right end of the needle bed and set each of the controls in position as shown on the operation card.

- Tension dial (TD) 5
 Holding cam lever (HCL) 3
 Weaving buttons (WB) T
 Change knob (CK) T
 Carriage button (CB) PLAIN
 Yarn in feeder (Y) a
 Laying-in yarn (LY) thread the yarn (b) into the upper tension unit.



- (2) Shift the change lever to Δ.
- (3) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 24, then close the card holder.
- (4) Punch holes on the pattern card from above the card holder using the punch according to the illustration of the punched positions for needle selection.
- (5) Set the step indicator at the starting position (the first step of the operating process).
- (6) Fasten the handle to the L carriage and place the L carriage at the left end of the needle bed.

Order of Operations

- 1 After selecting the needles using the set lever, move the L carriage from left to right and as it is not used until step 5, remove the L carriage, then push the step indicator



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lever (SIL) one step to right. (Set the SIL onto 2nd step) (This is done by operating the feeding lever once by hand. Whenever the sign **L** is seen in step 4, after steps 1, 2 and 3, have been completed the SIL is moved one step to the right).

- 2 After selecting the needles using the set lever, put the weaving thread into the left yarn guide and move the K carriage from right to left.
 - 3 Remove the weaving thread from the yarn guide and move the K carriage from left to right.
 - 4 Move the K carriage from right to left.
 - 5 After selecting the needles using the set lever, place the lace carriage between the K carriage and the knitting, then move the L carriage from left to right and remove it. Push the SIL one step to right (onto 6th step).
 - 6 After selecting the needles by using the set lever, put the weaving thread into the right yarn guide and move the K carriage from left to right.
 - 7 Remove the weaving thread from the yarn guide and move the K carriage from right to left.
 - 8 Move the K carriage from left to right.
 - 9 After selecting the needles using the set lever, move the L carriage from left to right and push the SIL one step to right (onto 10th step).
- ★ Repeat the above process according to the operation card until 24th step. When the 24 steps are finished, the step indicator will return to the first step automatically so that you can repeat all the steps.

See-Through Patterns

Outline of the See-through pattern

See-through pattern knitting is an application of the Fairisle pattern knitting using a transparent yarn as the knitting yarn. (a) and the fine yarn or medium fine yarn as the laying-in yarn. (b)

Features of the See-through pattern

The See-through patterns are a sort of Fairisle pattern knitting, part of which is made from transparent yarn and the effect is similar to a lace pattern.

How to knit a See-through pattern

Preparation for knitting. Copy the required items from the operation chart onto the operation card.

- (1) Place the K carriage at the left end of the needle bed and set each of the controls in position as shown on the operation card.
Move the K carriage from left to right to knit one row.
Tension dial (TD) 1 Carriage button PLAIN
Holding cam lever (HCL) 3 Yarn in feeder (Y) Transparent yarn (TY) (Nylon).
Weaving button (WB) N Laying in yarn (LY) thread the automatic yarn tension unit (b).
Change knob (CK) MC
- (2) Depress both the right and left PART buttons simultaneously.
- (3) Shift the change lever to ▼.
- (4) Push the release lever in the pattern centre to the right to open the card holder. Next, set the pattern card in position and the pattern repeat regulator at 18, then close the card holder.
- (5) Punch holes on the card from above the card holder using the punch according to the illustration of the punched positions for needle selection.
- (6) Set the step indicator at the starting position (the first step of the operation process).

Order of Operations

- 1 After selecting the needles using the set lever, put the laying-in yarn into the left yarn guide and move the K carriage from right to left *.
 - 2 After selecting the needles using the set lever, put the laying-in yarn into the right yarn guide, and move the K carriage from left to right.
* (If you prefer the laying-in yarn (B) can be laid across the needles in D1 position. You will find this easier as it saves moving this yarn (B) from one yarn guide to another every row).
 - 3 Repeat the above process according to the operation card until 18th step.
- ★ When the 18 steps are finished, the step indicator will return to the first step automatically. so that you can repeat all the steps.

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Ladies Lacy Jumper

Materials 10 (10, 11, 11) ozs. 4-ply wool.

Measurements To fit bust sizes 36 (38, 40, 42) ins.
Finished measurements 38 (40, 42, 44) ins.
Length to shoulder 21 $\frac{1}{2}$ (22, 22 $\frac{1}{2}$, 23) ins.
Sleeve seam 3 ins. all sizes.

Tension 11 $\frac{1}{2}$ sts. and 25 rows to 2 ins. over lace pattern after pressing.

Abbreviations Sts., stitches; inc., increase; dec., decrease; alt., alternate; rep., repeat; foll., following; beg., beginning; HCL's., holding cam levers; T., tension; 000, turn row counter to 000.



Notes Figures in brackets refer to larger sizes respectively. When shaping neck, always keep the first 2 sts. in B position (do not make a hole) as this will make it easier when picking up sts. for the neckband.

Back Using contrast colour, cast on 109 (115, 121, 127) sts. Knit a few rows. Change to main colour. T7. Knit 4 rows. HCL's 2. Put 3rd (4th, 3rd, 4th) and every foll. 4th needle to E position. Knit 5 rows. HCL's 3. Knit 4 rows. Make a hem. Knit 1 row. 000. T6. Following your own lace chart knit 166 rows. This will give a length of 14 ins. to armholes. Adjust length here if required.

Shape Armholes

000. Cast off 4 sts. at beg. of next 2 rows and 2 sts. on next 2 rows. Dec. 1 st. at both ends of next and every foll. alt. rows until 81 (85, 91, 95) sts. remain *. Knit straight until 70 (76, 82, 88) rows have been worked.

Divide for Neck

Slip 53 (56, 60, 63) sts. at opposite end to Carriage onto a knitting needle. Knit on remaining sts. first. Knit 2 rows. Dec. 1 st. at neck edge (see Notes) on next and every foll. alt. rows 11 times in all. 17 (18, 20, 21) sts. remain. Knit 1 row.

Shape Shoulders

Cast off 5 sts. at beg. of next and alt. rows until 2 (3, 5, 6) sts. remain. Knit 1 row. Cast off. Replace 28 (29, 31, 32) sts. at side edge to machine. Keeping pattern correct knit to match first side reversing all shapings.

Front

Knit as given for Back to *. Knit straight until 54 (60, 66, 72) rows have been worked.

Divide for Neck

Slip 51 (54, 58, 61) sts. at opposite end to Carriage onto a knitting needle. Knit on remaining sts. first. Knit 2 rows. Dec. 1 st. at neck edge (see Notes) on next and every foll. alt. row 7 times in all and then every foll. 4th row until 17 (18, 20, 21) sts. remain. Knit 1 row.

Shape Shoulders

Knit as back shoulder. Replace 30 (31, 33, 34) sts. at side edge to machine. Keeping pattern correct, knit to match first side reversing all shapings.

Sleeves

Using contrast colour cast on 63 (65, 69, 71) sts. Knit a few rows. Change to main colour. T7. Knit 4 rows. HCL's 2. Put 4th (3rd, 3rd, 4th) and every foll. 4th needle to E position. Knit 5 rows. HCL's 3. Knit 4 rows. Make a hem. Knit 1 row. 000. T6. Following your lace chart knit 6 rows. Inc. 1 st. at both ends of next and every foll. 4th row until there are 75 (77, 81, 83) sts. Knit straight until 32 rows have been worked.

Shape Top

000. Cast off 4 sts. at beg. of next 2 rows and 2 sts. on next 2 rows. Dec. 1 st. at both ends of next and every foll. alt. rows 5 times in all and then every foll. 4th row 9 (10, 10, 11) times in all. Knit 1 row. Dec. 1 st. at both ends of next and every foll. alt. rows 3 (3, 5, 5) times in all. Knit 1 row. Cast off 2 sts. at beg. of next 2 rows and 3 sts. at beg. of next 4 rows. Cast off remaining 13 sts.

Neckband – Back

With wrong side facing replace 25 (27, 29, 31) sts. on to machine. Pick up 22 sts. each side of centre sts. and place on machine. 69 (71, 73, 75) sts. * T7. Knit 5 rows. T6. HCL's 2. Put 3rd (4th, 3rd, 4th) and every 4th needle to E position. Knit 5 rows. T7. HCL's 3. Knit 4 rows. Knit 1 loose row. Cast off using chain method.

Neckband – Front

With wrong side facing replace 21 (23, 25, 27) sts. onto machine. Pick up 26 sts. each side of centre sts. and place on machine. 73 (75, 77, 79) sts. Knit as back neckband from * to end.

To Make Up

Pin out and press with a hot iron over a damp cloth. Join side, shoulder and sleeve seams. Set in sleeves. Fold neckband to wrong side and slip-st. in place. Press seams.



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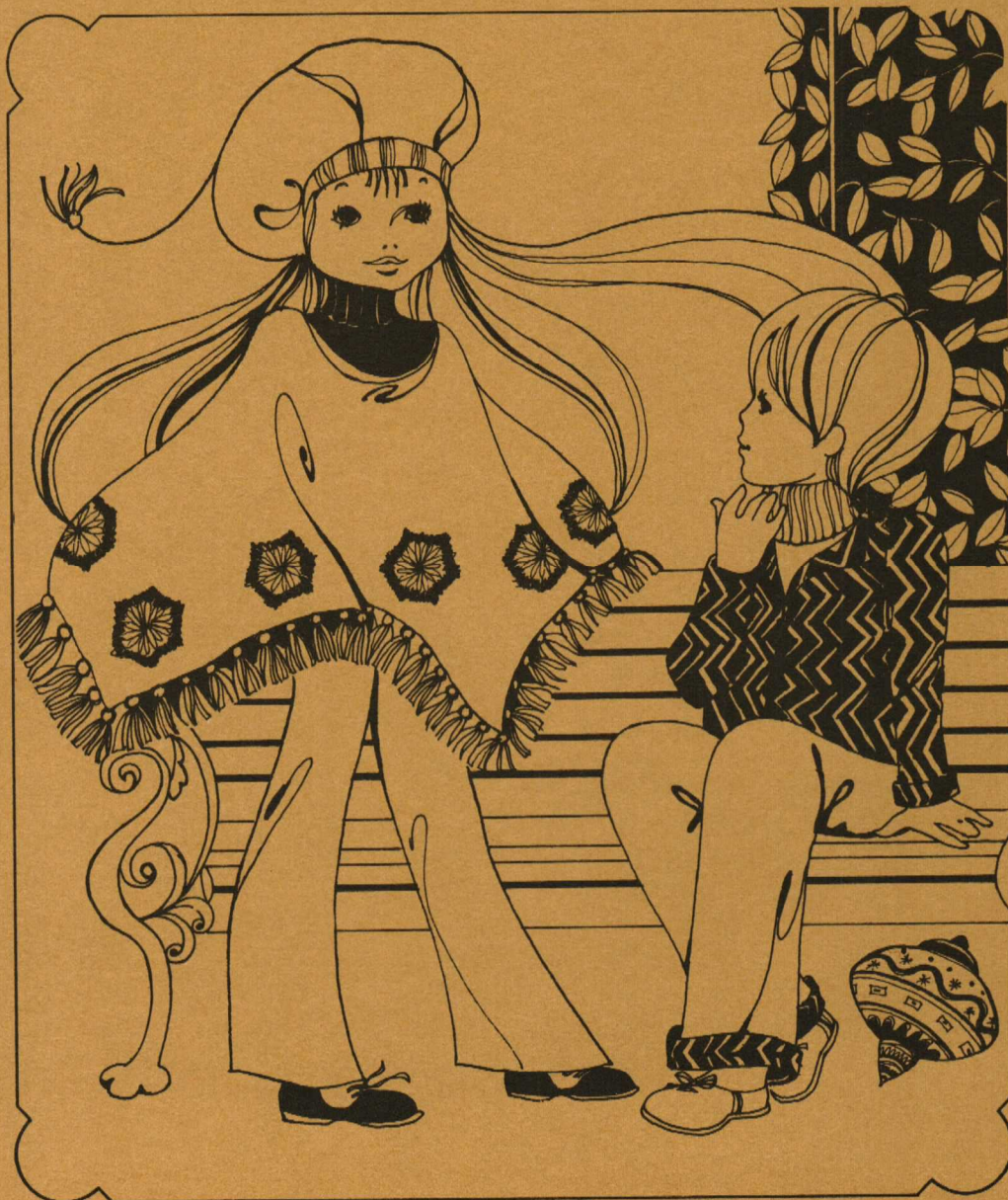
* At this stage for pupils who own ribbing attachments we can introduce the attachment postal course.

You are now on the way to becoming an expert machine knitter. In this lesson there is sufficient wool to knit a jumper for a member of your family. If you knit this and have no queries please tick the box below. We have supplied a pattern but no chart to enable you to experiment making your own patterns.

I have knitted this garment and have no queries.

If you have difficulties please send the garment and questions to us and we will return the garment with our suggestions.

Please print the queries in block capitals and number them.



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Tricks and Oddities

Lace

Cast on 40 stitches. Knit 10 rows. CARRIAGE on right. Make and insert a punched card to select every fourth needle which will repeat the same pattern every time the set lever is set. * Set LEVER. Move LACE CARRIAGE from left to right and back again. Knit 2 rows. * Repeat from * to * 20 times.

You will see that the knitting has got a slope or bias to it. Now continue as before but this time always move the LACE CARRIAGE to the right before setting the LEVER and then after setting the LEVER take the LACE CARRIAGE back to the left. If you repeat this the same number of rows as before you will notice the knitting will now slope or have a bias the other way. This method can be used on occasions to produce an unusual effect.

Some beginners when reading a pattern chart mis-read the instructions regarding the direction of the LACE CARRIAGE and this can result in an unintentional bias which will spoil a garment. Most people are right handed so they set up the machine so that the LACE CARRIAGE stays at rest on the extension rails at the left hand side of the machine. If this is the case then the following rules always apply.

If the LACE CARRIAGE direction is shown as → then the LEVER is set and the LACE CARRIAGE is used from left to right and then returned to the left.

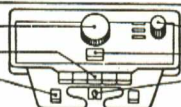
If the LACE CARRIAGE direction is shown as ← then the LACE CARRIAGE is moved to the right **before** the LEVER is set and is then returned to the left. **It is very important when reading a lace chart that you read the lace carriage direction correctly.**



Patterns in Panels

Sometimes when knitting a garment you do not always want the pattern right across the garment. Try the following experiment with a lace pattern. Follow the lace pattern on the chart enclosed.

Cast on 40 stitches. Complete one pattern cycle from step 1—normally. Then follow the pattern once more but this time after you have set the LEVER push back all the needles from 'C' POSITION to 'B' POSITION except the one nearest the centre. Take the LACE CARRIAGE across and back and knit two rows. Set the LEVER for step 2 and then push all the needles back from 'C' POSITION to 'B' POSITION except the two (one either side) around the one which you left on step 1. Take the LACE CARRIAGE across and back and then knit 2 rows. On the third step after setting the LEVER push back to 'B' POSITION all but the centre three selected. Use the LACE CARRIAGE and then knit 2 rows. You will see how the pattern is only forming in the centre and we have only allowed one diamond to work because we have pushed back all the other needles from 'C' POSITION to 'B' POSITION before using the LACE CARRIAGE. Complete this single diamond and then knit another complete pattern cycle without pushing back the stitches. The sample will look like the picture below.

No 630	T.D.	5		C.K.	N	C.L. N Δ ▽ MC
	C.B.	PLAIN		H.C.L.	3	
	W.B.	N		Y.	a	

5																																							
4	S.I.L.	▲	▲	▲	▲	▲	▲																																
3	K. C.	→	→	→	→	→	→	→	→	→	→	→	→	→	→																								
2	L. C.	↗	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗	↖	↗	↖																								
1	S. L.	↘	↙	↘	↙	↘	↙	↘	↙	↘	↙	↘	↙	↘	↙																								

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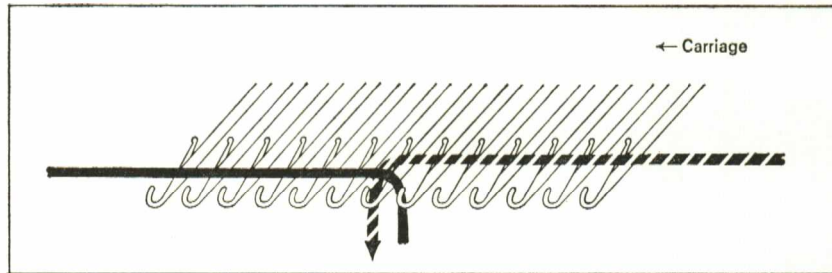


(If your sample pattern is slightly off centre it is not important. It could be centred up if you wish by making sure that when you press button 4 the centre needle is selected. This should be done before you begin your sample piece).

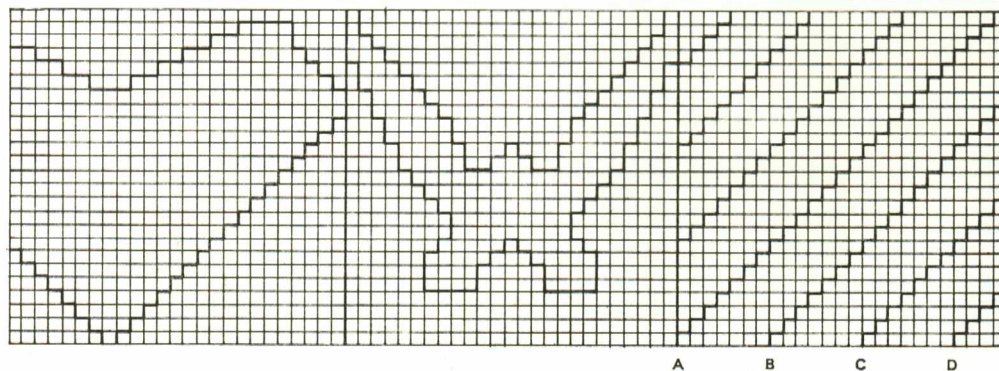
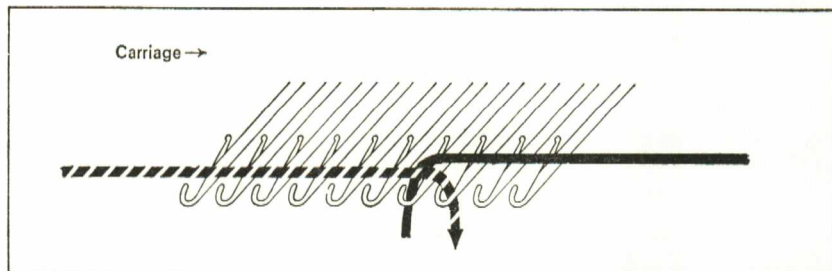
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Colour Work A Simple Experiment

Set the CHANGE KNOB to MC. after you have cast on 40 stitches and knitted 10 rows. With CHANGE KNOB on MC. knit 2 rows. CARRIAGE on right. Take wool out of YARN FEED. Unthread UPPER THREAD TENSION UNIT. Push in **both** PART BUTTONS*. Using 4-ply wool in two contrasting shades lay colour across the 20 needles nearest the CARRIAGE in the direction indicated. Then shade B over the remaining 20 needles but ensure that the shade B overlaps on the 20th needle with shade A as in the diagram.



Making sure the two wools do not drag or tug, knit slowly across. One half of the needles has knitted shade A and the other half shade B. Now CARRIAGE is on left. Lay shade A over 20 needles furthest from CARRIAGE then lay shade B over the 21 needles nearest CARRIAGE making sure 'B' overlaps 'A'. Knit slowly across making sure you do not tug the wool or hold it tightly*. Repeat from * to * 20 times and then press plain button. Re-thread UPPER THREAD TENSION UNIT and place wool in YARN FEED. Turn CHANGE KNOB to 'N' and continue to knit 10 rows. If you have been overlapping correctly on the middle stitch you will have two panels of colour neatly joining together. If not, you will have either a ragged join or a vertical split. Note there are no loops across the back. You may like to experiment with different patterns and designs. Set out below are some ideas.

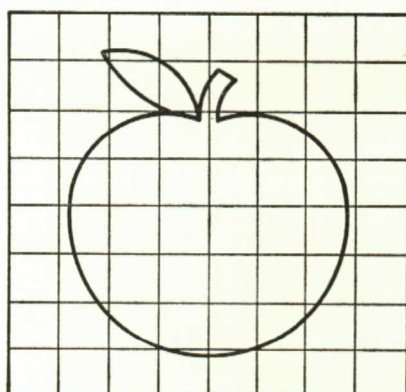
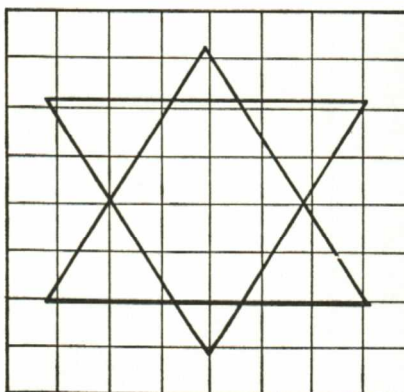
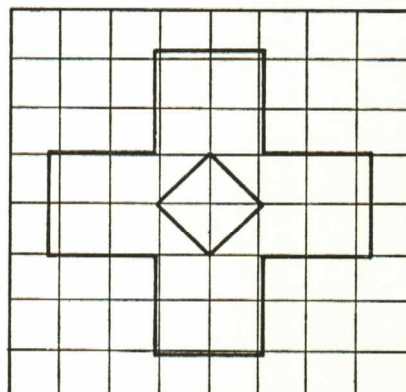
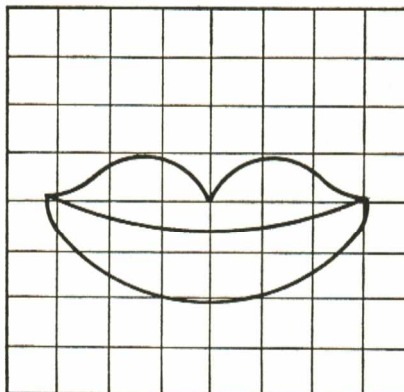
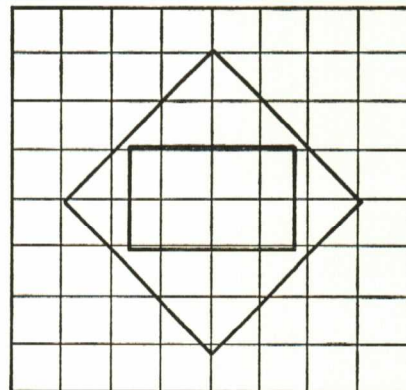
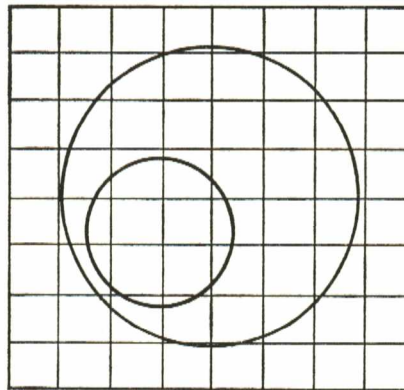


To avoid loops on back, work with two balls of main.

Use separate colours A, B, C & D using one ball for each band.

Another Method for Smaller Designs

Leave main yarn threaded. Set CHANGE KNOB to MC. Knit 2 rows. Press in both PART buttons. Bring forward all the needles you want to knit main colour to 'E' POSITION. Lay contrast colour across those in DI POSITION. Knit across. Repeat following chart but remember the contrast yarn must always overlap on one needle in E POSITION on either side otherwise your motif will detach itself.



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Swiss Darning by Neville Rayner

Methods of working and design

Swiss darning is a method of embroidering stocking stitch in contrasting colours by following the knitted stitches and super-imposing patterns on the surface of the fabric, thus forming a type of Fair Isle patterning. Swiss darning can even be employed as an extra embellishment to Fair Isle patterns which have been knitted on your machine. Any mistakes which occur in the course of Fair Isle knitting can easily be rectified by Swiss darning over the mistakes. This saves the laborious job of unravelling your knitting, providing the mistake is not a serious one.

Diagrams A to C demonstrate the method of working a "block" of colour, working horizontally along each row of knitting. In A bring the needle through the base of the stitch, i.e. the lower V point of a stitch. Draw the wool through, leaving about 4 inches free to the opposite end to the needle which can be taken through to the back of the fabric and then fastened off when the work is completed. Take the needle under both the threads of the lower V point of the stitch above and draw up the thread.

In B take the needle under both the threads of the upper V point of the row below, i.e. a thread of each half stitch. Continue in this way along the row working into the row above and below the row that is being covered by Swiss darning.

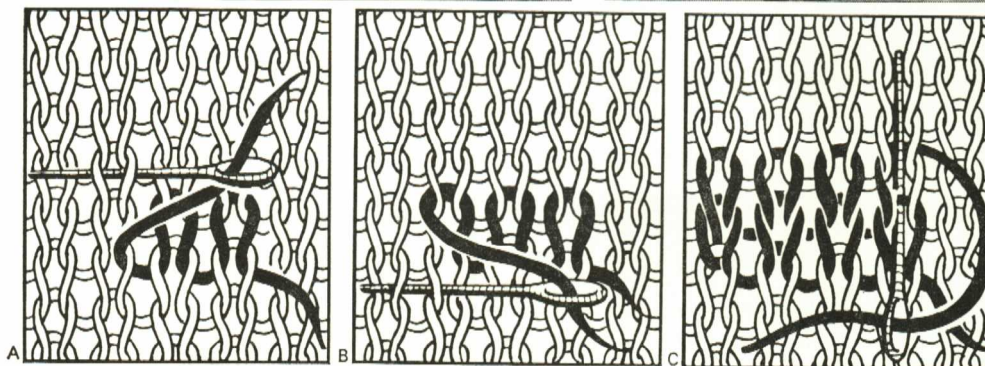
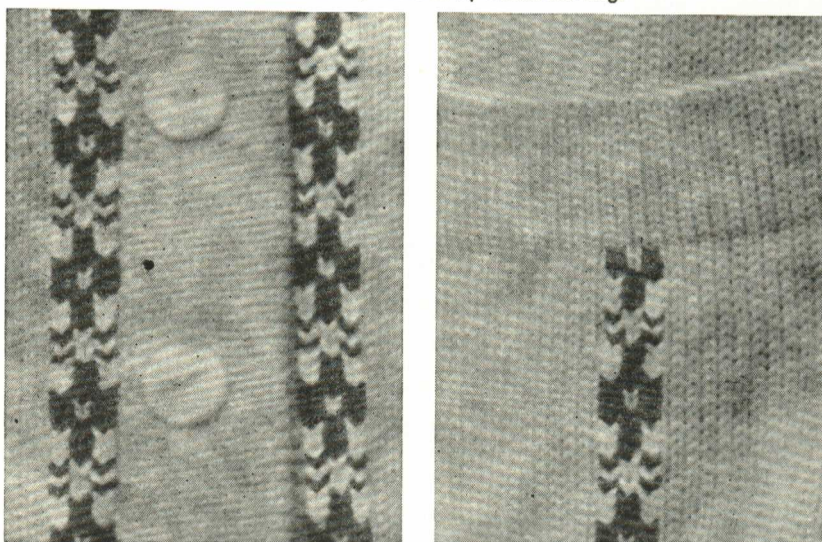
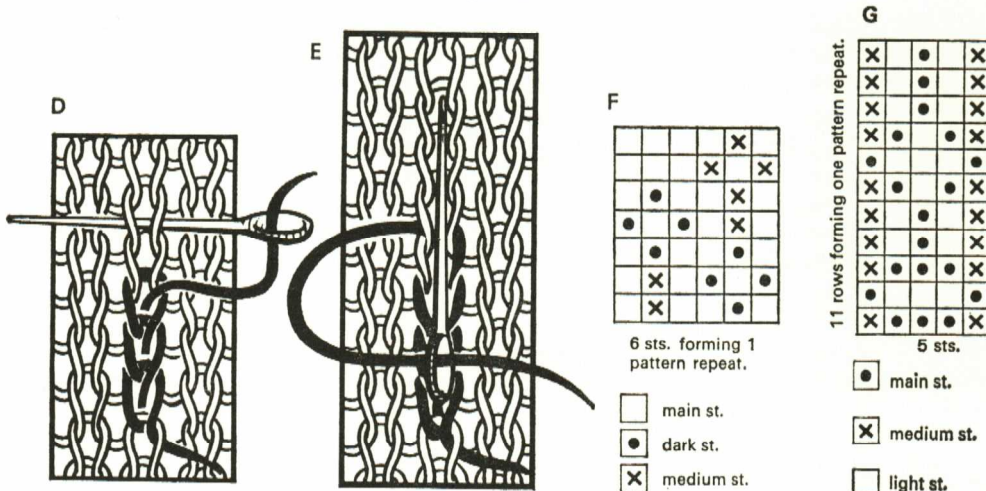


Diagram C demonstrates the method of working to the row above at the end of the "block". Insert the needle under the top of the stitch on the row below that which is being darned and draw up thread. This method of working to the row above applies to either end of a "block".

When working from right to left darn along the row with the cast on edge or hem towards you. When working from left to right it is possible to work with the knitting the same way, but you may find it easier to turn the work upside down, the knitted structure will appear the same. This will be apparent if you turn diagram C upside down. Diagrams D and E demonstrate the method of working vertically over one stitch. The method of working is basically the same as shown in diagrams A to C.

Before attempting any designs on finished garments knit samples of stocking-stitch on your machine with oddments of double knitting on the loosest tension possible and work as shown in these diagrams.



Points to Remember

- 1 The tension of the Swiss darning should be the same as the stocking-stitch of the main fabric. A little practice will help to achieve this.
- 2 Swiss darning is invariably worked in the same ply of yarn as the main yarn, though always in different colours.
- 3 Always use a needle specifically made for sewing up knitwear as these needles have blunt-pointed ends which do not split the yarn.

The diagrams and photographs to F and G demonstrate two paper designs and the photographs show the final Swiss darned results.

These designs have been worked on squared paper, which can easily be purchased, otherwise you can draw squares onto paper to design your own patterns. The paper designs to F and G use one square for each stitch and a different symbol for each colour. (Use the same symbol for the same colour throughout your design). The colour of the main yarn has been symbolised by a blank square.

Diagram H shows the various symbols which can be used in designing patterns when using more than the three colours in F and G.

Swiss darning can be used extensively on plain classic garments and we have printed here a simple cardigan with patterning either side of the front bands, and in the centre of the pockets. The pattern in diagram F could be used instead above the hems of the front and back and sleeves. This would mean the pockets being situated higher than on this particular cardigan, though the pockets are not essential.

Once you have mastered the Swiss darning technique why not try your hand at designing your own patterns. This embroidery can look especially good on sportswear and on children's garments. Delicate borders, animals, birds, flowers or initials could look good on children's garments.

Here are some suggested symbols for contrasting shades if you wish to design your own Swiss darning.



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Ladies V Neck Cardigan With Swiss Darning Detail

Materials 15 (16, 16) ozs. Patons Purple Heather 4-ply. Main 1 oz. each of two contrasting colours for Swiss darning. 7 buttons.

Measurements To fit 36 (38, 40) inch Bust.
38 (40, 42) ins. all round at underarm.
8 (8½, 8½) ins. armhole depth.
10 (10½, 11) ins. hem to armhole.
18 (18½, 18½) ins. sleeve seam.
12 (12½, 13) ins. sleeve width at widest point.

Tension 8 sts. and 12 rows to 1 inch on tension 5.

Abbreviations T., tension; N., needles; K., knit; st(s), stitches; pos., position; COR(L), carriage on right or left; 000, set row counter to 000; inc., increase; beg., beginning; alt., alternate; HCL's, holding cam levers; rem., remaining; foll., following; ff1., transfer the 5th st. to the 6th st., move up the 4 edge sts. to fill space, push to A position the empty edge needle. B.Y., break yarn; fin., finishing; cont., continue.

Note Instructions for the larger sizes are in (), where only one figure is given this applies to all sizes.

Cardigan-Back T3. Cast on by hand over every N. 136 (144, 152) sts. * K. 16 rows. T7. K. 1 row for foldline. T3. K. 16 rows. Make hem by placing each cast on st. onto N. in B pos. T5. K. 1 row. COR. 000. * Inc. 1 st. each end of every foll. 9th row to 152 (160, 168) sts. K. to row 108 (112, 116).

Shape Armholes Cast off 8 (9, 10) sts. at beg. of the next 2 rows. 136 (142, 148) sts. 000. ff1 each end of every other row to 112 (118, 124) sts. K. to row 96 (100, 104).

Shape Shoulders Cast off 5 sts. at beg. of the next 8 rows, then cast off 4 (5, 6) sts. at beg. of the next 4 rows. Cast off rem. 56 (58, 60) sts.

Right Front T3. Cast on by hand over every N. 72 (76, 80) sts. Rep. from * to * as on back. K. to row 105 (109, 113) fin. COL.

Shape Dart HCL's to II. Push to E pos. 5 N. on right edge, K. 1 row. COR. Take wool round first inside N. in E pos., K. 1 row. COL. Push 5 more N. to E pos. on right edge, K. 1 row. COR. Take wool round first inside N. in E pos., K. 1 row. COL. Cont. in this way, pushing 5 more N. to E pos. in right edge when COL. 4 (5, 6) times more working 2 rows in between fin. COL. 30 (35, 40) N. in E pos. for dart. Push these dart N. to D pos. K. 3 rows. COR.

Shape Armholes Cast off 8 (9, 10) sts. on left edge. 64 (67, 70) sts. 000. ff1. every alt. row on armhole to 52 (55, 58) sts. K. to row 36.

Shape Neck ff1 on next and every foll. 3rd row to 40 (43, 46) sts., and then every alt. row to 28 (30, 32) sts. on the left edge. K. to row 96 (100, 104).

Shape Shoulder Cast off 5 sts. at beg. of the next row and at this same edge every alt. row 3 times more fin. COR., then cast off 4 (5, 6) sts. every alt. row twice.



Left Front

Work to match right front reversing shapings.

Sleeves

T3. Cast on by hand over every N. 64 (68, 72) sts. Rep. from * to * as on back. Inc. 1 st. each end of every foll. 10th row to 96 (100, 104) sts. K. to row 204 (208, 212).

Shape Top

Cast off 8 (9, 10) sts. at beg. of the next 2 rows. 80 (82, 84) sts. 000. ff1 each end of every foll. 3rd row to 56 sts. ff1 each end of every other row to 32 sts., and then every row to 24 sts. Cast off rem. 24 sts.

Right Front Band

T4. Cast on by hand over N. 178 (189, 200) sts. K. 2 rows. ** HCL's to II. Push left 107 (113, 119) N. to E pos. K. 6 rows on right 71 (76, 81) N. then push them to E pos. BY. * Push next 17 (18, 19) N. to D pos., K. 6 rows on them then push them to E pos. BY. Rep. from * 5 times more. Push rem. 5 N. to D pos., K. 6 rows on them then push them to E pos. BY. ** COL. HCL's to I. K. 8 rows. T7. K. 1 row for foldline. T4. K. 8 rows. COR. Rep. from ** to ** once more. HCL's to III. COR. HCL's to I. K. 2 rows on all N. in B pos. Make double band by placing each cast on st. onto N. in B pos. Press fronts and back. Join shoulder seams. With wrong side of right front and back facing you and working from right edge of N. cont. as folls. Place 1/2 back neck to first 28 (29, 30) N., place neck edge from shoulder to first dec. on neck evenly onto next 43 (47, 51) N., place rem. of front edge to rem. 107 (113, 119) N. evenly. Cast on band 1/2 back neck and front edge together loosely.

Left Front Band

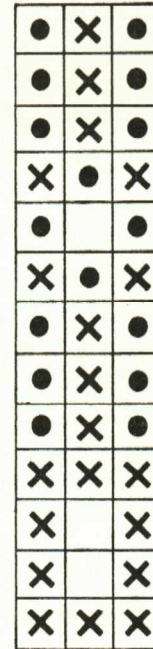
T4. Cast on same number of sts. as before. K. to same rows as before omitting buttonholes. Make double band and place 1/2 back neck and left front edge to N. evenly reversing positions. Cast off loosely.

Pockets

T3. Cast on by hand over every N. 39 (41, 43) sts. Rep. from * to * as on back. K. 44 rows. Cast off loosely.

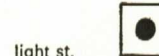
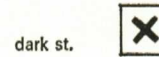
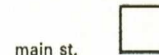
To Complete

Press work on wrong side with hot iron over a damp cloth. Join band at centre back neck. Join band ends. Oversew buttonholes. Work Swiss darning as on diagram at either side of front band from the top of the hem to shoulder seam. Sew in sleeves. Join side and sleeve seams. Swiss darn centre 3 sts. on pockets from cast on edge to top hem. Sew on pockets. Press seams, pockets and bands. Sew on buttons.



13 sts.

13 rows forming one pattern repeat.



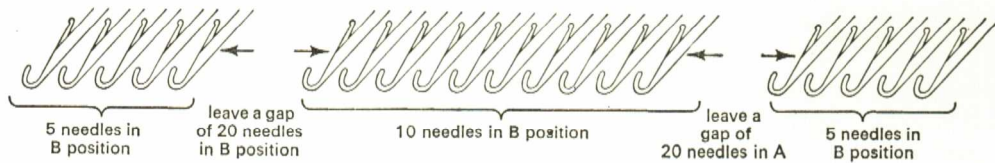
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Piping

Bring forward 3 needles to 'B' POSITION. Cast on. Knit 4 rows plain. Push in 1 PART BUTTON and begin to knit but keep a tight pull down on the knitting formed. You will find you are knitting a tube and this can be knitted from 2 stitches to 7 stitches wide without any hand work. This can be used for braiding, piping, belts and motifs. (Aran article).

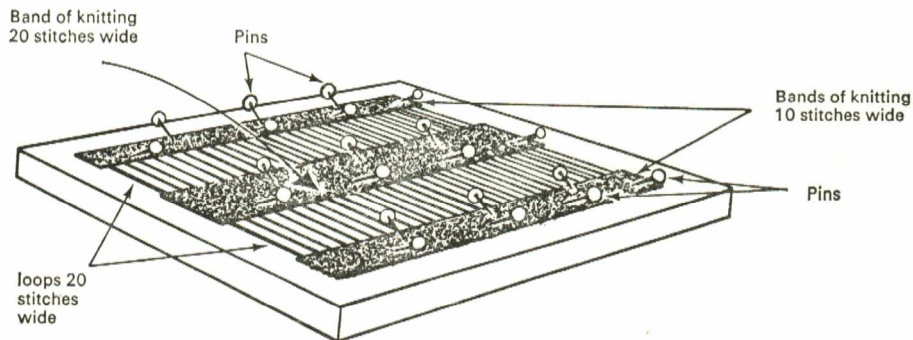
Fringes

Cast on 10 stitches. Knit 10 rows. CARRIAGE on right. Leave a gap of 20 needles between the edge of those in B POSITION and the CARRIAGE and then cast on 5 stitches. There will be a loop from the existing 10 stitches to the new 5. Take the CARRIAGE across and repeat the other side of the original ten. Now knit steadily for 50 rows. Cast off loosely keeping a loop between the outer group of 5 and the centre 10.

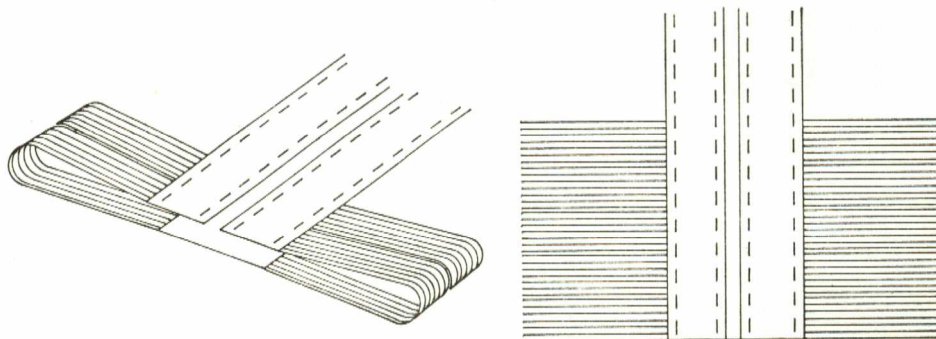


Do not pull on the knitting

Pin this out on your pressing pad as below. Taking care not to pull the stitches so that they become loose and press with a hot iron over a damp cloth.

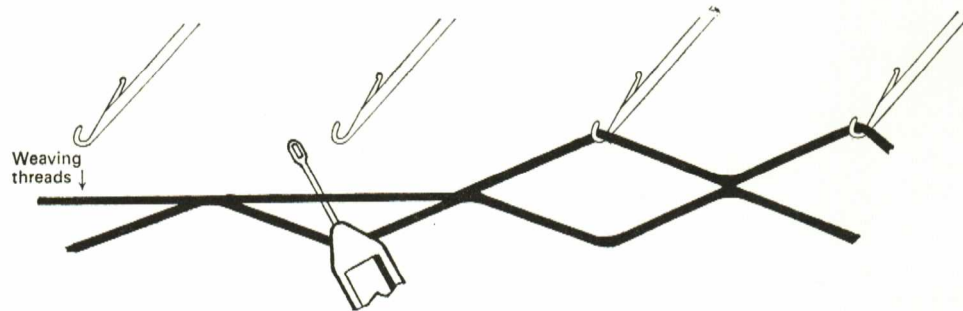


Then turning the knitting as shown below, sew the edges to the middle with your sewing machine.



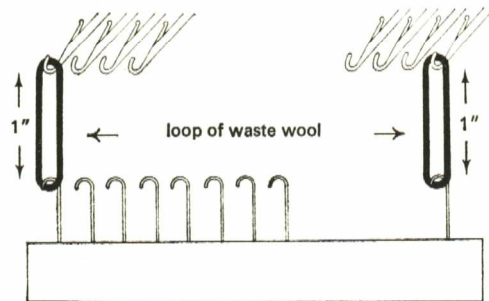
Weaving

Cast on 40 sts. in 4 ply and knit 10 rows. Take a soft double knit yarn for weaving and work as follows: Set the carriage for weaving. Punch a card as follows: In column 1 (for the first step) punch a hole in nos. 1 and 7. Leave columns 2, 3 and 4. (for steps 2, 3 and 4) blank. In column 5, punch a hole in nos. 4 and 10. Leave columns 6, 7 and 8 blank, but set the automatic pattern repeat regulator to Column 8. **To knit.** Set the lever. Lay in the double knit, and knit across. Knit 3 rows without moving the set lever. Set the lever for step 5, and pick up the double knit as shown in the diagram, and place it on the needles selected, taking care not to push them back. Now lay across the double knit again, and weave it in. Then knit without setting until after step 8. The automatic pattern repeat regulator returns to step one. Repeat for the full pattern effect.

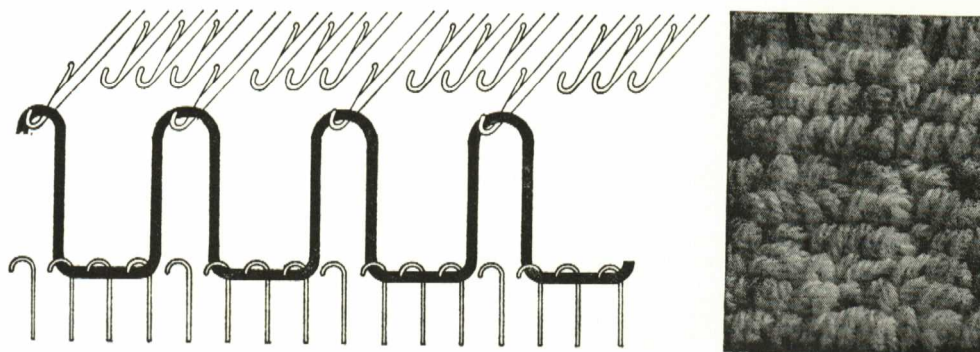


Another Experiment

Punch a card to select every fourth needle every row, and set the machine for weaving.



Set LEVER. Take the weaving yarn and wrap it round the comb and needles as in the diagram.



(Care should be taken that you do not pull the weaving yarn tight so that the comb is lifted. If this happens the loops will be bigger one end than the other). Knit across. Keeping a firm pull down on the comb as you move the CARRIAGE across, dis-engage the comb by tipping it so that the loops come free. Place the free loops behind the comb. Knit 2 rows plain and repeat from the beginning. Do this 20 times and you will see you are beginning to make a fringed fabric. If you would like a closer pile like a carpet, then you must wind the loops and weave them in every row instead of every third row

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Motives (Not Automatic)

Motives:

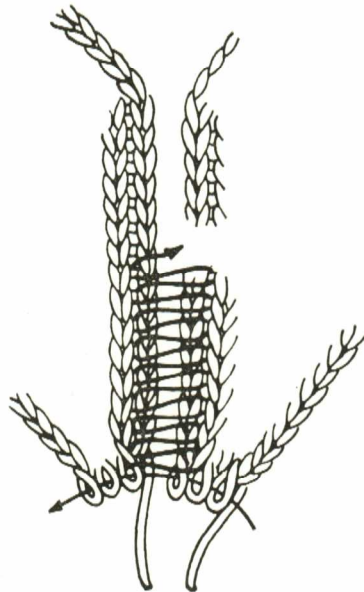
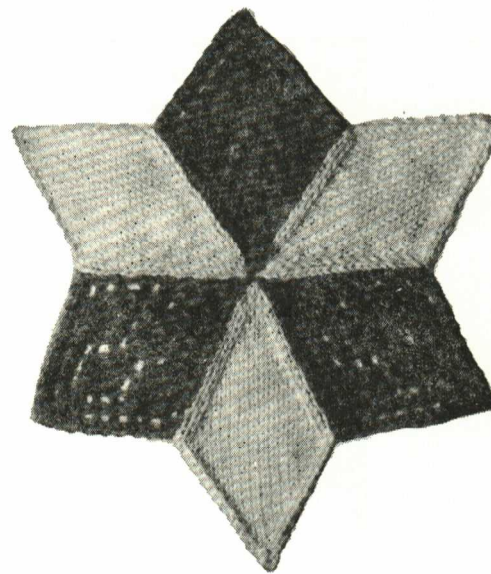
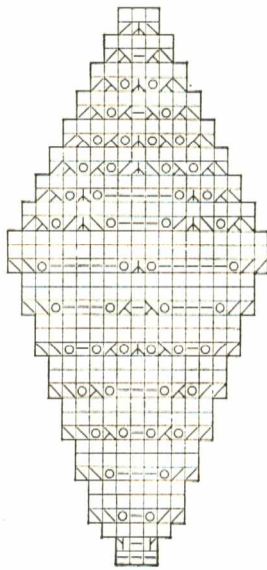
A motif is a unit of work shaped either round, square, pentagon, hexagon or octagon. The small pieces are joined together for the complete article.

Specialities of Motives:

The article worked in motives has a special handicraft effect that has become increasingly popular.

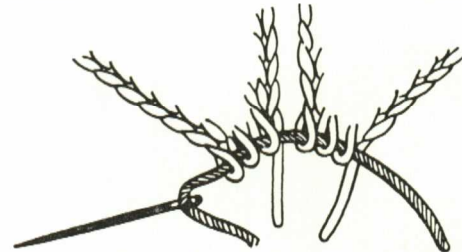
The motives are generally assumed to be worked by crocheting alone; but this book includes some of them made on the knitting machine.

How to join motives worked on machine:



2nd motif

1st motif



Pass the wool through 3 sts. of the commencement, 18 sts. altogether, and pull it tight.

1 To knit a motif on machine, first cast on 3 sts., then work per diagram, transferring sts. on both edges,

2 After you have made 6 pcs of diamond shaped motives (3 in each colour), join them as shown in the diagrams. Then pass thread 3 cast on sts. of each motif (18 sts. in all) and pull tight.

Solid Patterns (Not Automatic)

What are solid patterns?

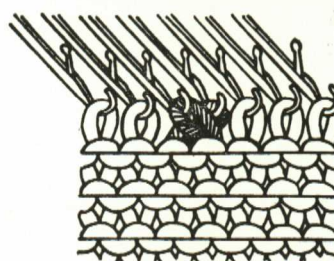
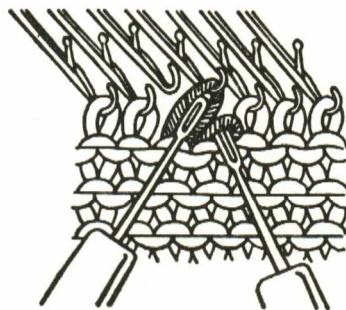
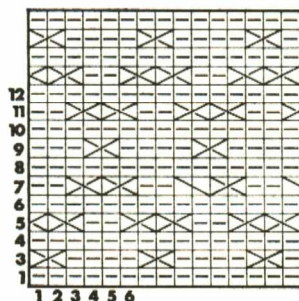
The solid patterns are worked on a plain knitted basis by using a work hook or transfer tool for changing knit stitches to purled stitches—or transferring (or crossing) the stitches for cable patterns.

Specialities of solid patterns:

They are a rather traditional type of pattern stitch. Though they do not look as fancy as other pattern stitches they are still widely used, for there is a rich variety of designs.

Order of operations:

- 1 Knit 2 rows of plain knitting.
 - 2 Using a pair of one needle transfer tools, take off the stitches from the 1st and 2nd needles of the diagram below, and put the 2nd stitch onto the 1st needle and the 1st stitch onto the 2nd needle. (Crossing left over right).
 - 3 Knit 2 rows in plain knitting.
 - 4 Work cross stitches same as for 2, 2nd stitch onto 3rd needle and 3rd stitch onto 2nd needle (crossing right over the left). Again cross 7th stitch onto 6th needle and 6th stitch onto 7th needle. (crossing left over the right).
 - 5 Knit 2 rows in plain knitting.
 - 6 Transfer 3rd stitch onto the 4th needle and 4th stitch over the 3rd stitch (crossing right over the left). Transfer 6th stitch onto the 5th needle and 5th stitch onto the 6th needle (crossing left over the right).
 - 7 Knit 2 rows in plain knitting.
 - 8 Transfer 5th stitch onto 4th needle, 4th stitch onto 5th needle (crossing left over the right).
 - 9 Knit 2 rows in plain knitting.
 - 10 Transfer 4th stitch onto 3rd needle, 3rd stitch onto 4th needle (crossing left over the right). Transfer 5th stitch onto 6th needle, 6th stitch onto 5th needle (crossing right over the left).
 - 11 Knit 2 rows in plain knitting.
 - 12 Transfer 3rd stitch onto 2nd needle, 2nd stitch onto 3rd needle (crossing left over the right). Transfer 6th stitch onto 1st needle, 1st stitch onto 6th needle (crossing right over the left).
- ★ Repeat steps from 1 to 12.



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Decorative Edging Stitches

Edging Stitches:

Edging stitches are a type of modified lace pattern stitch.

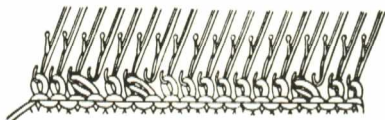
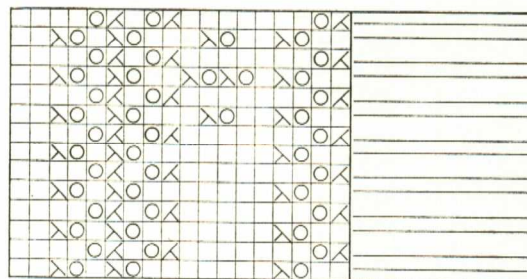
Specialities of knitted or crocheted edgings:

They are widely used as a finishing touch to lace work, instead of braid. A properly finished edge will make the garment look far more attractive.

Edgings worked on the Machine

Fringed Edging:

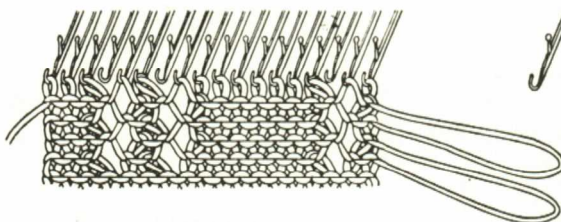
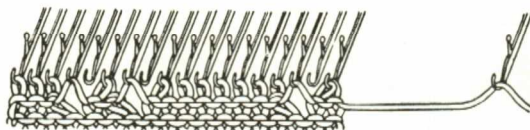
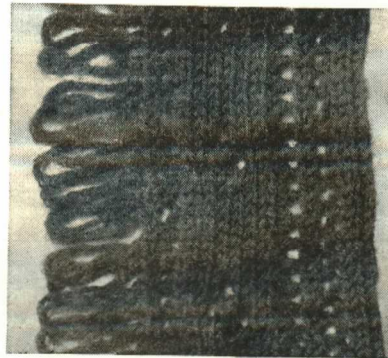
K. Symbols: 26 sts., 2 row = 1 pattern



Place carriage at left side.

On right side bring out 1 needle per diagram and knit 1 row.

Rest 10 needles

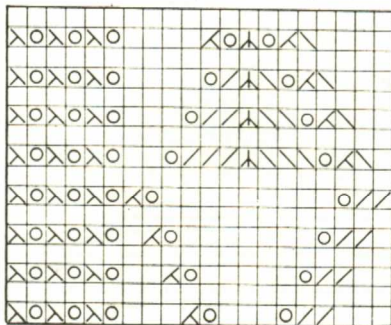


For the length of fringes bring out 1 needle, 9th—11th from main knitting. By operating carriage twice across the needle will catch yarn. Operate carriage 2 times more in the same manner, then remove the sts. from needle and tie at the edge of main knitting.

Tie the loops which were removed from this needle.

Edging of Diamond Pattern:

K. Symbols: 20 sts., 19 rows = 1 pattern



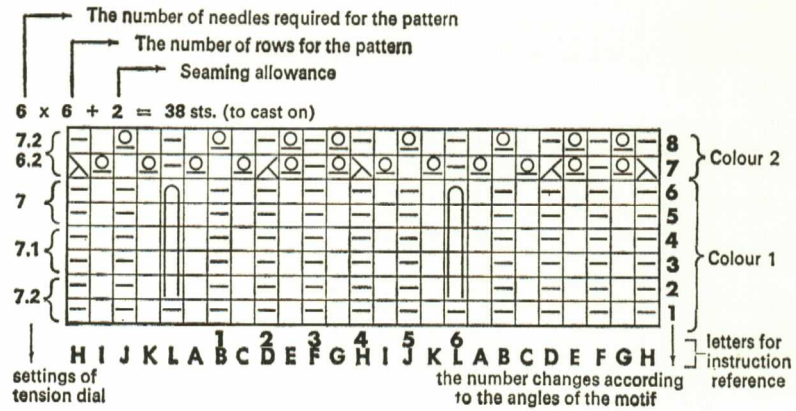
Though this edging is worked per diagram same as for diamond pattern sts. on machine knitting, transfer the sts. on the edge, first outward then inward to shape diamond patterns.

How about using it for the edges of a curtain.

This edging is worked vertically and used crosswise.

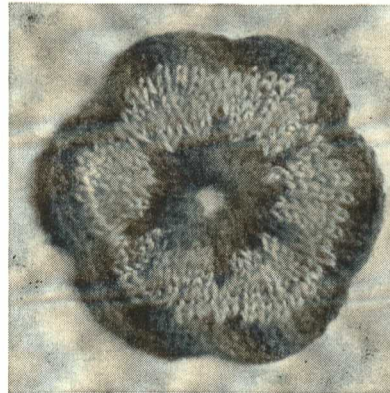
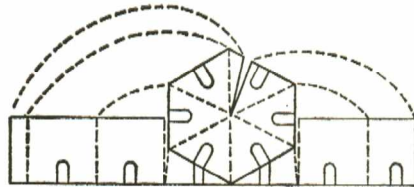
So, the length can be adjusted easily.

How to Read the Pattern Card For Circular, Hexagonal and Square Motifs



Open Pattern

(This can be applied for rectangle, square triangle and round motifs.)



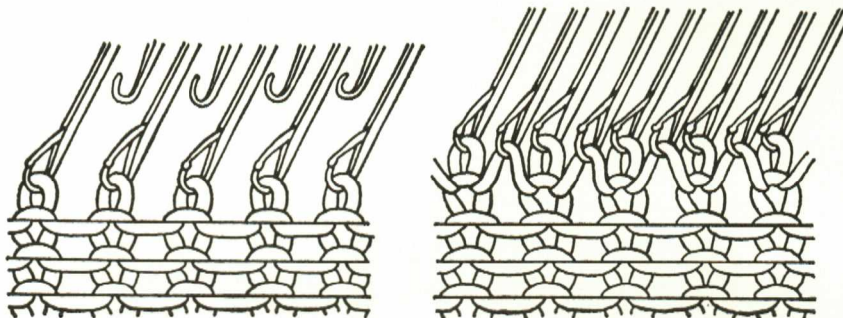
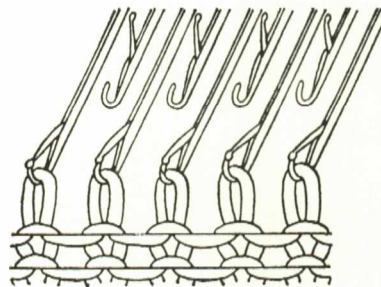
How to read the Symbols

1 As a rule, the blank portion of the pattern card means the needles for those sections are non operating.

(They are placed at NOP.)

2 O.....Place the needle which was rested in NOP to knitting position. Knit 1 row.

Drop the loop made on the needle and place the needle again to NOP.



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Cast on by hand in main colour, 38 stitches using alternate needles (in example these are lettered B, D, F, H, J, L with other needles A, C, E and I, K left in A position).

T7.2 knit 1 row.

Counting from left, bring 3rd and every following 6th needle forward to E position (i.e. every one lettered L) set machine so needles will remain in E position (i.e. check your HCL setting) knit 1 row.

T7.1 knit 2 rows.

T7 knit 2 rows.

Set machine so needles will return from E position (i.e. reset HCL).

Change to contrast colour.

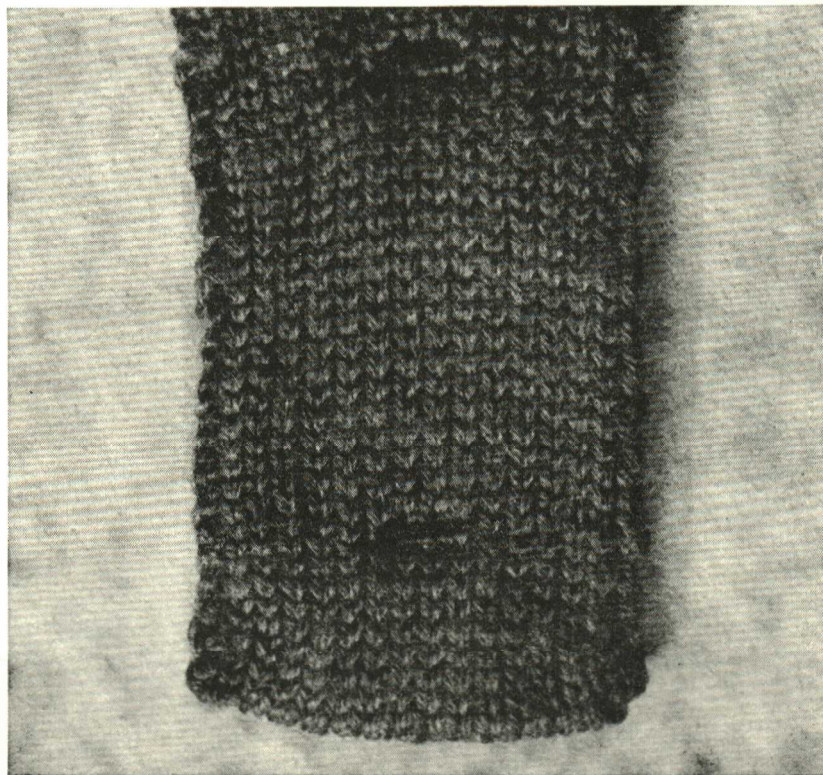
Transfer all stitches on needles J to needles H and then all stitches on needles B to needles D. Push empty needles J and B down to A position, bring forward all needles I, K, A, C, E and G to B position.

T6.2 knit 1 row.

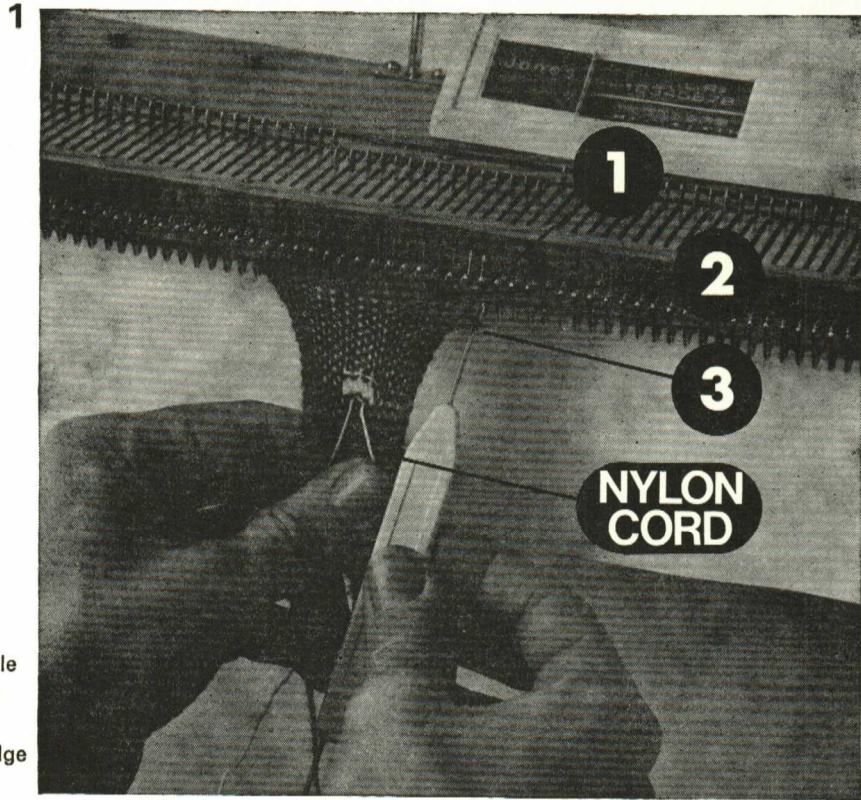
Now throw stitches off all needles I, K, A, C, E and G and replace needles to A position except needles E and G which should be left in B position. Bring forward from A position needles J and B to B position. T7.2 knit 1 row, throw off stitches on needles J, B, E and G and thread a piece of wool through the stitches that remain (i.e. on needle H, L, D and F) pull tight and sew up.

A Facing Edge or Buttonhole Strip

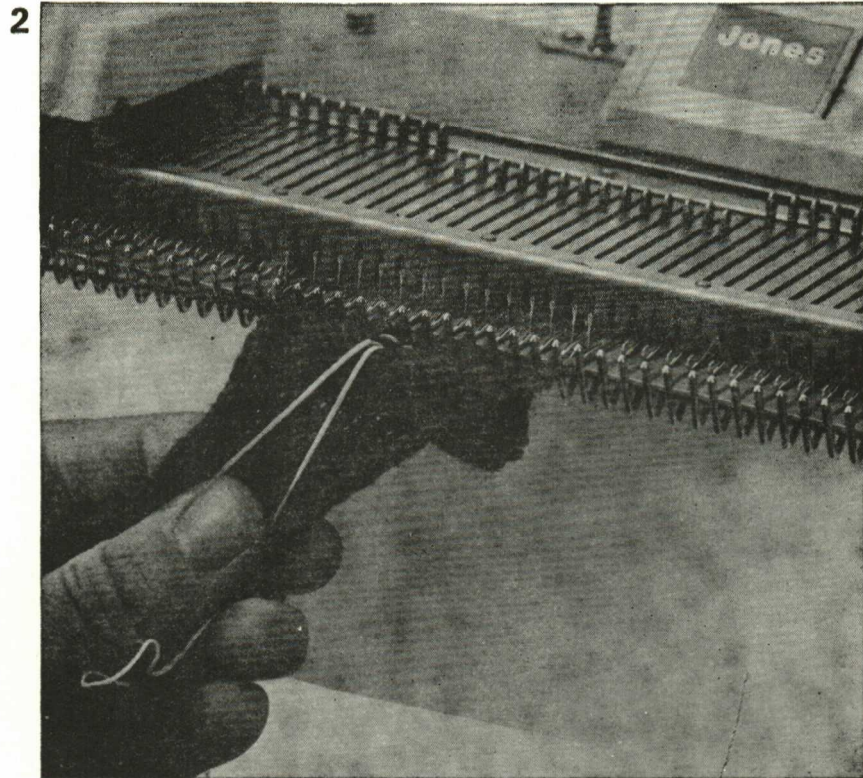
Cast on 15 stitches. Knit 8 rows. Bring forward the centre 3 stitches to 'E' POSITION. Take the NYLON CORD supplied. Knit these three stitches by hand onto the NYLON CORD. Now knit a further 20 rows. Repeat with NYLON CORD. Knit 9 rows. Then on loose tension knit 1 row. On our sample this is where we are about to turn back and the loose row is for a fold. Knit 1 row on original tension. Pick up the loop at either edge from the row below the loose row (1). Replace on the edge stitch. Repeat this every row until you have knitted 10 rows on the original tension after the loose row. Remember to hook the stitch at either edge each row. You will appear to be making a pocket (2). You should now have reached the row on the original knitting where you used the NYLON CORD. Taking care not to split or catch the wool or NYLON CORD replace the wool stitch into the needle as in diagram (3). Push the needle forward so that the stitch already in it passes behind the latch but the stitch you have just placed on it stays in the hook (see 4). Now pull the needle back so the stitch knits off. Transfer this stitch on needle to the left (5) hook the next stitch on the NYLON CORD onto this needle with two stitches on it and push the needle forward so that the two stitches pass behind the latch and the new one stays in the hook and then knit the two off over the new one by pulling the needle back. Move this stitch one position to the left and repeat the operation (6). When you have picked up all the stitches (i.e. in this sample 3) in this way you should transfer the last stitch on needle to the left and this will then leave 3 empty needles (7) onto these three empty needles replace the three stitches on the other side of the NYLON CORD (8). The NYLON CORD can then be pulled out from this buttonhole or left in until the buttonhole strip is finished, then removed. Then continue knitting remembering to pick up the edge stitches every row until once again you come level with the NYLON CORD on the first buttonhole. Repeat the operation above and then continue to the end and cast off loosely. This will have made you a small firm buttonhole facing.



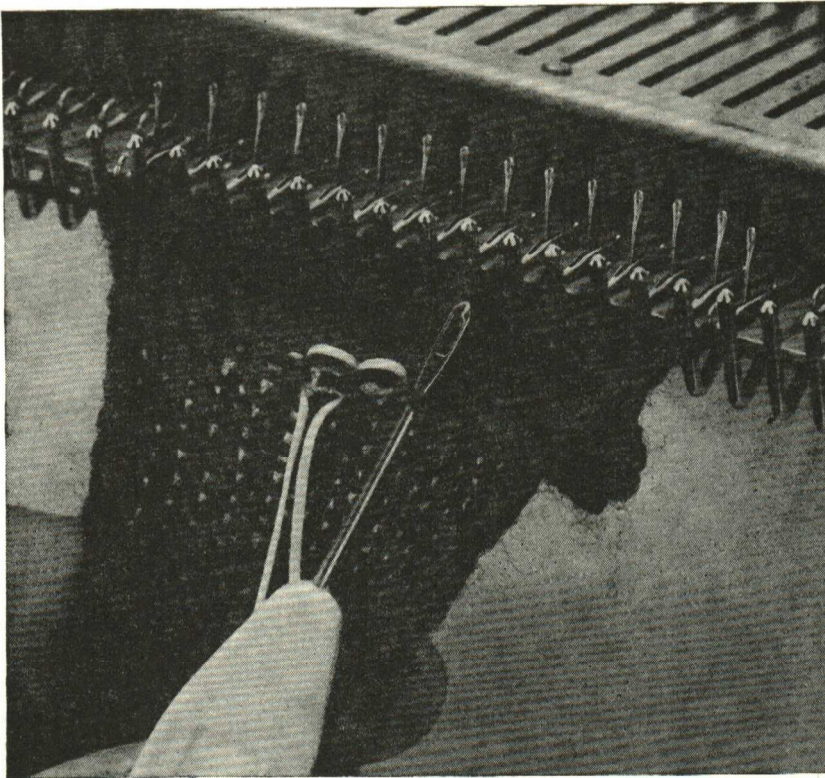
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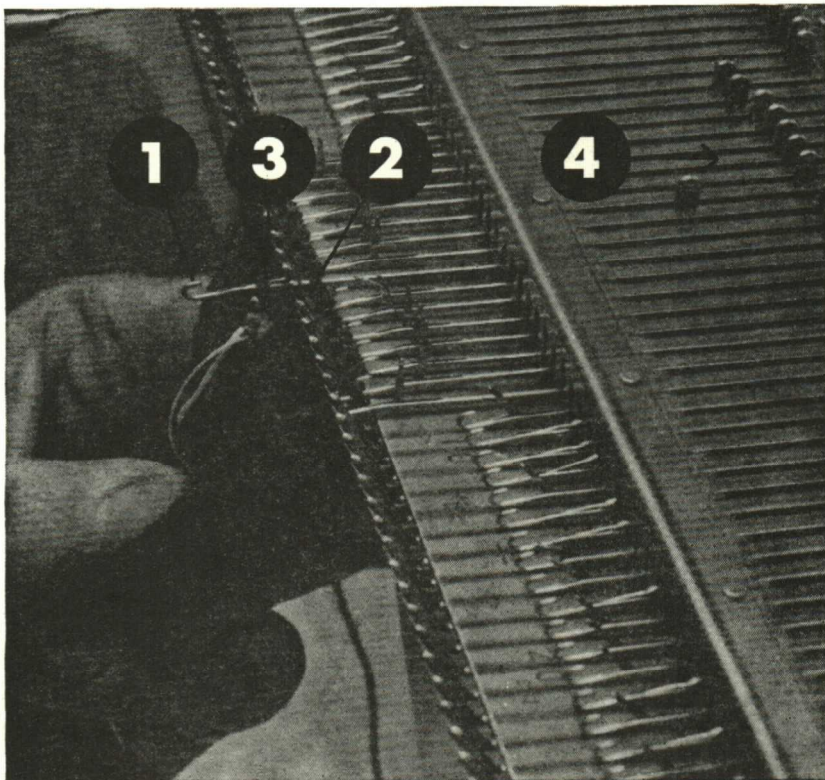
- 1 Edge needle
- 2 Loose row
- 3 This loop back onto edge needle



3

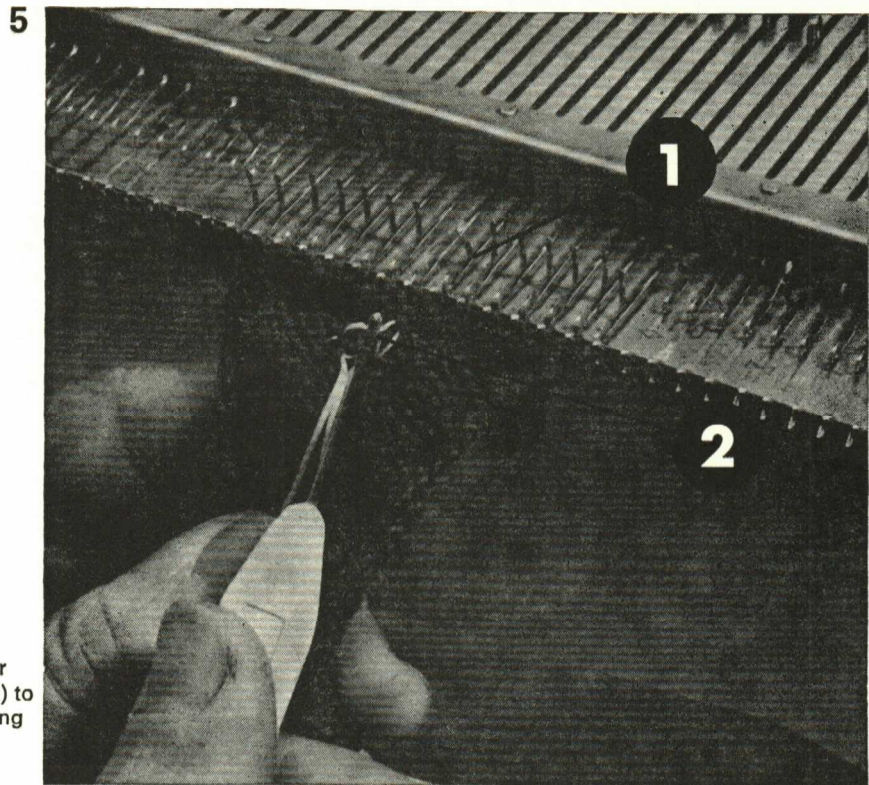


4

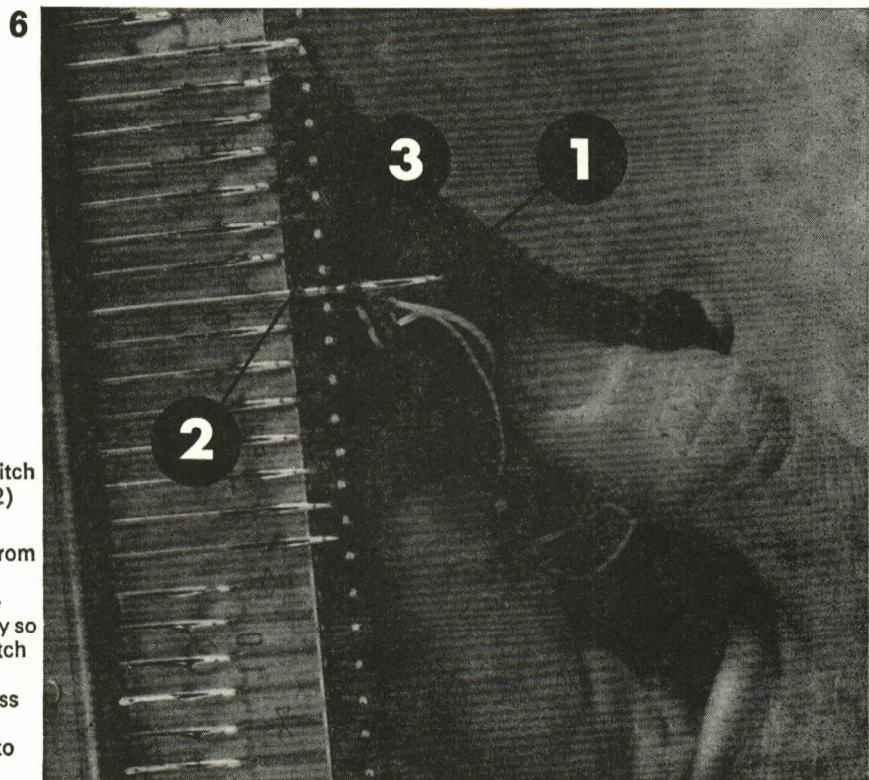


- 1 Needle (L)
- 2 Existing stitch
- 3 Replaced stitch
- 4 Push carefully so that new stitch is formed

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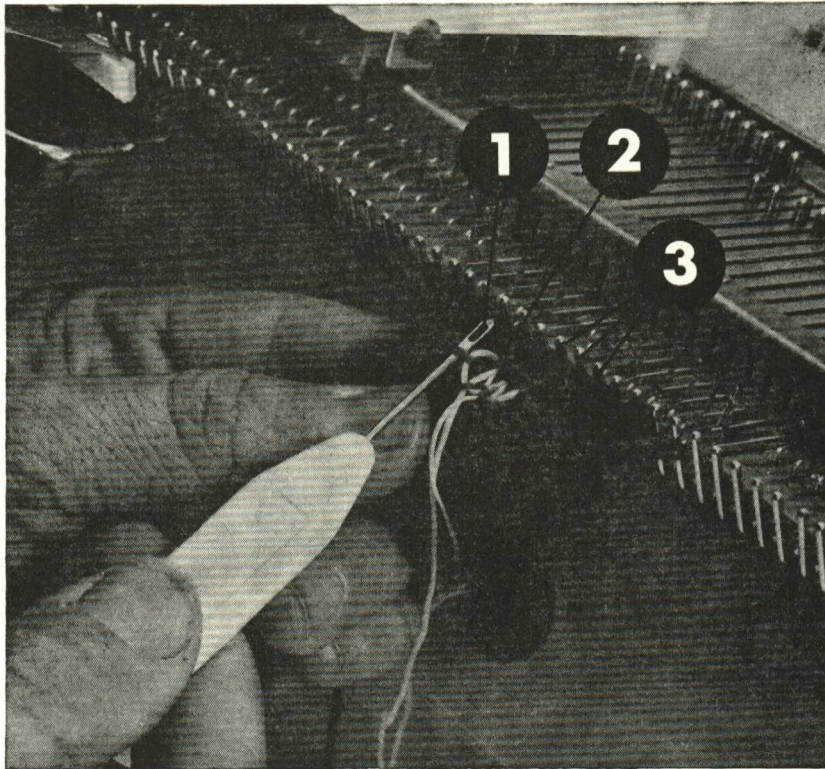


1 & 2
Now transfer
this stitch (2) to
the left leaving
needle (1)
empty.



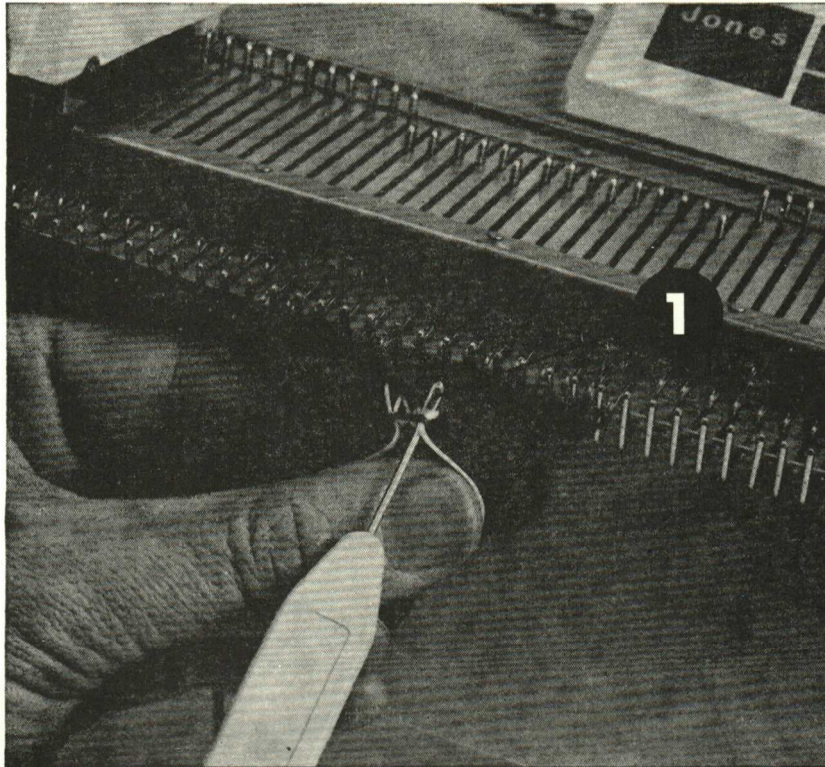
1 Needle
2 Existing stitch
on needle (2)
3 Stitch
transferred from
needle (1)
Push needle
butt carefully so
that new stitch
is formed.
Repeat across
width of
buttonhole to
last stitch.

7



- 1 Stitch transferred from needle (3)
- 2 Existing stitch
- 3 Three empty needles

8



- 1 Replace stitches from below nylon cord onto the three empty needles

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Aran-style machine knitting

A really simple way to make the most complicated-looking styles; jerseys, dresses, cardigans, garments for all members of the family. Even a beginner can tackle this, and be delighted with the result.

Aran Knitting effects are achieved by using a simple stocking-stitch pattern and adding the design by applying on knitted tubing and bobbles before sewing up the garment.

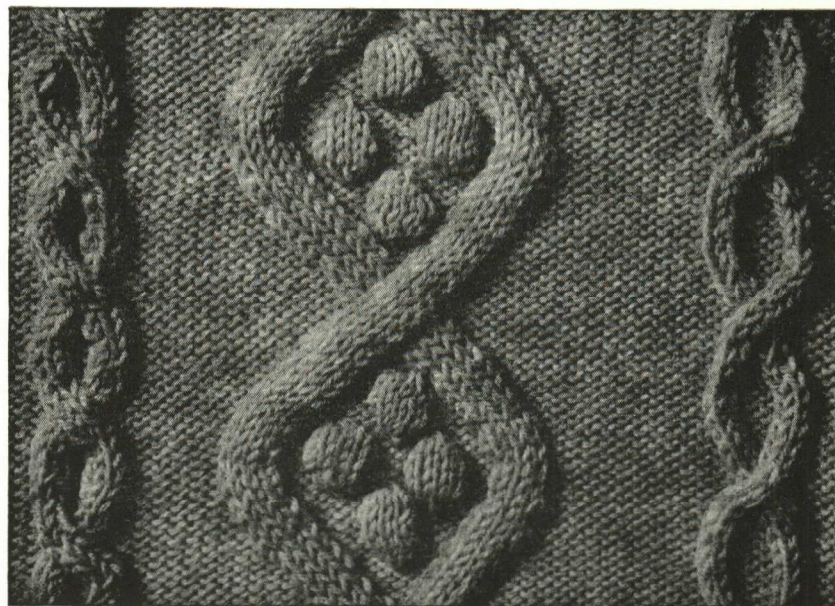
Introduction

The aim of this section is to show how to transform plain, quickly knitted garments into Aran-styled or Cable trimmed garments. It contains ideas as well as instructions as the different trimmings created can be used in many different ways, on their own or combined one with another to give a completely individual touch to a cardigan or dress, a pullover or coat, or indeed any knitted item.

There are designs included, but you will also find it easy to create others from the diagrams numbered 3 to 10.

The main points are as follows:

- 1 Any stocking-stitch pattern can be used.
- 2 The garment can be made using either the plain or purl side as the right side, according to the effect required.
- 3 Tubular knitting is used to make the patterns and this is made in varying widths to give different effects.
- 4 Bobbles are also used.
- 5 The tubular strips are applied on to the garment pieces to make the pattern, e.g. cables, diamond patterns, plaits etc.
- 6 More elaborate designs can be used by using an automatic pattern for the basic garment instead of stocking-stitch.



Instructions for the trimming

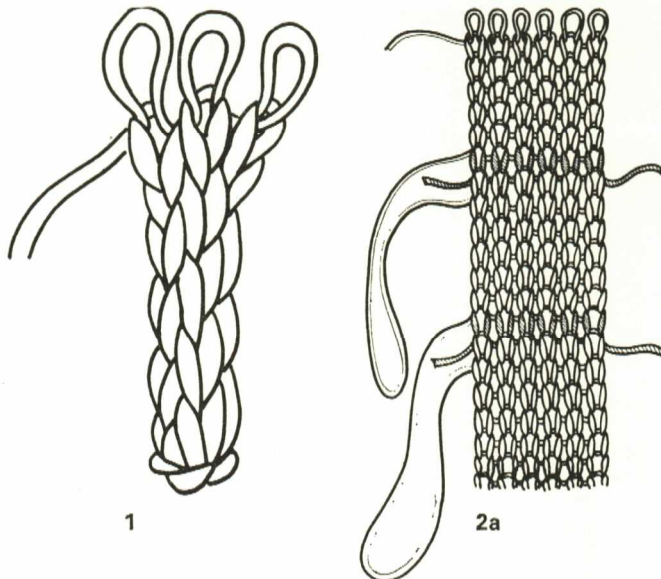
(4-ply wool is recommended for this type of work).

Tubular Knitting

Using the same wool and the same tension as for the main part of the garment to be trimmed. The width of the tube will depend on the number of stitches used. Cast on 3, 4, 5, or 6 needles. Depress right PART button. Pull down the fabric with the left hand and move the carriage with the right hand. Continue to the required length. (See Figure 1).

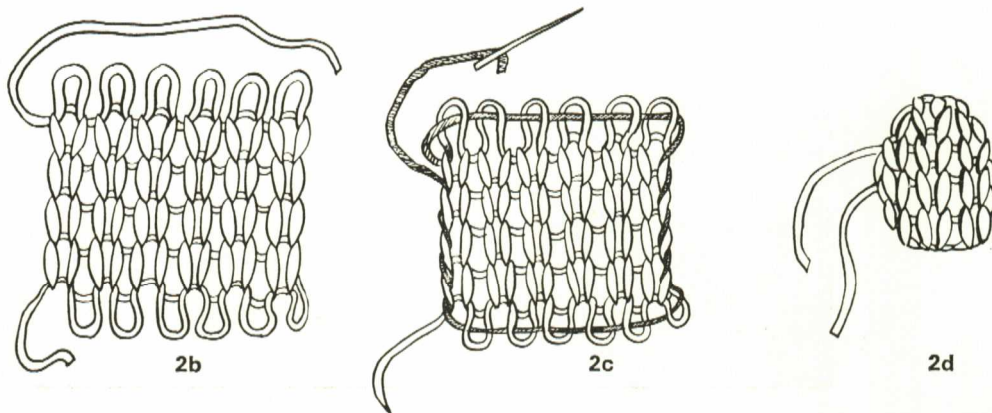
Bobbles

Cast on 6 stitches by hand. * Knit 6 rows. Lay a contrasting piece of waste wool across the needles and knit manually (i.e. operate the needles individually instead of moving the carriage across). Leave at least 9 inches of wool hanging before resuming. (This will be used for sewing up the bobble). Repeat from * for each bobble required. (See Figure 2a).



To make up the bobbles

Cut strands of wool left for sewing up once, about $1\frac{1}{2}$ ins. from edge, leaving a long end and a short end. Press strip of knitting with a damp cloth. This will prevent any unravelling. Pull out waste wool knitted in at every 7th row, thus separating the work into small sections. (See Figure 2b). Gather up each bobble by threading the long end of wool into a darning needle and thread through each stitch loop at top, thread along side, then through each stitch loop at the bottom, and thread along the remaining side (Figure 2c). Draw up the thread and tie to the short end of wool left hanging. Do not cut off the ends as these can be used to sew the bobble on to the garment. (Figure 2d).



How to use the trimmings

- Figure 3. Diamond pattern made with two lengths of tubing, and bobbles.
- Figure 4. Open cable made with 2 strips of wider tubing.
- Figure 5. Closed cable made with two lengths of wide tubing.
- Figure 6. Plait made with three lengths of tubing.

Brother home knitting tuition Lesson 7

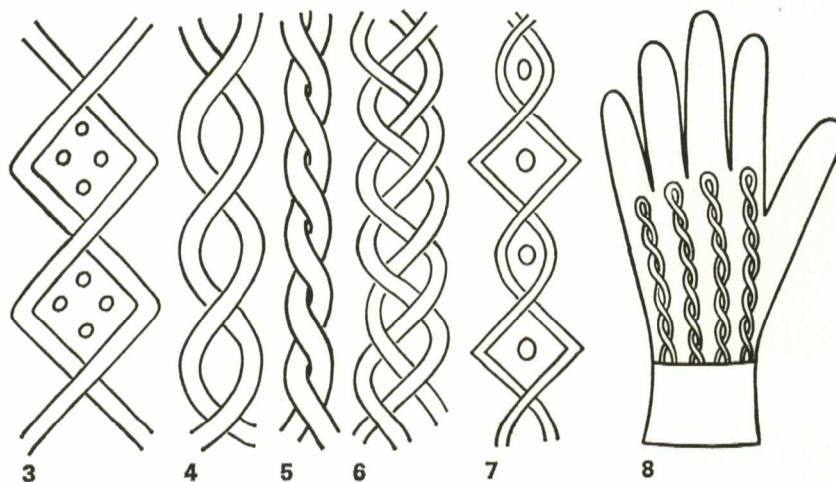
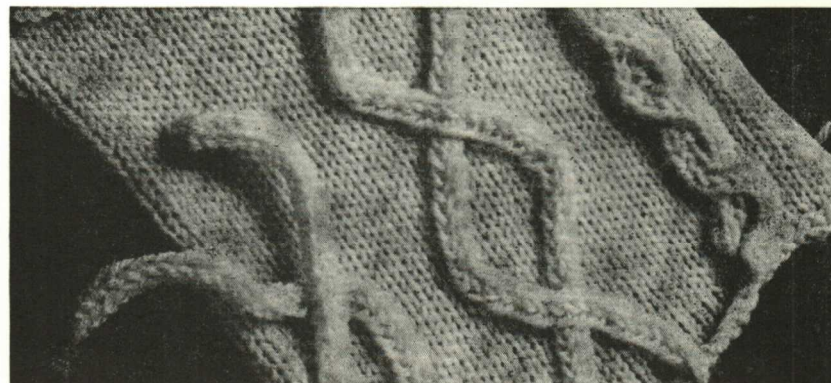


Figure 7. Alternate cable and diamond pattern with bobbles.

Figure 8. Cables are shown here as an attractive trimming for a plain glove.

Figure 9. A coat or long cardigan can be effectively trimmed with cables.

Figure 10. A plain dress lends itself to an Aran-style design



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Figure 11. Half cable and bobbles.

Figure 12. Sweaters can be trimmed lavishly with Aran-style patterning.

- 1 Choose a basic pattern for the garment and decide the type of trimming to be used. Remember when ordering the knitting wool to allow sufficient of the same wool for the applied trimming. To estimate roughly the amount of tubing required, measure the length of the pattern panel. Multiply by three for each strip of cable or diamond, or by one-and-a-half for a zig-zag or half-cable strip.
- 2 Knit the basic garment but do not sew it up.
- 3 Knit the tubing to the required total length. (It can be cut into shorter pieces as required.)
- 4 Knit the required number of bobbles and sew them up. (See figures 2a, 2b, 2c and 2d).
- 5 Press the garment pieces and if the edges are inclined to curl, pin or tack them to a sheet of paper, or alternatively pin to an ironing board while arranging the tubing in place.
- 6 Mark out guide-lines for the pattern, on the garment with chalk or pins, using a tape measure to ensure correct spacing. (See figure A).
- 7 Mark with pins the points where the pieces of tubing will cross or change direction. Again use a tape measure for accurate spacing. (See figures A and B).
- 8 Pin the tubing in place taking care to cross over the pieces in the correct direction to create a balanced pattern. (Figure B).
- 9 Stitch the tubing *loosely* in place with matching wool or transparent thread. This can be done invisibly on the 'wrong side' of the work by just catching down the underside of the tubing with a running thread. (Take care that the sewing thread is not pulled tight as it is essential for the tubing to stretch naturally with the main knitted fabric.) Tuck in any ends of tubing and sew securely to avoid fraying.
- 10 Pin and then stitch the bobbles in place.
- 11 Repeat with the other sections of the garment.
- 12 When all the pieces have been trimmed, sew up in the usual way.

