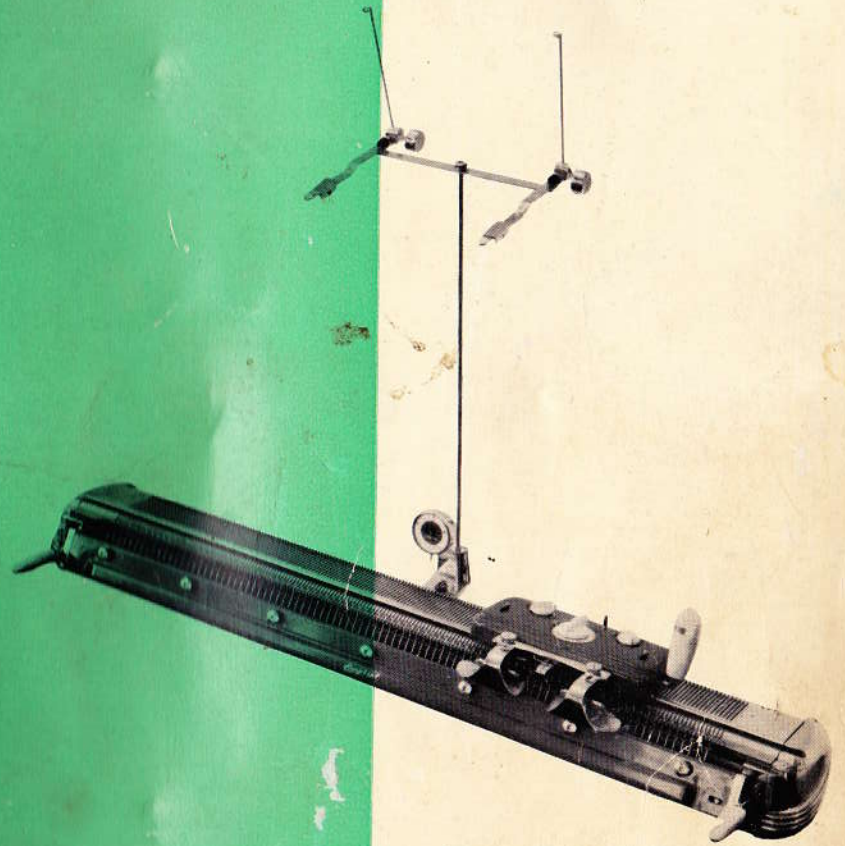


instruction manual



How to master your

BROTHER[®]-KNIT

automatic home knitter

BROTHER SEWING MACHINE MFG. CO., LTD.
NAGOYA, JAPAN.

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BROTHER HOME KNITTER CORPORATION

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Western Office: 1058 South Flower Street, Los Angeles 15, California

Introducing Your

BROTHER-KNIT

Just as the sewing machine once outdated hand-stitching, new automatic knitters are today replacing the old-fashioned custom of knitting by hand. Those of us who appreciate the luxurious beauty of fine knitted garments can thank these new knitters for giving us a faster and easier method to accomplish in minutes the beautiful work which formerly took days and weeks.

The BROTHER-KNIT is the most compact and complete home knitter ever built. It hand-knits at a fraction of the former time—yet in result cannot be told apart from two needle knitting! Follow standard hand-knitting instructions, do any stitch, like cables, argyles, horizontal or vertical designs, and use all weights of yarn. Even if you've never knitted before, you will see professional result instantly.

All shaping such as increasing, decreasing, neck openings and buttonholes, are done directly on BROTHER-KNIT and a tremendous feeling of satisfaction is derived from seeing the knitted fabric literally grow before your eyes.

The manufacturer of BROTHER-KNIT, the Brother Sewing Machine Manufacturing Co., Ltd., is one of the world's largest and most modern industrial powers.

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WHAT IS AN AUTOMATIC KNITTER?

Your **BROTHER-KNIT** is a **fully** automatic knitter. It knits 180 stitches with a single stroke. Your **BROTHER-KNIT** is a multiple knitting needle which is based on the latch needle principle.

INTRODUCING A BROTHER-KNIT LATCH NEEDLE

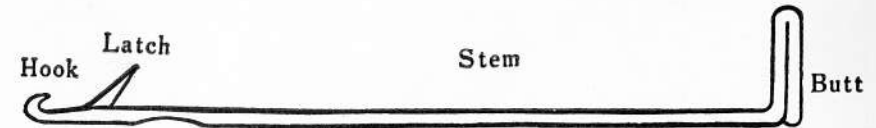
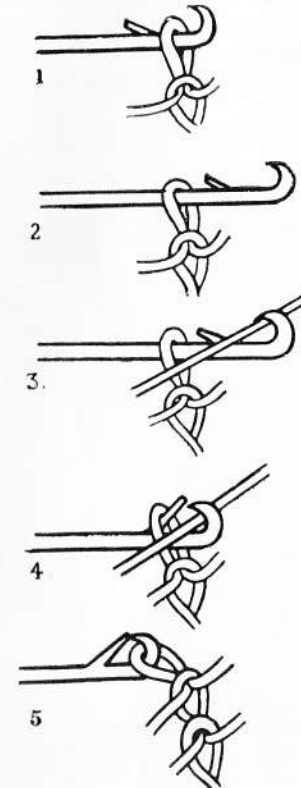


Fig 1

The needles function in three different positions within the needle bed. Let us explain how the latch type needle in the **BROTHER-KNIT** forms a stitch identical to a hand-knitted stitch.

HOW A STITCH IS FORMED



How a stitch is formed?

- No. 1 The needle is in the knitting position and Stitch A is hanging from the needle hook.
- No. 2 The Cams of the Carriage have commenced to raise the needle and now the needle is forward and Stitch A is below the needle latch and is hanging onto the needle stem.
- No. 3 The needle has reached its maximum forward position in the needle groove. Stitch A is hanging on the needle stem, while the yarn feeder has placed a new thread in the hook which will be formed in the next Stitch B.
- No. 4 The needle is returning on its rearward course, pulling the one stitch B with it. The old stitch A is at the same time coming nearer to the latch and will then close the latch, locking the new stitch B to be locked inside the needle hook.
- No. 5 The needle has completed its rearward passage. It has pulled the Thread B through the Stitch A, thus making a completely new stitch B. This is now hanging onto the needle.

Fig 2

Positions of the needles are :

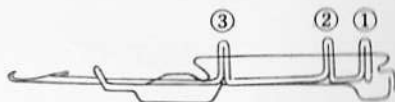


Fig 3

1. Resting or Non-knitting position.
All the way back to base of needle bed.
2. Knitting or working position.
Needles forward about an inch from base of needle bed.
3. Holding position or Partial Knitting position.
Needles forward as far as they will go.
This position is used for double purpose depending on the cam's arrangement on the carriage and so, this position is called "Holding" position or "Partial Knitting" position.
In Partial knitting, needles only in this position are knitted.
Used as the holding position, needles in this position do not knit, even when the carriage passes over them.

DETAILED DESCRIPTION OF THE BROTHER-KNIT

A. CARRIAGE: The heart of the knitter

The Parts of the Carriage:

1. Tension Regulating Knob: To regulate the tension of yarns, as well as the size of stitches.
2. Tension Dial: Shows the tension numbers.
3. Tension Indicating Line: To indicate the tension number you set.
4. Row Counter Tripper: (Pull out), Trips row counter lever into action.
5. Yarn Feeder: Feeds the yarn to the needles.
6. Brushes: Open and clean the latches of the needles.
7. Brush Holder: To hold the brushes and the sinker plates.
8. Sinker Plates: To hold the sinker wheels.
9. Sinker Wheels: To Keep the position of the garment during knitting.
10. Sinker Plates Thumb Screws: To set the sinker plates to the brush holder.
11. Grip Handle: The handle for moving the carriage.
12. Lower Cam Strip: Separates the working needles from the lower resting needles.
13. Rising Cam: Controls the raising of the working needles when knobs 14 are set to position K or T. But when the knobs 14 are set to F the rising cams do not effect the working needles.
14. Two Rising Cam Knobs: To move the position of the rising cams.
15. Carriage Releaser.
16. Carriage Rails.
17. Stitch Cam: Controls the lowering of the working needles.
18. Pendulum Cam: Guides the working needles to the stitch cams.
19. Holding Cam Strip: Separates the working needles from the upper resting needles.
20. Holding Cams: Control the positioning of the needles in the forward location.
21. Two Holding Cam Levers: To control the position of holding cams.

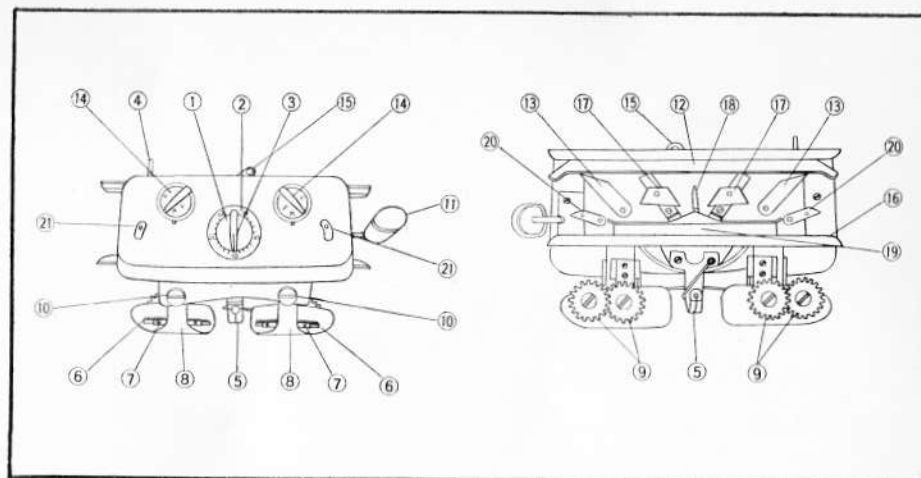


Fig 4

RISING CAM KNOBS

Both rising cam knobs are identical and can be turned in clockwise or counter-clockwise direction.

To adjust to any of the positions set the letters K (for knitting), F (for Partial Knitting or Fair Isle Patterns) and T (for Tucking) on the knobs to the mark on the carriage cover. Set the cam knobs for the type of knitting you desire.

HOLDING CAM LEVERS

These levers control the movement of the needles when the needles are in the positions shown in Fig. 3.

Although referred to by different names, the holding position is identical to the "partial knitting position" insofar as the actual needle is concerned. However, when the holding lever is "down" the needles in holding position will not knit (as they would have done for partial knitting operation if the holding lever had been up).....they remain stationary and only the normal knitting position needles will knit. As soon as the holding lever nearest to the knitting is put up again, the holding position needles will again knit, as will be explained in Page 47.

NOTE: The difference between the Holding Position and Partial Knitting Position will be more easily understood by the following example. Put ten needles in the Partial Knitting position (See P. 28 — Rules For Partial Knitting) by placing them in position (3) Fig. 3, the Holding Cam Levers "up" and the Rising Cam Knobs on "F", move the carriage across the bed. You will see that the needles are moved by the carriage back to normal knitting position. Now push these 10 needles again to Partial Knitting Position but put the Holding Cam Levers "down"; move the carriage across again and you will see that the needles remain where they are.

To Prepare Your Machine for Knitting

Important Note: For all normal knitting the Holding Cam Levers will remain in the "up" position and you should periodically check to see that they are not put "down" by accident.

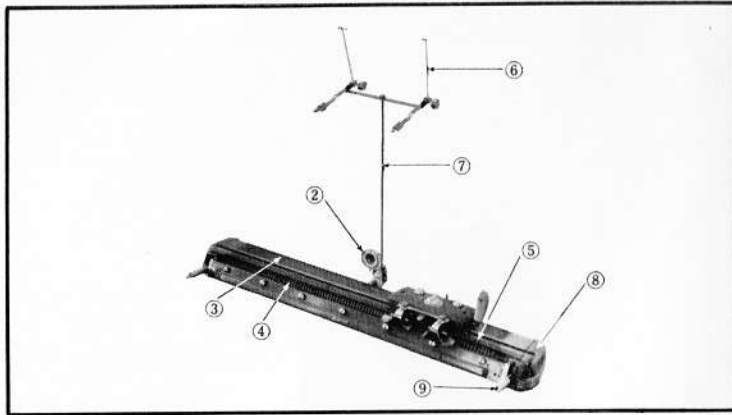


Fig 5

B. THE CARRYING CASE AND THE NEEDLE BED:

The Parts:

1. Portable carrying case.
2. Row counter : Automatically counts rows.
3. Needle bed: Body of the knitter.
4. Needle bed teeth: Comb-like front of the needle bed.
5. Guide rails: To guide the carriage.
6. Automatic yarn feeder.
7. Automatic yarn feeder upright rod.
8. Needle bed end piece.
9. Needle bed side frame: Serves as a needle bed side frame, and also receives the purl comb unit.

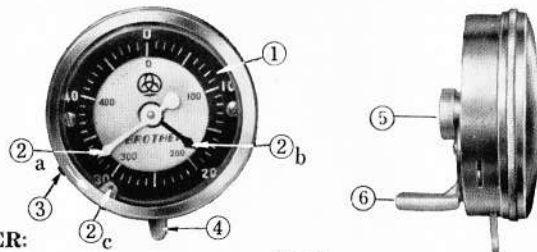


Fig 6

C. THE ROW COUNTER:

The Parts:

1. Row counter dial : Shows the number of the rows knitted.
2. Hands of row counter : Indicate the number of rows knitted.
 - a) Long hand registers single rows knitted.
 - b) Short hand computes multiples of ten.

c) Movable red arrow on frame permits pre-setting to alert you to number of rows desired.

3. Row adjuster : If you push this down, you can move the hands of row counter forward and backward by turning the regulating screw.
4. Row counter lever : Counts the rows as it contacts carriage tripper row by row.
5. Regulating screw in rear : To turn the hand of the row counter.
6. Row counter bracket : To be slid onto the bracket of the removable bracket.

D. REMOVABLE BRACKET : To which the Row counter and the Automatic yarn feeder upright rod is attached. This bracket is fastened to the fixed bracket of the machine bed.

1. Slides on fixed bracket of machine bed.
2. Slot engages thumb fastening screw of machine bed bracket.
3. Receives Row counter bracket.
4. Row counter fastening screw.
5. Receives the Automatic yarn feeder upright rod.
6. Automatic yarn feeder upright rod fastening screw.

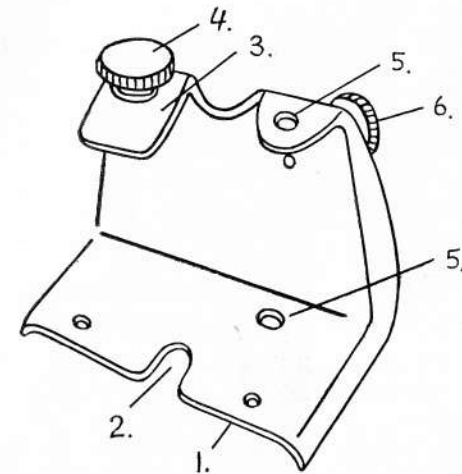


Fig 7

HELPFUL ACCESSORIES FOR THE BROTHER-KNIT

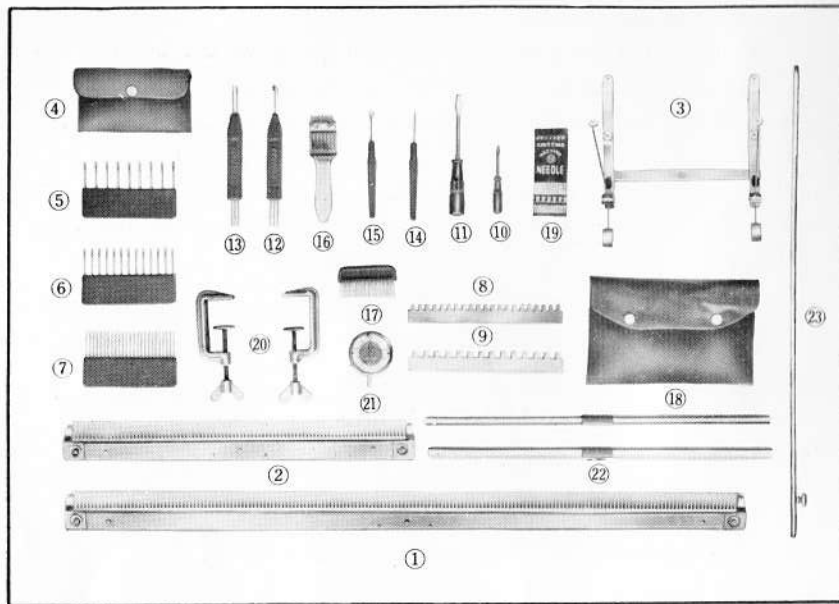


Fig 8

- | | |
|-----------------------------|---|
| 1. Large cast-on comb | 13. 2×3 transfer tool |
| 2. Small cast-on comb | 14. Hook |
| 3. Automatic yarn feeder | 15. Latch tool |
| 4. Small plastic kit | 16. Multiple tool |
| 5. Three by one eyelet comb | 17. Hand brush |
| 6. Two by one eyelet comb | 18. Large plastic kit |
| 7. Twenty-five eyelet comb | 19. Spare needles |
| 8. One by one needle pusher | 20. Clamps |
| 9. One by two needle pusher | 21. Row counter |
| 10. Small screw driver | 22. Protecting guards for needle bed comb |
| 11. Large screw driver | 23. Automatic yarn feeder upright rod |
| 12. 1×3 transfer tool | |

PREPARING THE BROTHER-KNIT

1. Open the case and remove all loose accessories.
2. Take out your knitter from the case, place on the edge of any firm table or flat surface.
3. Fasten the machine to the table by table clamps. See Fig. 10.
4. Take out the grip handle from the carrying case and screw it on the handle stud of the carriage. See Fig. 11
NOTE: Do not screw the handle down all the way but just one turn before the bottom. See that the chrome part faces to the left.
5. Attach the Removable Bracket to the fixed bracket on the machine bed, and fasten it securely with the thumb screw of the fixed bracket.

6. Attach the Row Counter part 6 to part 3 of the removable bracket and fasten securely with thumb screw 4.

7. Take the automatic yarn feeder upright rod 23, Fig. 8, and place it into the removable bracket hole 5 and fasten it securely with the thumb screw on the arm rod.

8. Place the automatic yarn feeder on top of the automatic yarn feeder rod.

9. Remove the Protecting Guards from the needle bed teeth.

10. Push all the needles to the back of the machine bed.

11. Slide the carriage over the bed so that it will come to rest at either the extreme right or left ends of the bed.

12. Now, pull out the row counter tripper, Fig. 12, and you are ready to knit.

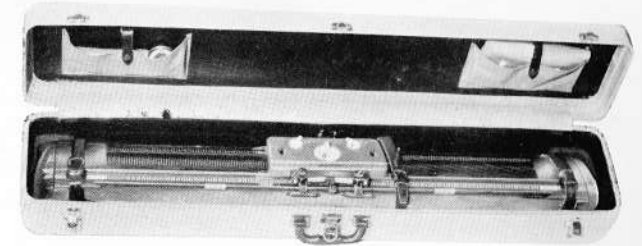


Fig 9

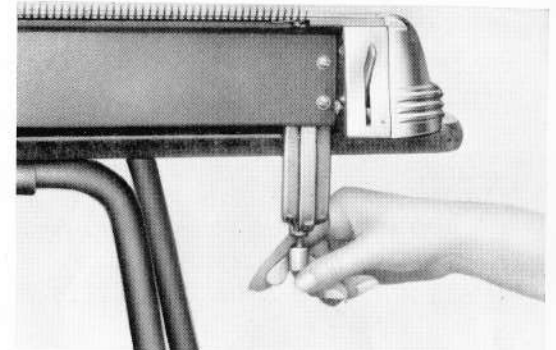


Fig 10

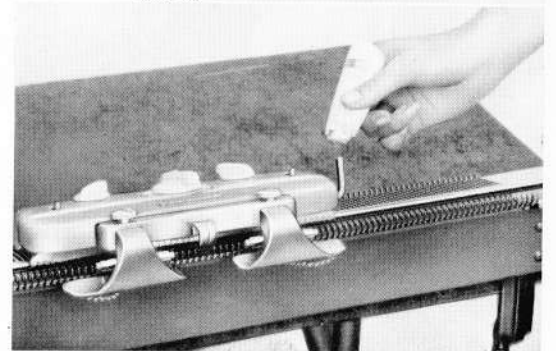


Fig 11

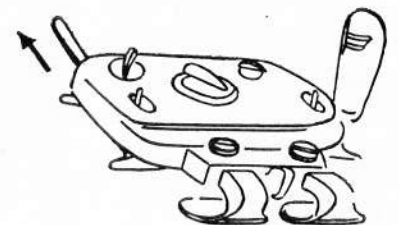


Fig 12

LET'S PREPARE FOR KNITTING

1. Unwind the skein of yarn into a box or basket where it can unwind freely. Let the basket, or box with yarn, stand in the center of the table near the middle of the open knitter.

The yarn should pass from the back toward the front through the opening in the branch tension arm. (See "How to use the branch tension arm")

2. The yarn should then be brought down and led through the two openings in the yarn feeder in the center front of the carriage.
3. Leave the yarn hanging out of the yarn feeder about 4 inches.

HOW TO SET THE TENSION

1. Set your tension to the proper gauge by turning the tension regulating knob until tension dial indicator (arrow) points to the desired number. (See Fig. 13.)

PLEASE NOTE : For casting on, a slightly looser tension is suggested. 15 is suitable for any yarn.

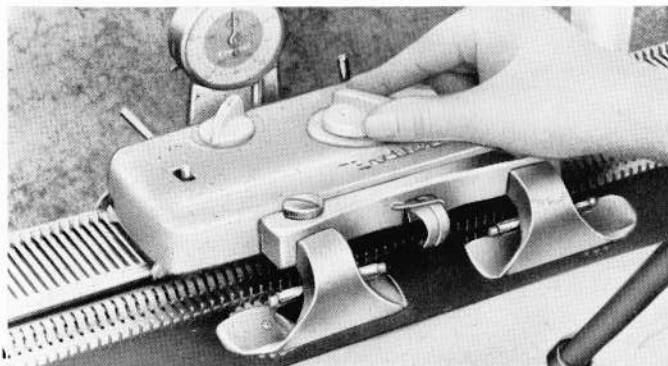


Fig 13

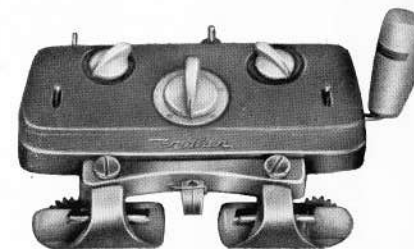
2. Set the rising cam knobs on the carriage to desired type of knitting, position "K" for basic or stockinette stitch.
3. Push the row counter tripper away from you as shown in Fig. 12.
4. Set the hand of the row counter on "O" simply by turning the screw in back of it clockwise, or counter-clockwise.

NOTE : Do not slide the carriage off the Knitter. Let it rest on either extension leaf.

WHAT IS TENSION ?

When knitting either the two-needle or modern BROTHER-KNIT way, your tension or gauge determines the tightness or looseness of the stitches and thus the actual size of the knitted garment. Your fingertip controlled tension dial on the BROTHER-KNIT, permits an amazingly wide range of tension variations. The larger the numbers set on the dial, the looser will be the resulting gauge or tension. This is comparable to the different number knitting needles used in two-needle knitting. When comparing your gauge to hand-knitting gauge instructions, you count the number of stitches per inch across, and the number of rows down, per inch. Based on this mathematical approach, it soon becomes a simple matter to create your own garments on BROTHER-KNIT, with assurance that the size will be correct. It is recommended to always make a small test swatch before starting a garment to prove correctness of gauge.

Fig 14



RECOMMENDED TENSIONS AND YARNS FOR YOUR BROTHER-KNIT

FOR THE BEGINNER : 2 or 3 ply yarns are best to practice with. The following are recommended tensions for common yarns :

Type of Yarn	Set Tension Dial To :
2 or 3 Ply Zephyr	10 to 13
Cashmere	5
Baby Yarns	5
Fingering Yarns.....	10
Sport and Sock Yarns	10-13
Pompadour.....	8-10
Worsted (use alternate needles)	19-20
4 Ply Yarns (use alternate needles)	15-20
Dress Yarns (Boucle, Velveen, etc.)	15-18
Metallic with Velvet.....	18
Crochet Thread	2-5
Mohair (alternate needles).....	20

GENERAL RULES FOR CORRECT TENSION

1. The width of one loop should be wide enough to hold two strands of the same yarn with ease.
2. Avoid tensions that are too tight. Cotton, silk and rayon require a rather firm tension.

ADAPTING STANDARD HAND-KNITTING INSTRUCTIONS TO BROTHER-KNIT

Based on your understanding of the gauge or tension, it is comparatively simple to adapt standard hand-knitting instructions to your BROTHER-KNIT. Follow these simple rules when adapting from standard two-needle instructions:

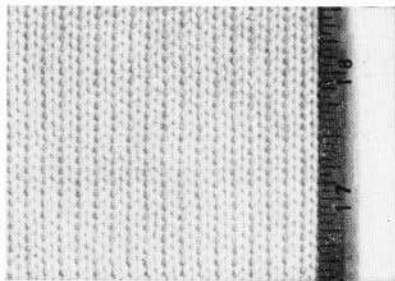
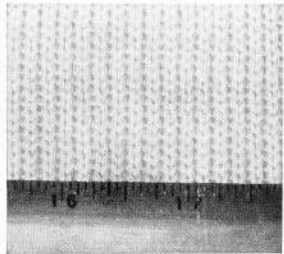


Fig 15

1. Determine the proper gauge by making a swatch. Knit a small test piece of about 30 needles, working 30 rows in several different tensions. Knit a single row of a different color between tension changes for easy identification. Block the swatch before measuring for correctness.
2. Select those hand-knitting instructions that best lend themselves to the Knitter.
3. Many intricate two-needle patterns may be closely reproduced by adapting a similar stitch with the same effect and texture, and with the amazing BROTHER-KNIT speed.

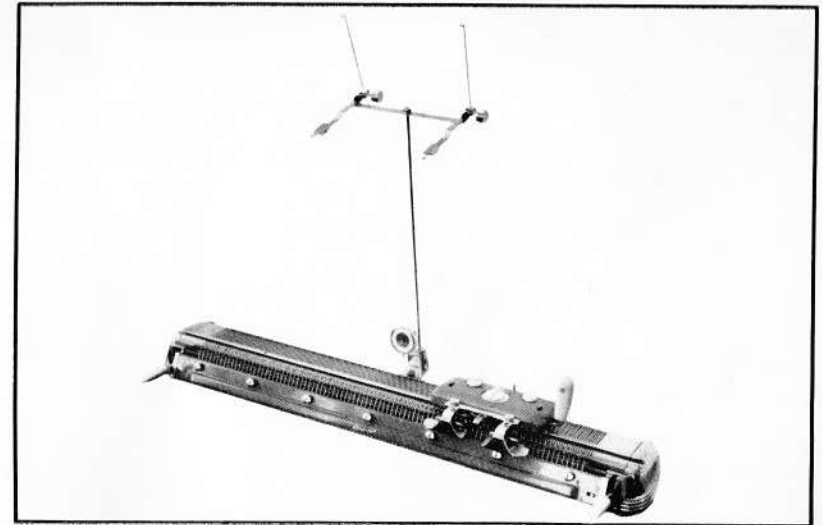


Fig 16

LET US START THE KNITTING STEP BY STEP

STEP 1 : The sliding motion of the carriage forms the knitting row by row. Each single movement knits one row. As the carriage moves across, the position of the needles move to form the stitches automatically! Slide your carriage to the extreme right (or left) making certain it does not cover any part of the needle bed. All needles are in the resting position (out of service).

STEP 2 : Bring toward you desired number of needles for casting on. Needles are numbered for your convenience. Needle No. "0", in the center; always have an equal number of needles on both side. Always have knitting in exact center.

IMPORTANT : All the unused needles must stay all the way back in their inoperative or resting position.

CASTING ON

Casting on stitches means making a first row of the foundation of the knitting. We will start with the simplest method for casting on, using the BROTHER-KNIT automatic cast on comb. Select large cast-on comb for full width or close to full width knitting, of the small comb for fewer stitches. The comb should be as wide or wider than the number of needles brought to knitting position.

CASTING ON WITH OPEN STITCHES : The open stitch method is often preferred if one wishes to join a border on the sleeves, neck opening, waist, etc.

1. Hook the cast-on comb over the gate pegs, engaging the small pins at the ends of the comb into the gate pegs so that the comb hangs in front of the machine, and be sure that the number "0" is approximately in the centre of the comb. If it is not, the knitting will be uneven as there will be more weight on one side.
2. Loosen the thumb screw on the sinker holder, and take out the sinker plates from the sinker holder. After the Second row, sinker plates should be attached to the carriage. (See Fig. 18)
3. Bring forward the desired number of needles you wish to knit on. Make sure that the needles protrude an $\frac{1}{8}$ " to $\frac{1}{4}$ " from the needle bed comb. (See Fig. 17.)
4. Check to see that the needles pass freely between the cast-on comb teeth.
5. Thread the yarn into the yarn feeder on the carriage.

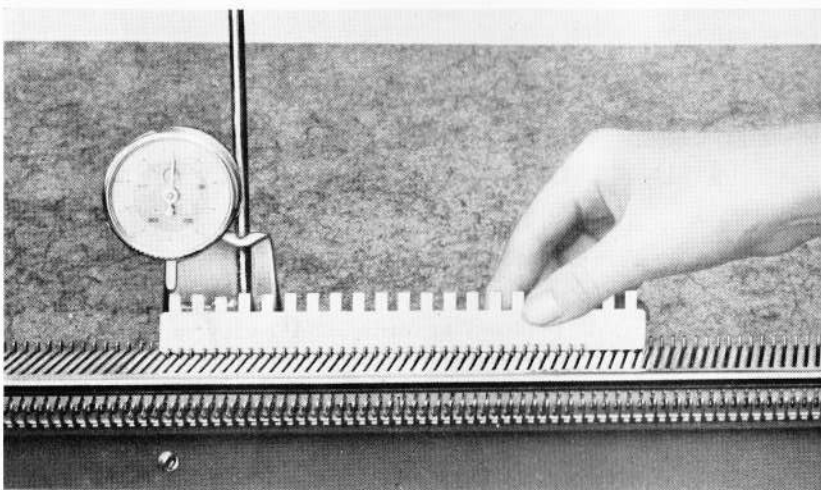
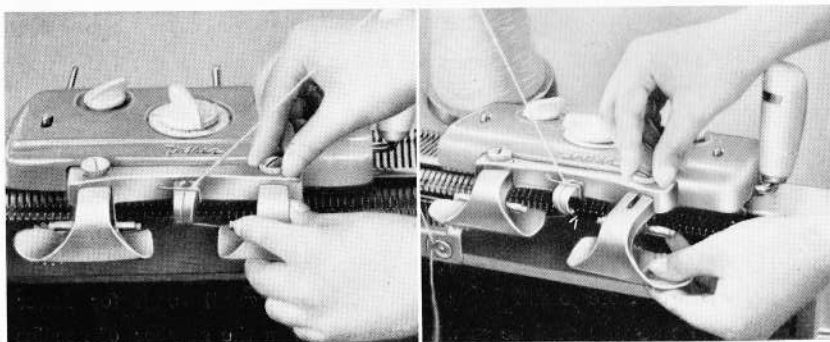


Fig 17



A

Fig 18

B

6. With your right hand on the handle of the carriage (if left-handed, with your left hand on the handle of the carriage), move the carriage slowly from right to left (or left to right) as you would move an iron — in one non-stop movement until you hear a "click" which tells you automatically that the carriage passed over all the knitting needles.

IMPORTANT: As you approach the end of the row, **KEEP THE YARN LOOSE** by drawing free yarn with your left hand. (This is only necessary for casting on.) Keep the carriage on the extreme left or right side.

Automatically cast on your first row. Always have your yarn fed with plenty of slack. You must now loosely guide the yarn as you begin each row. Proper yarn guidance will have you knitting smoothly and speedily. Gently pull up slack yarn, just enough to avoid looping until the carriage reaches the first needle in knitting position. When you feel the carriage "touching", the first needle in knitting position, release your "pull" or hold on yarn and move carriage across to complete your row of knitting. Notice a "click" as you complete the row to alert you that the carriage has moved sufficiently to finish the row. With just a little practice, this is done with an even, pleasant rhythm as the knitted fabric starts to grow. Incorrect yarn guidance or any unexpected tension caused by entangled yarn or knots, may cause a jam or dropping of stitches.

The jam proof carriage is an exclusive feature of your BROTHER-KNIT. In case of jamming, it is simple to release carriage with special lever in top of carriage. (See instructions further in book.) As with any new instrument, "practice makes perfect", and the gratification that is yours when the simple technique is mastered, is satisfaction indeed.

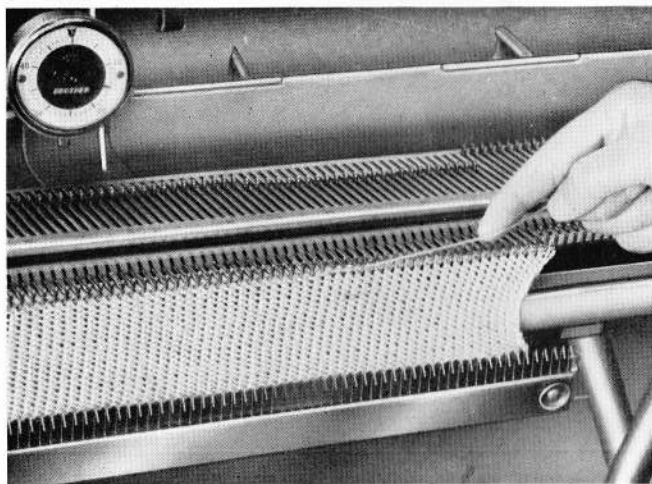
As the row counter will indicate, you have just completed two rows of knitting. Easy, isn't it! At the beginning, knit with slow, non-stop movements in both directions. NEVER STOP until you hear the "click". Do not stop in the middle of the row or try to go backwards while knitting — it will only move in one direction at a time. As you slide carriage for each row of knitting with your free hand, pull the yarn gently at the beginning of each row. Guide your yarn loosely and check that yarn feeds smoothly. **KNIT SLOWLY — SPEED COMES WITH PRACTICE.**

If you use the branch tension arm, you can knit by only right hand. Please, see instruction "How to use the branch tension arm" further in this book.

Carefully lift and unhook the comb from the gates and let it hang. Twist the loose end of the wool around the knob of the cast-on comb, so as to keep it out of the way.

FINISHED EDGE CAST ON

1. Use tension recommended for weight of yarn; knitter carriage to the right.
2. Hang cast-on comb on teeth of needle bed, centered and spaces clear for needles to come through.
3. Push needles to be used all the way up (partial knit position).
4. Open latches.
5. Fasten end of yarn with slip knot on left of knitter.
6. Loop yarn loosely around each needle from left to right, counter-clockwise. Loops must be behind latches.
7. Thread yarn feeder on carriage and knit one row. The carriage should be ease across gently.
8. Drop comb.
9. Knit.



BINDING OFF AND FINISHING AND EDGE

1. Start on the side where your yarn ends.
2. Hold your latch tool upright, so latch remains down, or open.
3. Remove the first 2 stitches from the needles onto the latch tool and let them slide past the latch.
4. Place yarn in the hook of the needle in the front of the open latch and pull yarn through both stitches this leaves one loop in the hook of your latch tool. You continue to take off one stitch at a time. This method is used wherever instructions call for binding off any number or all stitches at neck, armhole shoulder or pocket edges.

UNDOING OF ROWS OR UNRAVELLING

DON'T take the work off the knitter when you make a mistake. Simply unravel one or several rows, by doing the following :

Pull the yarn slightly, drawing it out of the stitches. The stitches of the row below will slip into the needles automatically.

To move the carriage in either direction without knitting, turn the carriage releaser to left as far as it will go. Now the carriage will slide over the needles which are in operation, without knitting. This is also useful for multicolor knitting.

IF YOU DROP A STITCH, do the following :

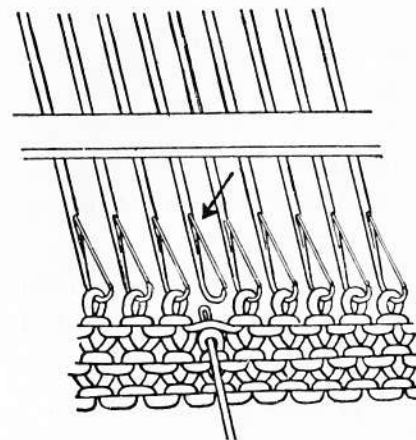


Fig 21

1. With the one eye transfer, pick up the stitch and the unknitted thread and put them both on the empty needle.
2. Move the stitch behind the latch of the needle, catch the thread of the unknitted stitch into the hook of the needle.
3. With your finger on the butt of the needle bring the needle all the way back. The stitch will slide over the hook and the thread in the hook of the needle will be knitted.

JOINING YARNS

1. The best way of joining yarns whether they are of the same or different colors, is at the **beginning** of a row. After one row is knitted, the yarn can be tied into a knot at the edge. The loose ends are

woven into the seams or edge when finished.

2. If the yarn must be joined in the middle of a row, use a reef knot (square knot).

- a) Allow 4 inches of the old yarn to hang down.
- b) Rethread the branch tension arm and the yarn feeder with the new yarn.

NOTE : See that the second opening of the yarn feeder is threaded.

- c) Finish the row you are knitting and tie the reef knot in the same tension as you are knitting.

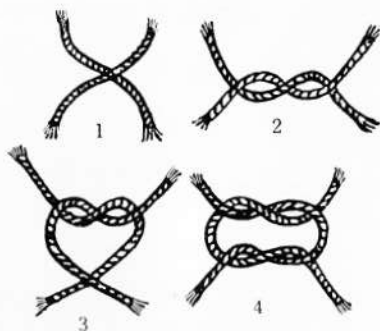
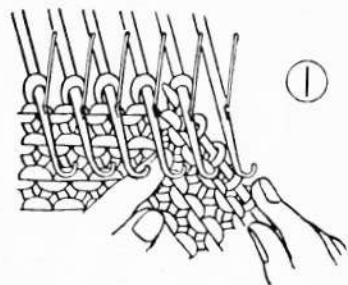


Fig 22

HOW TO REMOVE THE KNITTING FROM THE BROTHER-KNIT



UNBOUND METHOD :

- a) Take the yarn out of the yarn feeder.
- b) Slide the carriage twice across the needle bed. Left to right or right to left.
- c) The work will be released.

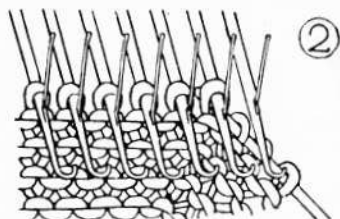


Fig 23

You may also transfer your unfinished work to knitting needle, if so desired, by transferring to hand needles stitch by stitch.

HOW TO TRANSFER TO HAND KNITTING NEEDLES

1. Slide a hand-knitting needle into the first stitch. With your left hand, hold the knitting close to the knitter. With your finger, bring the needle forward so that the stitch in the hook of the needle slides onto the stem of the needle behind the latch.
2. Bring the needle all the way back. The stitch will fall over the hook of the needle onto the knitting needle.
3. Slide the knitting needle into the next stitch and repeat until all the stitches are off the needles in the needle bed.

HOW TO RAISE THE CAST-ON COMB

Remove wire and insert teeth of comb through your knitting from the knit to purl side and re-insert wire. When knitting large pieces, the comb should be raised. Care should be taken that it hangs freely for proper weighting. Never let it rest in your lap.

WHAT DOES THE ONE EYE TRANSFER NEEDLE DO ?

The one eye transfer tool, is your simple aid for producing many beautiful lacy patterns. The transfer needle, is used to transfer one or more stitches from one needle to another.

HOW TO USE THE TRANSFER TOOL

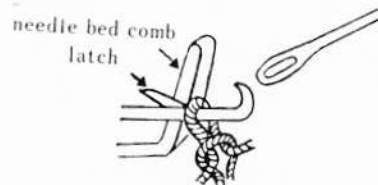


Fig 24

1. Hold the transfer tool parallel with the needles in the needle bed. Place the eye of the transfer tool into the hook of the needle.

2. With the transfer tool, bring forward the needle. By bringing this needle forward, the stitch in the hook of the needle will slide behind the latch.

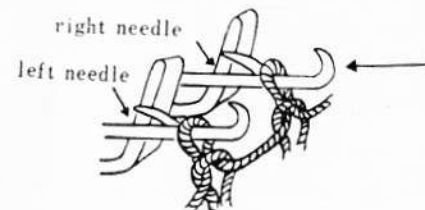


Fig 25

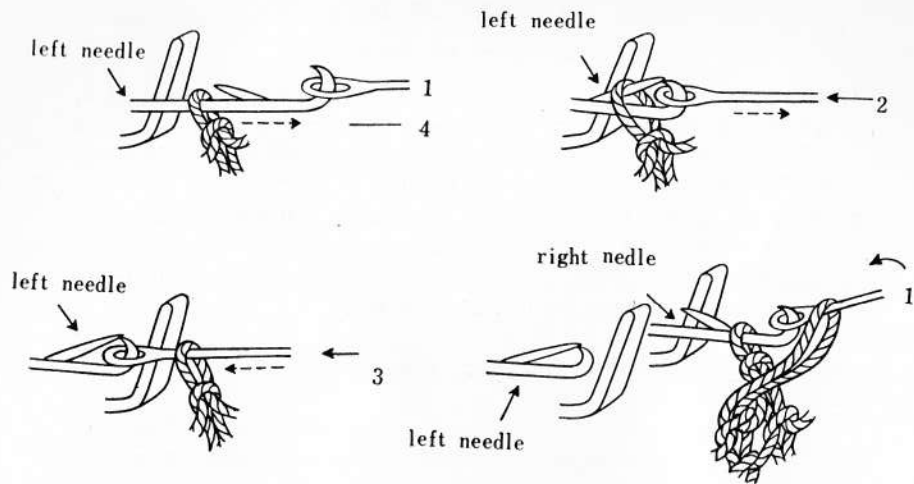


Fig 26

3. With the eye of the transfer tool on the hook of the needle, push the needle all the way back until the stitch is transferred onto tool. This is a forward and back motion.
4. Lift the transfer tool with the stitch on it to the adjacent needle, right or left as desired.
 - a) You now have two stitches on one needle and one empty needle.
 - b) This method is used for decreasing, yarnover, with one or many stitches.

INCREASING AND DECREASING IS REQUIRED TO SHAPE THE KNITTED GARMENT

In dressmaking, you would employ a pair of scissors to cut the pattern in the fabric. In knitting, we shape the fabric while producing it.

HOW TO INCREASE: Increasing **one stitch** on either side.

1. Simply pull out one needle from the resting position on either side where you wish to increase until it reaches the edge of the needle bed.
2. Knit one row.
3. Repeat wherever the pattern requires, increasing one stitch on either or both sides.

HOW TO INCREASE more than one stitch on either side of the garment.

After you have knitted the garment to the point where the directions call for the increasing of more than one stitch on either side of the work, do the following :

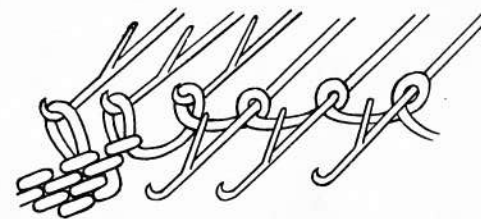


Fig 27

1. Push up all the way forward the desired number of needles to be increased.
2. Loosely wind yarn around stems of each needle (winding in direction towards center) in back of the open latches.

HOW TO DECREASE

A. How to decrease one stitch on either or both sides.

1. With the aid of your one eye transfer tool, transfer the last stitch to the neighboring stitch on either side of the row.
2. Continue to knit.

B. If you wish to decrease more than one stitch on either side of the garment.

1. You can employ this method for taking a garment off the knitter. Use latch tool or hook. On the opposite side of the carriage with the crochet hook, take the last stitch and the next one off the needle.



Fig 28

2. Slide the last stitch through the second stitch on the crochet hook.
3. Take the next stitch off the needle on the knitter and with the crochet hook, slide it through the next to the last stitch.
4. Repeat until the required number of stitches are bound off.

BINDING OFF OR DECREASING MORE THAN ONE STITCH

Binding off or decreasing means you are finishing or decreasing. This method is employed either for taking the article off the knitter or for the decreasing of more than one stitch on either side.

1. Unthread the yarn and move the carriage away from the knitting onto the extension leaf.
2. Bring forward the end needle closest to the yarn by placing your fingers at the butt of the needle and pushing it toward you.
3. Using transfer tool, move end stitch over to next needle, making sure both stitches are now behind the latch. Place yarn in front of latch and manually push needle back to form a single stitch.
4. Transfer the stitch to the needle next to it by using your one eye transfer tool.
5. Continue to feed the yarn into the open hook of the needle as directed. Decrease as many stitches as your directions advise, or work across entire piece for binding off.

FULL FASHIONED DECREASE

If a smart reglan sleeve is desired, instead of transferring the last stitch when decreasing, with your 3 prong transfer tool, move the third stitch to the 4th needle, and move two other stitches over to fill empty needle. Knit the required number of rows and repeat transfer.

THE SPEED OR ENGLISH RIB WITH A FINISHED HEM

The fastest and simplest ribbing, is the speed or English rib. The speed rib can easily be made into a double rib with an already finished hem on waist and cuffs. Not only is it more durable than any other ribbing, but it also serves many purposes and makes an attractive border.

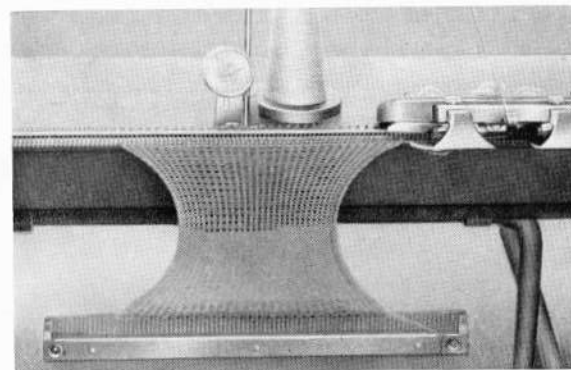


Fig 29

1. On a slightly tighter tension, cast on the necessary stitches by employing only every third needle.
2. Knit double the amount of rows given in any instruction for the ribbing of the waist band.
3. After you have knitted all the rows for your ribbing, pick up the cast on comb in a horizontal position until it is paralleled with the needle bed comb.

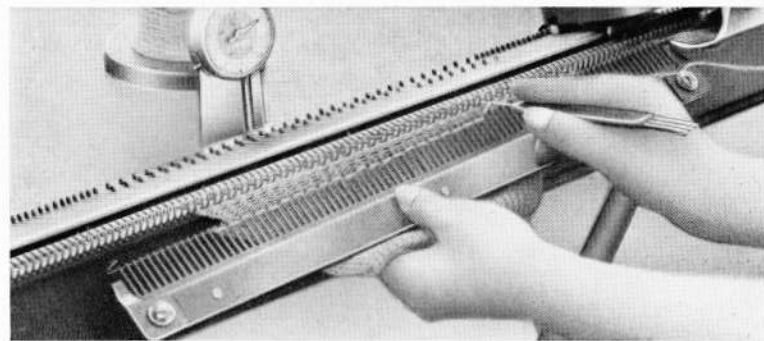


Fig 30

4. Now, using one eye transfer tool, pick up the stitches now on the cast on comb.
5. Place them in the hooks of the needles. Arrange stitches so that all empty needles hold a stitch and some in-between, hold two.

NOTE: CHANGE YOUR TENSION to the number normal for the yarn you are knitting with. Continue to knit.

6. Now, insert back into your hem, the cast on comb.

PLEASE NOTICE: As the work grows long, the center of the ribbing remains tight, while the two sides tend to become slightly looser.

English rib is effective wherever fast ribbing is desired, with or without them.

HOW TO MAKE A HEM ON THE BROTHER-KNIT

THE HEM: The hem is extremely useful as it prevents the knitted fabrics from curling. In addition, it is strong and secure. It will give long life to any garment to which it is applied. It can also be used on any skirt as a waistband through which an elastic may be pulled or as an attractive trimming for any pocket collar and cuffs.

To Start: Use the open method for casting on.

1. Cast on the required number of stitches on every needle.
2. Knit 20 rows. If a deeper hem is desired, knit more rows.
3. Now gradually picking up stitches one by one using one eye transfer tool and placing them on corresponding needles in front of the needle latch.
4. Insert your cast on comb through your double thickness of knitting; continue to knit in the usual manner.

PICOT EDGE HEM

Cast on as usual. Knit 10 rows. Transfer every other stitch to adjacent needle. Be sure to push empty needles back to knitting position. Knit another 10 rows. Now, pick up first row of unfinished cast on loops and put on corresponding needles. Continue to knit.

HOW TO MAKE A KNIT AND PURL STITCH OR RIBBING

The knit and purl stitch together on one side of the material, leaves an uneven texture of a ribbed effect. The ribbing is produced by having knit stitch over knit stitch, and purl stitch over purl stitch, in vertical lines. The ribbing narrows and lengthens the knitted fabric and increases its elasticity.

It is widely used for waistbands in sweaters, cuffs, collars, pockets, and many other decorative purposes. You can make many variations of ribbing. For example, 1 knit 1 purl, 2 knit 2 purl, 3 knit 1 purl, etc. Select any number of combinations of knit and purl to suit your particular desire, or follow your instructions.

THE KNIT AND PURL ON YOUR BROTHER-KNIT

For ONE KNIT, ONE PURL do the following:

Knit as many rows as required for the length of the ribbing on a slightly tighter tension.

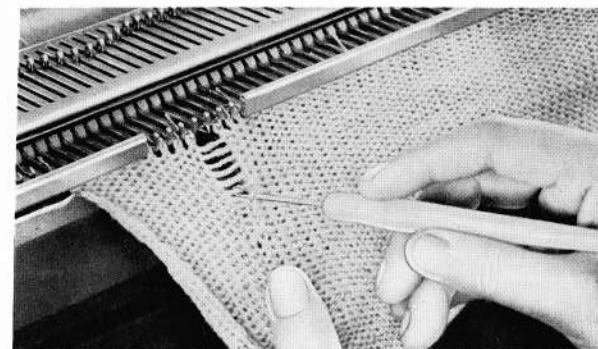


Fig 31

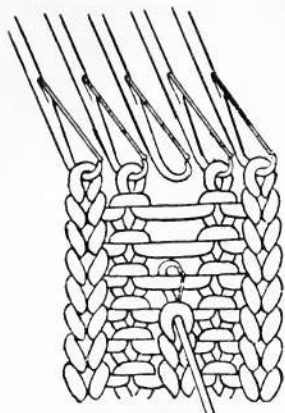


Fig 32

Drop the third stitch from the last stitch by pushing back the needle until stitch drops. Rip to three rows from the bottom edge of knitted fabric. Insert the hook of the latch tool into the loop of the dropped stitch (near bottom edge), hold tool parallel, stitch is now in back of latch. Place next parallel thread in front of latch. Pull forward until new stitch is formed.

Keep eye on latch of tool, always pick up parallel threads one by one noting that last formed stitch is behind latch, next parallel thread in front of the latch. A push and pull motion soon becomes mechanical. When all parallel threads are picked up, the last stitch is placed back on empty needle. In this manner, you are reversing your stitch, making each purl a knit.

HOW TO PICK UP DROPPED STITCH

1. Catch loop of dropped stitch with one eye transfer tool.
2. Coming from behind the knitting with latch tool, transfer stitch onto hook of latch tool. Remove transfer tool.
3. Using latch tool only and with a downward motion, place stitch behind latch and next horizontal thread into the hook of the needle.
4. With up and down motion, catch horizontal threads one by one to form new stitches until you have knitted back to the top of your work. The final stitch, is placed back on the empty needle.

FOUR SUGGESTIONS FOR SPECIAL EFFECTS USING THE LATCH TOOL:

1. Pick up every second horizontal thread.

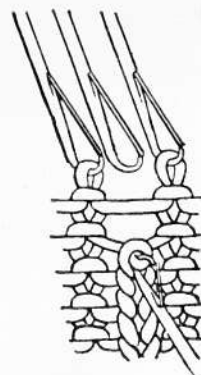


Fig 33

2. Pick up two horizontal threads together.
3. Pick up two horizontal threads leaving one in-between.
4. Pick up every third horizontal thread.

This process opens up unlimited possibilities for an original and intricate patterns.

THE BROTHER-KNIT EXTRA—THE CIRCULAR TUBE

Suitable for welting, tubing, cording, and appliqué.

1. Bring forward to the edge of the needle bed comb, 3 to 6 needles (not more than 6)
2. Use the small cast on comb for the first row of casting on.
3. After having knitted the first row, set one rising cam knob to the plain knitting position "K". The other rising cam knob, to the partial knitting position "P" to get the thread across.
4. Now, move the carriage back and forth until you reach the desired length. Watch how the yarn will seam both ends and form a regular tube.

THE BASIC RULES FOR PARTIAL KNITTING

Partial knitting is used for shaping a garment, making darts, shaping of a heel, vertical and horizontal buttonholes, neck openings, pockets, and pattern stitches. If fullness is desired, this method of short row knitting is very desirable.

Example: We would like to knit only half the amount of needles.

1. Pull out all the way, 6 of the 12 needles in action.
2. Make sure that the latches of the pulled-out needles are open.
3. Set the rising cam knobs on the carriage to knit position "F".

4. Knit one row.

You will notice that only the 6 needles which were pulled toward the front, have knitted.

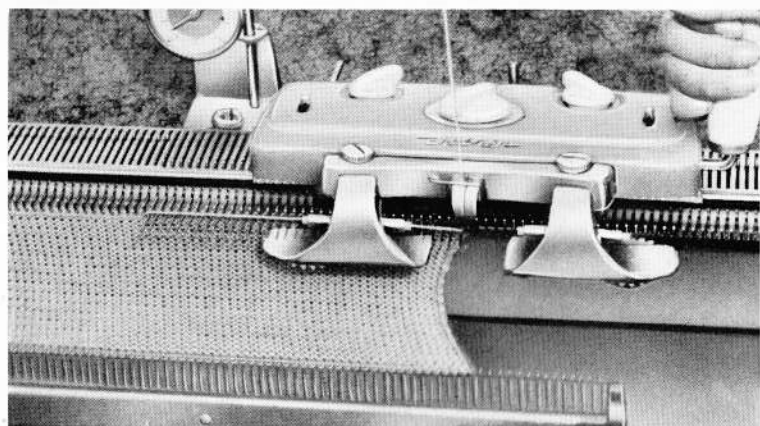


Fig 34

RULES FOR PARTIAL KNITTING

1. Pull out the needles you wish to increase or knit toward the front.
2. The latches of the needle must be open.
3. The rising cam knobs on the carriage, have to be set at position "F". Whenever you are starting a new row, pull out only those needles you wish to knit partially.

HOW TO MAKE A HORIZONTAL BUTTONHOLE

1. Knitting by hand, work first four needles or stitches.
2. Bind off next four stitches.
3. Set cam knob to position "F" for partial knitting. Push up needles in remainder of row to partial knit and knit across and back to buttonhole with carriage, making sure to first rethread the yarn.
4. Cast on four stitches with same thread and knit balance four stitches, by hand (working needles one by one with your hand).

HOW TO MAKE A VERTICAL BUTTONHOLE

When knitting a vertical buttonhole, knit up to the row where the buttonhole starts.

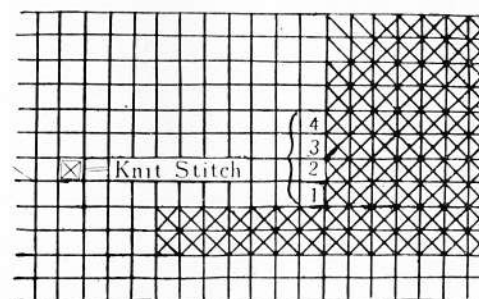
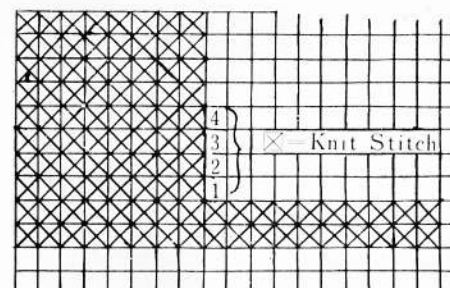


Fig 35

1. Turn the rising cam knobs to partial knitting. ("F")
2. If the carriage is on the right side of the needle bed, knit first the right side of the buttonhole, by bringing out all needles on the right side of the button-hole.
3. Knit four rows partially. If a larger buttonhole is desired, knit as many rows as are necessary for the size of the button.
4. Break the thread and in partial knit position, knit the left side of the buttonhole in the same order as you knitted the right side.
5. After you have completed the same number of rows on the left side of the buttonhole, change the rising cam knobs to whatever position you were knitting before you started the buttonhole and continue to knit.

HOW TO SHAPE HEEL

1. Pick up 30 stitches. (cam position "K")
2. Knit 10 rows.
3. Turn cam knobs to position "F" (remember when knitting in position "F" always raise needles as high as they will go, **row by row**, making sure that all latches remain open). To form mitre on heel, is to decrease and increase within your knitting.
4. Decrease one needle beginning of each row, keep stitch on the hook of the needle being decreased and wind yarn completely around decreased needle. (Always wind towards center and knit across.)
5. Continue decreasing until $\frac{1}{3}$ of total number of stitches used for heel remain in center.
6. Reverse process by increasing one stitch beginning of each row just as you do for single increases. (Winding of yarn not necessary.)
7. Turn cam to position "K" knit 10 rows to complete heel.

HOW TO KNIT "V" NECKLINE

For the knitting of the "V" neckline or any other neck openings, vertical or round, we employ the method of partial knitting, which means that we will only knit one side at a time, by dividing the work at the start of the neckline. After one side is completed, we then, shall continue the other half of the garment and shape the neckline corresponding to the finished side.

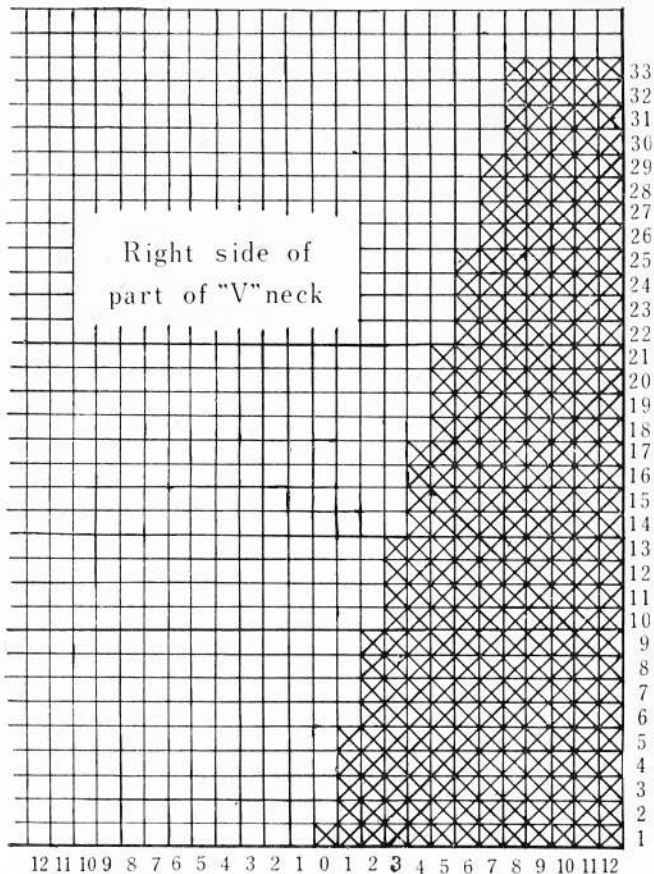


Fig 36 ☒ = Knit Stitch STITCHES

1. Knit up to the start of the neck opening. Then set the rising cam knobs to partial knitting position "F".
2. The carriage should be at the right side of the needle bed, divide the work in half, bring forward one side of the needles engaged in knitting the garment. Check that the latches are open. Knit one row.
3. Decrease one stitch on the neck edge and again bring forward all the needles of that side. Watch the latches are open. Knit one row.
4. Repeat, but do not decrease every second row. Only decrease stitches in the required number of rows. The average size "V" neck, requires the decreasing of one stitch every fourth row.

After you are completely finished with the right half of the garment:

1. Set the rising cam knobs back to knitting position "K".
2. Continue to knit in the regular way and shape the neck. Knit other side to correspond.

Use any 2 needle sock instructions for size and design and follow illustration below for shaping.

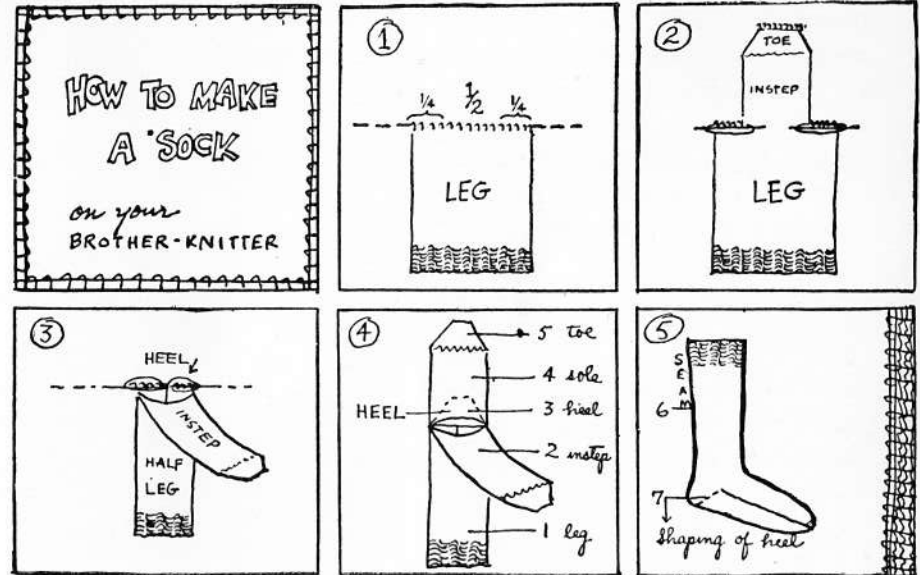


Fig 37

PATTERN STITCHES

HOW TO JOIN ANOTHER COLOR OF YARN

To make a stripe:

1. Remove the yarn from the yarn feeder.
2. Thread the yarn holder with second color as directed in setting up the knitter.
3. Take the end of the new yarn and thread it through the two openings of the yarn feeder. Let the yarn hang four inches.

NOTE: Always be careful that the last opening of the yarn feeder is threaded, otherwise the carriage will not have yarn to feed the needles and all the stitches will drop.

4. Continue knitting.
5. By repeating the above operation, you may join as many colors as you wish.
6. If you wish to knit again with one of the yarns in resting position and the carriage should be on the opposite side of the needle bed.
 - a) Remove the yarn from the yarn feeder.
 - b) Set the rising cam knobs to partial knitting position "F" and slide the carriage across the needle bed. Set the cam knobs at knitting position "K" and continue.
 - c) Then, place the yarn you wish to use through the yarn feeder, set the cam knobs at knitting position "K", and continue.

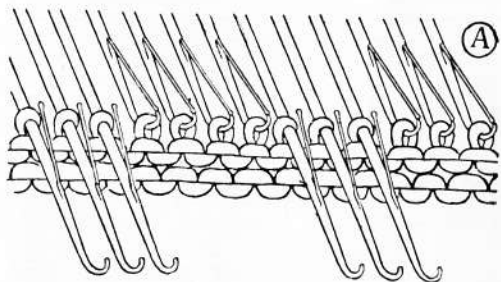
ARGYLES

Every knitter is at heart, a composer, a creator of variety and beauty in both design and color. Your BROTHER-KNIT, will help you create whatever pattern you wish. From the description on PARTIAL KNITTING, you will understand that you can produce MULTICOLOR ARGYLE PATTERNS.

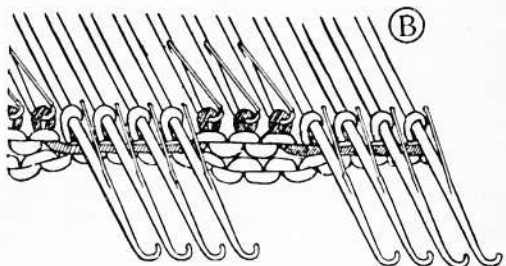
To knit Argyle Patterns of two different color yarns:

Color A: To form a main color.

Color B: For the trim color.



Thread the Color A yarn in the yarn feeder and push up the needles which you wish to knit with Color A yarn. Set the rising cam knobs in their inoperative position and knit one row by moving the carriage across the bed. In this way you will knit only on the needles which you pushed up and you will not knit on the needles which you did not push up.



Next row must be knitted with yarn Color B. To do this, remove the Yarn A and thread Color B in the yarn feeder and push up the needles which you wish to knit with this color. In other words, the needles you push up in the last row, that you have knitted.

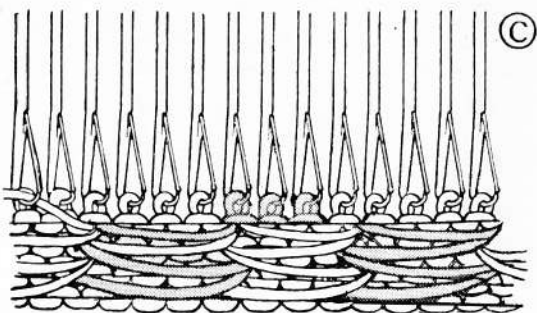


Fig 38

Move the carriage to knit one row with Color B. Work row by row, using partial knit when changing colors. By repeating the knitting with yarn Color A and B alternately, you will get rectangular Argyle Pattern. To produce a diamond shape, or other patterns, you must arrange the needles to knit with Color B according to the pattern.

1 DIAGONAL PATTERN

To knit any diagonal pattern in two or three colors, each change of color on a line must be knitted separately with cams set to position "F".

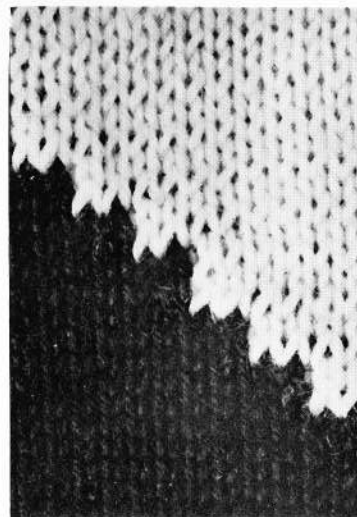


Fig 39

Row 1 and 2
2 stitches Color A48 Color B

Row 3 and 4
4 stitches Color A46 Color B

Row 5 and 6
6 stitches Color A44 Color B

Continue to decrease stitches of one color as you increase the second. Twist yarns at changing point.

2 BRICK PATTERN

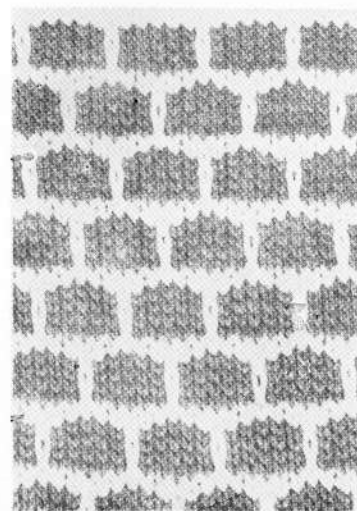


Fig 40

Color A —Row 1 — Knit even.

Color B — Turn cams to position "F".
For partial knit, raise 5 needles up, 1 down, repeat across row.

Knit 4 rows with needles in this position.
Push needles up for each row to be knitted.

Turn cams back to position "K".

Knit 2 rows even.

Repeat by putting up 5 alternate needles.

You can also vary this pattern by not alternating boxes. This makes consecutive squares.

#3 CAT'S PAW PATTERN



Fig 41

Every tenth stitch is transferred to adjacent needle forming one yarnover.

Knit two rows.

Transfer one stitch to the right of first yarnover and one stitch to the left leaving a center knit stitch.

Knit two rows.

Transfer last yarnover to correspond with first one to complete Cat's Paw design.

#4 DIAMOND YARNOVER PATTERN

- 20 stitches for design — 10 on each side of center "O". Remember to put back empty needles by knitting position after each line of transfer. Always knit two rows between each line of transfer.
- All stitches are transferred toward center to needle # 1.

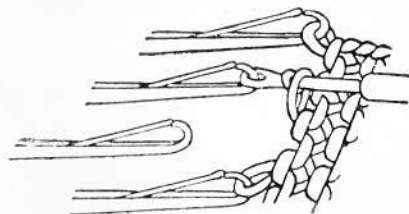


Fig 42

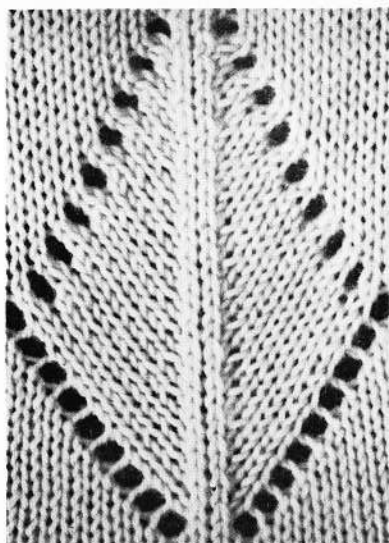


Fig 43

Right	Left
Row 1 — transfer stitch 2 to 1	2 to 1
Knit 2 rows even	
Row 4 — transfer stitch 3 to 2	3 to 2
Knit 2 rows even	
Row 7 — transfer stitch 4 to 3	4 to 3
Knit 2 rows even	
Row 10 — transfer stitch 5 to 4	5 to 4
Knit 2 rows even	
Row 13 — transfer stitch 6 to 5	6 to 5
Knit 2 rows even	
Row 16 — transfer stitch 7 to 6	7 to 6
Knit 2 rows even	
Row 19 — transfer stitch 8 to 7	8 to 7
Knit 2 rows even	
Row 22 — transfer stitch 9 to 8	9 to 8
Knit 2 rows even	
Row 25 — transfer stitch 10 to 9	10 to 9
Knit 2 rows even	

#5 PATTERNS COMPOSED OF STRIPES

- Follow the rules of "How to Join Another Color of Yarn". Knit 5 rows with color A (royal blue).
 - Knit 2 rows with color B (white).
 - Knit 1 row with color C (black).
 - Knit 2 rows with color D (green).
- Repeat steps 1, 2, 3, and 4.

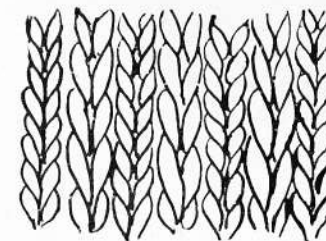


Fig 44

PATTERN #6

- Knit 4 rows with color A (white).
 - Change the yarn feeder to the contrasting color B (navy).
 - Set the rising cam knobs to tucking position "T" and with your one by one needle pusher, bring forward every second needle.
 - Knit one row.
 - Turn the rising cam knobs back to knitting position "K" and knit 2 rows with color B (navy).
 - Again knit 4 rows with color A (white).
- Repeat steps 2, 3, 4, 5, and 6.

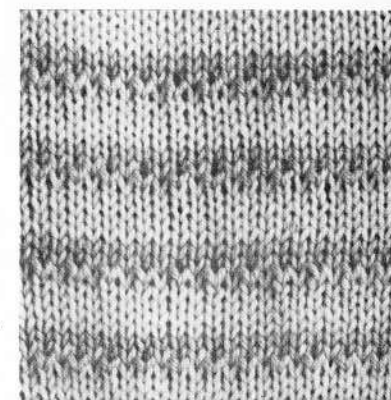


Fig 45

PATTERN #7

- Knit 2 rows of color A (white).
 - Set the rising cam knobs to partial knitting position "F". With your one by one needle pusher, bring forward every second needle and knit one row.
 - Change the yarn in the yarn feeder to color B (blue) and bring forward every second needle, but only those you did not knit in the last row. Knit one row.
 - Turn the rising cam knobs to knitting position "K". Knit one row with color B (blue).
 - Change the yarn in the yarn feeder to color A (white). Knit 1 row.
 - Change the yarn to color B (blue). Knit 1 row.
 - Change the yarn to color A (white). Knit 2 rows.
 - Change the yarn to color C (scarlet). Knit 2 rows.
- Repeat steps 1, 2, 3, 4, 5, 6, 7, and 8.

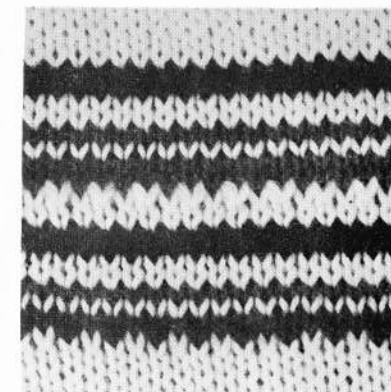


Fig 46

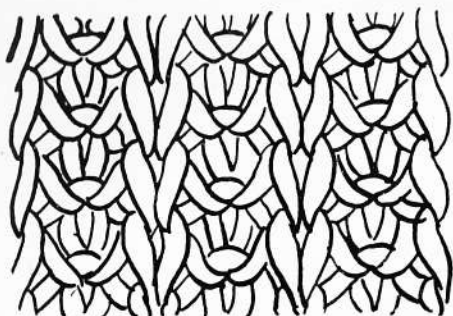


Fig 47

PATTERN # 8

PATTERNS WITH NEEDLES IN RESTING POSITION

1. Knit 1 row.
If carriage is on the right side of the needle bed, turn the left rising cam knob to partial knitting position "F".
2. With the needle pusher 1 X 1 bring forward every second needle, knit 1 row. Repeat 1 and 2.

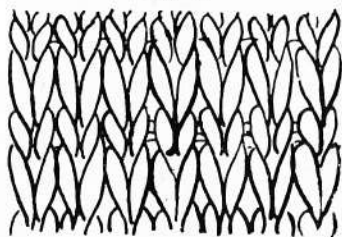


Fig 48

9 TENSION EFFECT PATTERN

1. Knit one row on tension 15.
2. Knit one row on tension 28.
3. Repeat 1 and 2.

TUCKING PATTERNS

An exclusive feature of BROTHER-KNIT, is this unusual stitch formation. When the knobs are in position "T", you will note that only the needles brought forward will knit and only 1 needle should be left down to tuck regardless of how the knitting needles are arranged.

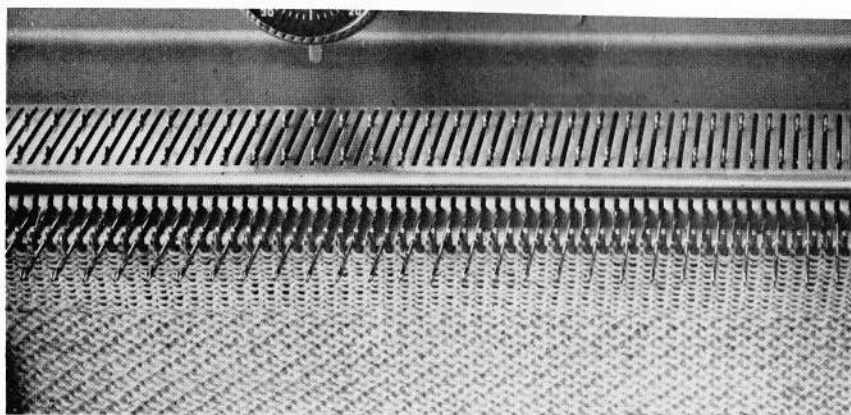


Fig 49

SEE THAT LATCHES ON RAISED NEEDLES ARE OPEN ON ALL TUCKING PATTERNS.

PATTERN # 10

"SEED STITCH"

1. Using your 1 X 1 needle pusher, put up every other needle.
2. Turn cam knob to position "T". Knit 2 rows.
3. Turn cams to position "K". Knit row 3 and 4.
4. Repeat but raise alternate needles and turn cam knob to position "T".

Pull the material down a little as each row is completed and see the beautiful textured fabric.

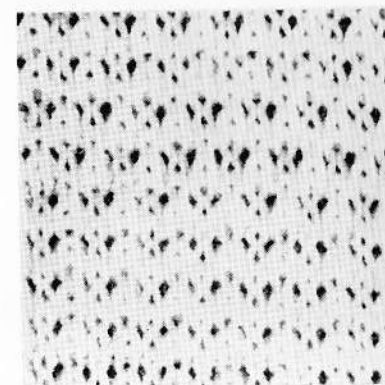


Fig 50

PATTERN # 11

TUCK AND POP

Color A Row 1 and 2 knit (cams pos. "K").
Color B Row 3 Cams pos. "T". Arrange needles 5 knit, 1 tuck across needle bed.

Row 4, 5, 6, same as row 3.

Color A Row 7 and 8 knit (cams pos. "K").
Color B Row 9, 10, 11, and 12 — Repeat as row 3, 4, 5, and 6 but this time, extending alternate groups of needles and using color B.

This pattern is more effective on purl side.

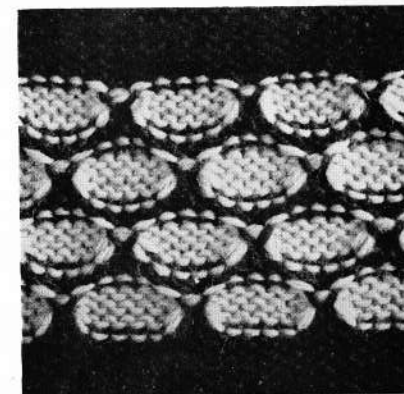


Fig 51

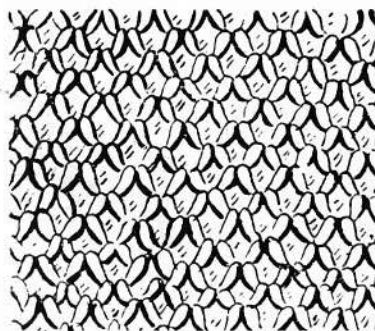


Fig 52

PATTERN # 12

KNIT AND TUCK

1. Turn the cam knobs to partial knitting position "F" and tucking position "T".
2. Row 1 — With the 1 X 1 needle pusher, bring out every second needle and knit one row on position "F".
3. Row 2 — Bring out alternate needles — Knit. Repeat 2 and 3.

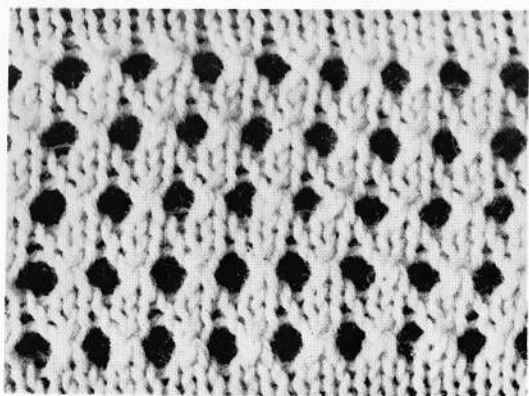


Fig 53

PATTERN # 14

CABLE STITCH

1. Using both hands, take the two, three eye transfer tools and insert them in needles 1, 2, 3, 4, 5, 6 next to each other.
2. Transfer the first 3 stitches or stitch 1, 2, and 3 over to needles 4, 5, and 6. Stitches 4, 5, and 6, should be transferred to needles 1, 2, and 3.
3. Knit 6 or 8 rows between each twist of the cable.

NOTE : If narrower cables are desired, the 1 or 2 eyed transfer tools may be used.

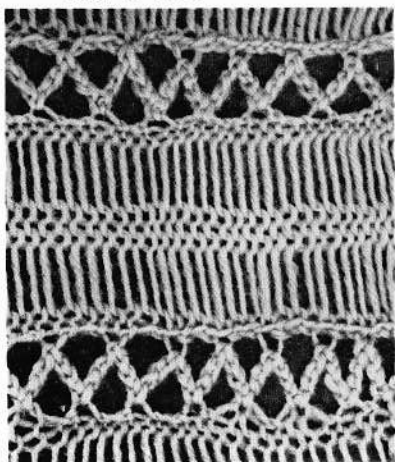


Fig 55

PATTERN # 13

LACE OR OPEN WORK PATTERN

Knit 4 rows.

1. With your 1 X 1 eyelet comb, transfer every second stitch to the next needle.
2. Leave the empty needles as they are at the edge of the needle bed comb.
3. Knit 4 rows. Repeat 1, 2, and 3.



Fig 54

PATTERN # 15

HAIR PIN LACE

The quick method "Hair Pin Lace" made on BROTHER-KNIT.

Arrange center needles in this way. Knit 2 Out of Service 8.

A fairly tight tension is necessary for this "drop needle" knitting. Cast on by looping yarn on the working needles. Knit the required length. This makes a $2\frac{1}{4}$ width of "lace".

The strips are joined with crocheting and may be used for stoles, blouses and skirts or wherever hand loomed "Hair Pin Lace" is used.

BODY MEASUREMENTS

To take body measurements for misses, women, juniors and teens sizes, measure around fullest part of bust (with bra), natural waistline, and fullest part of hip. Find the column of measurements in the tables below which approximates the measurements taken. The size at the top of the column is the size to make. Necessary allowance has been made in the directions for the proper fit of each garment according to style, stitch, and yarn type. The blocked or finished bust measurement of the knitted or crocheted garment, is given with the directions. Body measurements for men, are given below.

To take body measurements for children's sizes, measure around fullest part of child's chest over underwear, holding tape comfortably, neither snugly nor loosely. Find the chest measurement in table, then find size to make directly above in same column. Other measurements in table will help you decide whether your child differs in build from the average so that adjustments can be made easily as you work. Our children's garments are designed for a casual, easy fit and allow for a child's growth. The chest or breast measurement, not the child's age, is your guide in choosing the correct size to knit. This is the most important measurement in fitting a child's knitted garment. Shoulders are designed in proportion to chest. Room for growth has been allowed in the knitting and crocheting directions.

ADJUSTING TO LARGER OR SMALLER SIZES

There is a 2 inch difference in bust, waist, and hip between each miss and each woman's size, except for size 10. To make a garment one size larger than given in directions, and the number of stitches equaling 1 inch to both back and front for a pullover, 1 inch to back and $\frac{1}{2}$ inch to each front for a cardigan or jacket, 2 inches to a skirt. Subtract the same number for a smaller size. For size 10, subtract only half these amounts from size 12. When stitch is a repeat pattern, add or subtract the number of stitches equal to one or more multiples.

There is $\frac{1}{2}$ inch difference across back and front at shoulders for each miss and each woman's size, 1 inch for each men's size. To obtain desired width at shoulders, decrease more or less stitches at armhole shaping, dividing evenly between armholes. There is $\frac{1}{4}$ inch difference at wrist and $\frac{1}{2}$ inch at underarms for each size.

Directions for changing the length of skirts are given with skirt directions. The length of sweaters, jackets, dress waists, and sleeves, is changed by adding or subtracting required number of inches before armhole is reached.

MISSES BODY MEASUREMENTS

SIZE	10	12	14	16	18	20
BUST	31	32	34	36	38	40 ins.
WAIST	23	24	26	28	30	32 "
HIP	33	34	36	38	40	42 "

JUNIOR'S BODY MEASUREMENTS

SIZE	9	11	13	15	17
BUST	28	30	32	34	36 ins.
WAIST	22 $\frac{1}{2}$	23 $\frac{1}{2}$	25	27	29 "
HIP	31	32	34	36	38 "

TEEN'S BODY MEASUREMENTS

SIZE	10	12	14	16
BUST	30	31	33	35 ins.
WAIST	23	24	26	28
HIP	32	33	35	37 "

WOMEN'S BODY MEASUREMENTS

SIZE	36	38	40	42	44	46
BUST	38	40	42	44	46	48 ins.
WAIST	30	32	34	36	38	40 "
HIP	40	42	44	46	48	50 "

MEN'S BODY MEASUREMENTS

SIZE	34	36	38	40	42	44
CHEST	34	36	38	40	42	44 ins.
WAIST	30	32	34	36	38	40 "

HINTS ON HOW TO FINISH A GARMENT

BLOCKING AND STEAMING

Blocking:

1. Place the knitted pieces back side up on an ironing board or any other padded surface.
2. Using rustproof pins, pin the top and the bottom of the article to the board or padded surface. Each pin should be spaced about one inch apart.

IMPORTANT: Do not pin or block ribbings, cable stitches or any other texture designs.

3. Pin the two sides of the garment in the desired shape and size — stretching them slightly wherever necessary.

HELPFUL HINT: Identical pieces, such as two fronts or two sleeves, etc., can be pinned on top of each other (the two right sides facing) and blocked and steamed together.

4. If you are using a pattern for the garment are blocking, first put your pattern on the board and place your knitting over it and pin knitting to correct size of pattern.

Steaming:

1. Very lightly and slowly run a steam iron over the knitted pieces allowing the steam to penetrate into the garment. **Do not allow the iron to rest on the article.** When using a dry iron, take a very damp but not wet cloth, place it over the knitting, and press very lightly.
2. Leave the knitting pinned to the board until it is completely dry.
3. After you have removed pins, remeasure the garment. If the size is not correct, steam again for correct width or, if necessary, shrink it with the aid of a damp cloth.
4. After the work is assembled, press the seams slightly on the back side as directed above.

JOINING OF SEAMS

The fit of a garment depends very much on how the seams are joined.

The basic method of sewing pieces together:

First pin or baste corresponding pieces together, then choose one of the following methods:

1. Using a tapestry needle weave or over-cast steams.
2. Crochet with crochet hook.
3. A quick modern way is to sew two rows of very small machine stitching close to the edge. This is advisable on garments knitted with any of the novelty dress yarns where a narrow strong seam is needed.

A REMINDER: Never stretch, or pull seams too tightly when assembling.

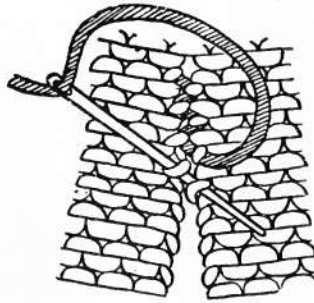


Fig 56

TRIMMINGS

The edge finishes on your garment, help give it that custom made look. If it is a dressy woman's blouse, a piping of satin, an edging of beads, or a border of fur on the neck, give it added glamour. If it is a child's sweater, a crochet edge of contrasting colored yarn or angora, give it just the proper finish. Use your ingenuity. Create garments that are original and will be the envy of your friends.

LAUNDERING THE KNITTED FABRIC

Do not put into washing machine.

1. Before washing, measure the length and width of the garment.
2. Take alkali (mild) free soapflakes and make suds in lukewarm water.
3. Put your garment into the suds and handle it gently by squeezing the suds throughout the fabric.
4. Rinse three times in clear lukewarm water. ALWAYS SUPPORT THE GARMENT WITH YOUR HANDS WHEN LIFTING IT OUT OF THE WATER.
5. SQUEEZE out as much water as possible. DO NOT WRING THE GARMENT.
6. Spread the garment on a couple of turkish towels, inside out, and shape it in its original size.

Ribbings, neck and sleeve borders, should be held for a snug fit.

NEVER HANG A KNITTED GARMENT ON A HANGER! ALWAYS PLACE IT ON A FLAT SURFACE FOR DRYING, AWAY FROM ARTIFICIAL HEAT!

CARE OF THE BROTHER-KNIT

WHEN THE STITCHES ARE NOT UNIFORM

1. Uniform feeding of yarn: The yarn must be fed smoothly with an even and constant tension. The most common failure for the beginner, is to make loose stitches at the ends of the garment.
2. The felt is worn out: To keep the smooth movement of the needles, this machine has a felt bar in the needle bed. When the felt bar wears out, replace it with a new one.

WHEN YOU CANNOT MOVE THE CARRIAGE SMOOTHLY

1. Check the needle arrangement: Is any needle hitting any part of the carriage? The point of the rising cam? The brush holder? The yarnfeeder? The sinker plates?
2. Check the tension dial.
3. Check the yarn: If the yarn is knotted, the carriage will move tight. Tap carriage gently across until knotted area is passed.
4. Check the feeding of the yarn: Sometimes you will find that the yarn is not properly fed to the yarn-feeder. The yarn may be jammed or hooked.
5. Check the needles: Bent or broken needles must be replaced by new needles.
6. Lubrication: When needed, clean your machine with a soft brush and place a drop of oil at the guide rails, the butts of the needles, and the working surfaces of the cams.

TO RELEASE THE CARRIAGE

In the event of the carriage jamming in the course of normal knitting due to incorrect guiding of the yarn, the following steps will quickly permit freedom of operation:

1. Unthread yarn from carriage.
2. Grip the Carriage Releaser, as shown in Fig. 57 and move it from Right to Left as far as it will go. Now the carriage is disengaged from the needles.

3. Unravel the last row of knitting, reengage the carriage by moving the releaser from Left to Right as far as it will go.
4. Thread the yarn feeder and continue to knit.

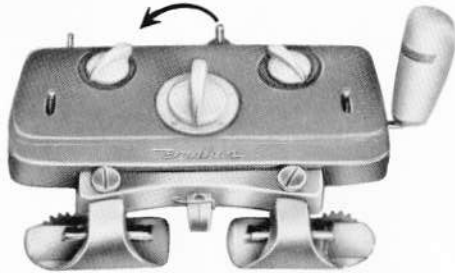


Fig 57

HOW TO REPLACE THE NEEDLE AND FELT BAR

To Replace The Needles :

1. Unscrew the screw "S" of the right end piece, Fig. 59A.
2. Loosen the screw under this end piece and it will come off easily.
3. Through the opening at the end of the needle bed you will see the steel strip that presses the felt bar.
4. With hook 14, Fig. 7, pull out the felt bar unit as shown in Fig. 59B.
5. Draw out the needle retaining rod, as shown in Fig. 59A, until the needle you wish to change is freed.
6. Grasp the needle as shown in Fig. 58 and left it out in an upward curving direction.
7. Replace with a new needle by holding it as shown in Fig. 58, (with latch open) and with a curving motion push it into the needle bed slot. Make sure that the needle hook is above the surface of the bed.
8. Push in the needle retaining rod.
9. Now place with a felt bar unit. Make sure that the felt faces downward, that the tapered end is inserted first and that it is pushed into the needle bed in a Straight Line.
10. Replace the end piece and tighten the under screw and screw "S" securely.

To Replace The Felt Bar :

The felt bar serves to prevent the needles from "floating" loosely in the bed slots. When it wears out, also it must be replaced, according to the above instructions.

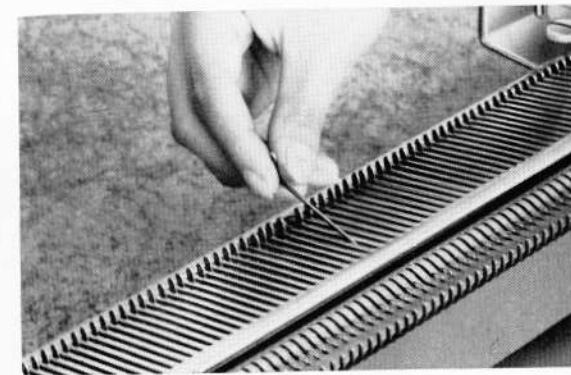


Fig 58

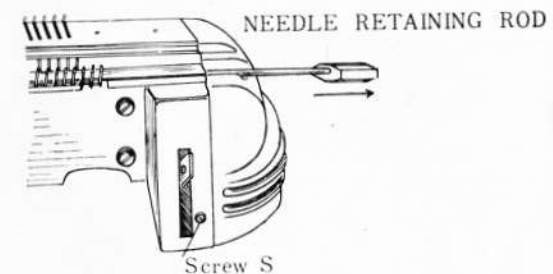


Fig 59A

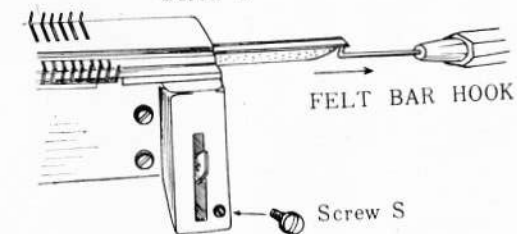


Fig 59B

HOW TO USE THE BRANCH TENSION ARM

The branch tension arm is a specially designed device to ensure an even feed on the yarn while, and consequently an even size of stitch.

The yarn comes from "A", and is threaded through the arch "B" of the arm, then through the eyelet "C", of the take up wire, then out through the eyelet "D" of the arm and on to the yarn feeder.

When knitting, care must be taken not to move the carriage so far beyond the last needle that there is insufficient tension (or give) in the take up wire to prevent a loop forming in the yarn between the feeder and the first needle when the carriage to return. It is, therefore, necessary to keep an eye on the end of each stroke, and if necessary, to clear any loops that may form.

Another possible fault of too long a movement is the tendency of the yarn to catch in the gate of the needle bed, wheels, brushes, and the like.

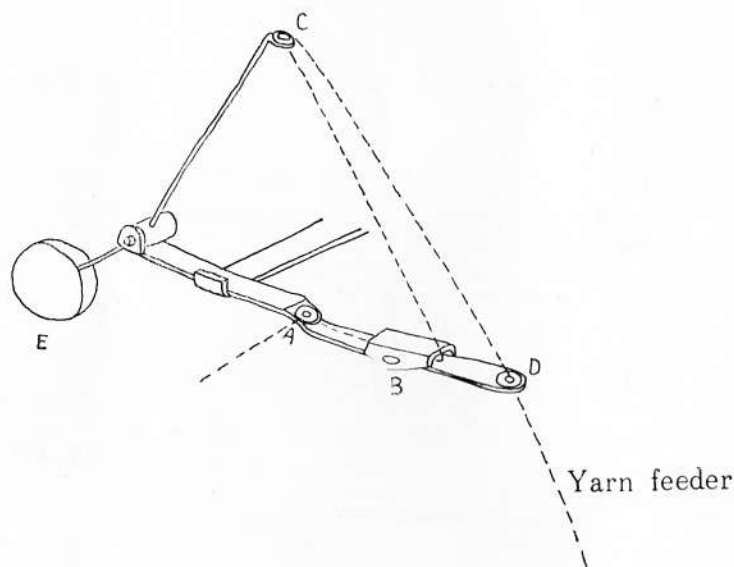


Fig. 60

HOW TO MANIPULATE HOLDING CAMS WHEN DOING PARTIAL KNITTING AND FAIR ISLE PATTERN

Whenever Holding Position is mentioned, the Pattern Dials must be on "K" and the Holding Cams "down" unless otherwise specified in the text.

- a. Use 3-ply wool. Tension Dial on 7. Both Holding Cam Levers "up" and both Pattern Dials on "K". Cast on 40 stitches and knit 40 rows. Push Holding Cam Levers "down".

Using the 1 x 2 Needle Selector, raise every third needle, starting with the first needle on right-hand side, to its full extent (Holding Position). Knit 3 rows.

You will notice that the needles in Holding Position do not knit, but remain stationary and only gather a loop over these needles for each row knitted.

Push "up" Holding Cam Lever nearest to knitting, so as to allow Holding position needles to knit again (this is referred to as releasing the Holding position needle).

(N.B.Always check to see that latches of needles in Holding are all open, when releasing the needles).

Knit one row. Push Holding Cam Levers "down" again. Bring forward the same needles, starting with the first needle on the right-hand side, to their fullest extent (Holding position).

Knit three rows. Push "up" Holding Cam Levers nearest to knitting.

Repeat this procedure, 10 times.

Do not remove work from machine.

(N.B.When you come to the row where you want to release the Holding position needles, and you find a holding position needle at the beginning of the row, you will notice that the thread lies on top of the needle. (See Fig. 34) To avoid dropping the stitch, just flick the thread under the needle and knit).

- b. Push Holding Cam Lever "up". Knit four rows. Remove color "A" from Feeder and thread contrasting color "B".

*Push Holding Cam Lever "down". Both Pattern Dials on "K".

Using the 1 x 3 Needle Selector, raise every fourth needle to its full extent (Holding position), starting with the first needle on the right. Knit 4 rows. Unthread color "B". Thread color "A". Both Holding Cam Levers "up".

Knit 2 rows. Unthread color "A". Thread color "B". Both Holding Cam Lever "down".

Using Needle Selector, raise every fourth needle, but starting with third needle from the right.

Knit 4 rows.

(N.B.When doing patterns in Holding position, and the stitches on the normal knitting position are inclined to creep up, a weight may be applied).

Unthread color "B". Thread color "A".

Push both Holding Cam Levers "up" and knit 2 rows*.

Repeat from * to *, 5 times.

To get another effect, follow the same procedure, but raise the same needle every time.

SHAPING "V"-NECK WITH HOLDING CAMS

Using 2 cones of 3-ply wool. Set Tension Dial on 7. Both Pattern Dials on "K". Both Holding Cam Levers "up". Release Gear Wheel.

1. Cast on 60 stitches. Knit a row back. Set Gear Wheel and knit 40 rows finishing with the Carriage on the right-hand side.
2. Both Pattern Dials on "K", push both Holding Cam Levers down. Now push up one half of the needles on the left to Holding Position starting from the center "O", towards the left-hand side. Knit 4 rows. (You will notice that the needles in Holding Position did not knit, but remained stationary.) You have now knitted on the one half of the "V"-neck on the right-hand side.
3. Decrease at the right half at neck edge, by just knitting 2 together on the center "O" putting the first stitch on to the next needle towards the right. Push empty needle out of action, unthread wool from feeder.
4. Leaving Holding Cam Levers down, turn both Pattern Dials to "F". Take Carriage across.

(N.B. When the Holding Cam Levers are down and the Pattern Dials on "F" you will not disturb the needles in normal position, or the needles in Holding Position. The Carriage will pass freely across).

5. Thread the wool of the second cone. Push up Holding Cam Lever nearest to knitting. See that all latches of needles in Holding Position are open. Knit across.
6. Raise the other half of the needles on the right-hand side to Holding Position. Lift the loose thread of wool so that it lies over the top of the Holding Position needles. (See Fig. 34). Both Pattern Dials back to "K". Both Holding Cam Levers down. Knit 3 rows. (You have now knitted the four rows on the left half of the "V"-neck). Decrease as in **Step 3** but towards the left.
7. Unthread the wool. Both Pattern Dials on "F". Take Carriage across to the other cone of wool on the right-hand side. Push up Holding Cam Lever nearest to knitting. See that latches on Holding Position needles are open. Knit across. Raise the other half of needles on the left-hand side to Holding Position. Lift the loose thread of wool so that it lies over the top of the Holding Position needles. Push both Holding Cam Levers down. Both Pattern Dials on "K". Knit 3 rows on the right-hand half.

Repeat from **Step 3**, thus knitting 4 rows on either side of "V"-neck alternately decreasing one stitch on either side of neck edge every 4th row. Continue in this manner until 18 stitches remain for each shoulder. Shape the shoulders, casting-off 6 stitches at the armhole edge of each alternate row, completing first the one shoulder. Push Holding Cam Levers up.

Both Pattern Dials on "K". See that all latches are open. You will now be back to normal knitting.

Complete the casting-off of the other shoulder.



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